Competitiveness and Sustainable Economic Recovery in Thailand

Volume I
Bangkok, May 1998

Edited by Johanna Witte, Stefan Koeberle and Milena Novy, The World Bank and Thanin Pa-Em, NESDB

A Joint Publication of the Office of the National Economic and Social Development Board and the World Bank Thailand Office
Competitiveness
and
Sustainable Economic Recovery
in Thailand

Volume I
Proceedings of the Conference
"Thailand's Dynamic Economic Recovery and
Competitiveness"
Bangkok, May 1998

Edited by Johanna Witte, Stefan Koeberle and Milena Novy, The World Bank
and Thanin Pa-Em, NESDB

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The Conference "Thailand's Dynamic Economic Recovery and Competitiveness" (Bangkok, May 20-21, 1998) was organized by the Office of the National Economic and Social Development Board (NESDB) with assistance from the World Bank and additional financial support from the Industrial Trade Promotion Fund and the Canadian International Development Agency. This conference was based on initial results from background work on competitiveness undertaken by Thai scholars and policy makers and the World Bank under a joint study project. The objective of the conference was to stimulate discussion on key structural reforms and policies for addressing the present crisis and to help develop a medium-term strategy for improving Thailand's competitiveness over the next decade. By presenting strategy notes on key areas to decision makers in the public and private sectors, it helped focus the discussion on options for increasing Thailand's competitiveness in the production and export of skill- and technology-intensive products. These areas include the macroeconomic framework, the financial sector, the industrial and export sectors at the firm and sectoral levels, infrastructure, and education. The conference was enriched by comments from discussants from Thailand as well as other East Asian countries who provided valuable lessons from their experience. The conference also benefited from the knowledgeable guidance of the chairpersons for individual sections.

This publication makes the results of the joint study project and the discussions of the conference accessible to a wider public. The main contributions are published, in two volumes: Volume I summarizes the conference proceedings, including welcoming remarks by NESDB Secretary-General Wirat Wattanasiritham, the keynote speech by Deputy Prime Minister Supachai Panitchpakdi, as well as experts' presentations and comments made by discussants. Volume II contains background papers, including those prepared by scholars for the conference as well as three studies contributed by Thai researchers.

We would like to thank all those who contributed to the study and who helped make the competitiveness conference a success. The study and the conference represent a joint effort that would not have been possible without input and support from many individuals from Thailand and the World Bank, including representatives from NESDB, the Thailand Development and Research Institute (TDRI), the Bank of Thailand, the Ministry of Commerce, and the World Bank's East Asia Region.

We thank Kanit Sangsubhan and his team for patiently working with the World Bank over many months to produce this publication, and the NESDB Board for supporting our endeavors. Many thanks are also due to the authors and their research assistants for providing the substance of the work on competitiveness and for their kind cooperation during the review process. We would also like to acknowledge support from senior World Bank staff, notably Javad Khalilzadeh-Shirazi and Francis X. Colaço who have long recognized competitiveness as a critical issue, Jayasankar Shivakumar and Masahiro Kawai whose strong commitment for this project encouraged us to devote our time to preparing the conference and editing the studies, and, finally, Tom C. Tsui and his team who provided invaluable assistance from the World Bank headquarters in Washington.

Please note that the respective authors are solely responsible for the contents of their papers. Opinions expressed in this publication are not intended to represent an official statement of NESDB or World Bank policy, but only serve to encourage a debate on policy options for assisting Thailand's economic recovery.

The Editors
CONFERENCE PROGRAM

May 20, 1998

Welcome Address: Wirat Watanasiritham
Keynote Speech: Supachai Panitchpakdi

Session 1.
Competitiveness and the Macroeconomic Framework

Chair: Thammarak Karnpisit

Francis X. Colaço:
"Thailand's International Competitiveness: A Framework for Increased Productivity"

Kanit Sangsubhan:
"Thailand's Macroeconomic Framework and Competitiveness: Current Understanding and New Policy Considerations"

Dominique Dwor-Frécaut:
"Thailand's Twin Crises: Export Competitiveness, Investment Efficiency and Financial Fragility"

Peter G. Warr:
"Thailand: What Went Wrong?"

Discussants: Chalongphob Sussangkarn, Teerana Bhongmakapat

Session 2.
Restructuring the Financial System: Options

Chair: Chavalit Thanachanan

Somchai Ruechuphan (on behalf of Pisit Leeahtam):
"Financial Sector Reform"

S. Ghon Rhee:
"Thai Capital Markets: Challenges and Reforms"

Bertrand Renaud:
"How the Thai Real Estate Boom Undid Financial Institutions: What Can Be Done Now?"

Discussants: Bernhard Eschweiler, Sirichai Sokornrattanakul
May 21, 1998

Session 3.
Competitiveness of the Industrial Sector (I): Technology and Corporate Finance

Chair: Staporn Kavitanon

David Dollar, Mary Hallward-Driemeier:
"Short-Term and Long-Term Competitiveness: Issues in Thai Industry"

Stijn Claessens:
"Thailand's Corporate Financing and Governance Structures: Impacts on Firms' Competitiveness"

Discussants: Chintay Shih, Dong-Sung Cho, Akira Goto, Tawee Butsuntorn

Session 4.
Competitiveness of the Industrial Sector (II): Industrial Structure and Exports

Chair: Somphob Amatayakul

Sanjaya Lall:
"Thailand's Manufacturing Competitiveness: An Overview"

Frauke Kraas:
"Industrial Structure and Spatial Strategies for Industrial Competitiveness in Thailand"

Discussants: Supavud Saicheua, Shinji Asanuma

Session 5.
Bottlenecks to Productivity (I): Infrastructure

Chair: MR. Chatumonkol Sonakul

Hans J. Peters:
"Thailand's Trade and Infrastructure"

Discussants: Praipol Koomsap, Kazayuki Mori

Session 6.
Bottlenecks to Productivity (II): Labor Markets and Skills Development

Chair: Sippanondha Ketudat

John Middleton:
"Skills for Competitiveness"

Robert Townsend:
"Removing Financial Bottlenecks to Labor Productivity"

Discussants: Rung Kaewdang, Medhi Krongkaew, Ammar Siamwalla

Concluding Comments: Sippanondha Ketudat
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Deputy Prime Minister and Commerce Minister,
Dr. Supachai Panitchpakdi,
Deputy Finance Minister, Dr. Pisit Leetham,
Representatives from the World Bank,
Distinguished Experts, and Participants,

On behalf of the Office of the National Economic and Social Development Board (NESDB), I would like to express a warm welcome and sincerely thank all distinguished participants gathering here today at the Conference on Thailand's Dynamic Economic Recovery and Competitiveness. It is a great honor to have Dr. Supachai Panitchpakdi, Deputy Prime Minister, with us for the opening ceremony, and presenting the keynote speech.

Strengthening competitiveness is a subject that NESDB, a central agency for development planning, has given a high priority. Competitiveness is not only an important component of the Eighth National Economic and Social Development Plan, but also one of the four main topics highlighted in the Revised Eighth Plan, which takes into account the economic crisis. Restructuring the economy and strengthening its competitiveness should go hand in hand with regaining economic stability, reducing harmful social and human impacts, and ensuring good governance.

Distinguished Participants,
Ladies and Gentlemen,

This seminar is part of a joint study project undertaken by Thailand and the World Bank, namely Thailand's Competitiveness: An International Comparison. The objective of this study is to acquire the right direction and concrete and practical policies and measures on Thailand's economic restructuring and competitiveness. The framework of the project has been designed based on equal participation by Thailand and the World Bank. Both sides have closely worked together, identifying topics and issues and taking responsibility according to the expertise of each side.

On the Thai side, it is our strong intention to use this project as a platform for a participatory process, involving all agencies concerned in the long term. Each responsible agency has been advised to assume responsibility for a certain topic, while being supported by other related agencies. Renowned Thai researchers have been requested to join the program. In this context, the Research Bureau of NESDB plays the role of a coordinating agency. I would like to take this opportunity to thank the responsible agencies as well as the International Trade Promotion Fund for providing financial support, thereby making possible the project, including this seminar.
On the World Bank side, many distinguished experts from many parts of the world have been invited to join the project. They play a crucial role in sharing new ideas and experiences from countries that have succeeded, at least to some extent, in restructuring their economies according to their comparative advantage. I believe that this joint research program, based on the principle of equal partnership, could be generalized as a model for future projects. I would like to take this opportunity to express my sincere thanks to the World Bank and its research team as well as to the experts for their cooperation and concern for Thailand's recovery.

The study project has come quite a long way and has shown major results. Though preliminary, the findings are significant, with firm enough evidence to serve as the basis for discussion. Among 200 distinguished participants today, we have about 50 foreign experts from many countries including Japan, South Korea, Taiwan, Singapore, Germany, Australia, and the United States, as well as experts from the World Bank and the Asian Development Bank who are playing a major role in assisting Thailand's economic restructuring. Also, we have about 125 Thai participants from various research institutes, and representatives from both the public and private sectors.

The seminar will be composed of the following six sessions:

1. Competitiveness and the Macroeconomic Framework;
2. Restructuring the Financial System;
3. Competitiveness of the Industrial Sector, Technology and Corporate Finance;
4. Competitiveness of the Industrial Sector; Export Competitiveness and Spatial Strategies;
5. Removing Bottlenecks in Infrastructure Services; and

We hope that this seminar will produce new thoughts and ideas which can be translated into policy measures to address the country's needs. Apart from making them available to the public, the results will be submitted for consideration to the Economic Restructuring and Competitiveness Committee. Thank You.
Conference on Thailand's Dynamic Economic Recovery and Competitiveness
Keynote Speech

KEYNOTE SPEECH

Supachai Panitchpakdi, Deputy Prime Minister of Thailand

Revisiting Thailand's Competitiveness

Ministers.
World Bank Officials,
Distinguished Participants,

It is an honor for me to have the privilege of giving a keynote speech in this important Seminar on Thailand's Dynamic Economic Recovery and Competitiveness. This seminar is the result of joint efforts of the Thai Government and the World Bank to investigate Thailand's competitiveness in a study entitled Thailand's Competitiveness: An International Comparison.

Indeed, the Thai Government under the leadership of Prime Minister Chuan Leekpai has made clear in its addresses to Parliament that economic restructuring with the aim of restoring competitiveness is the key to recovery and a prerequisite for sustainable development. At this very crucial turning point in the history of our country, we are grateful to welcome distinguished economists from the Asian region and other parts of the world to come and share their ideas, and work with us on solutions.

As you all know, the current crisis in Thailand has caused serious damage to the financial sector and has shaken the credibility of macroeconomic management. During the past six months, the first priority of the Government was to reestablish credibility by focusing on financial stability and by correcting fundamental problems in the financial sector. Needless to say, competitiveness cannot be established without stability and predictability of fundamental economic conditions.

May I take this opportunity to report to you today that although there remains much work to be done, the Thai economy is adjusting in the right direction. The exchange rate, which fell below 50 baht/US$ in January 1998, has regained value and stabilized at around 40 baht/US$. The inflation rate, though slightly above 10 percent, is low in comparison to that of other countries in a similar situation of adjustment. The interest rate has also begun to fall in response to the stabilization of the exchange rate.

As stability is a pre-requisite to economic recovery, our government will continue to focus on improving credibility and ensuring financial stability. At the same time, without a good economic environment, the real sector cannot regain its momentum in generating real value added and employment. We believe that an environment to sustainably nurture and support the real sector should be developed and harmonized with the new global environment and changing domestic and regional conditions.
Distinguished Participants,

The concept of competitiveness is not new to Thailand. Three years ago, when Prime Minister Chuan was in office, the Government integrated the competitiveness issue into its policy framework and published the *White Book on Strengthening Thailand's Competitiveness*. Eighteen strategies were laid out, ranging from macroeconomic management to export competitiveness, technology and human resource development, and various sectoral policies. The *White Book* laid out a basic assumption underlying the study:

*as the economy has increased its degree of openness and our comparative advantage in low-cost labor has disappeared, it is necessary to build up other areas of comparative advantage to increase domestic competitiveness in the world market. The next structural adjustment cannot shy away from utilizing capital and technology more efficiently through systematic human resource development.*

In other words, it was already seen at that time that to restructure the economy, Thailand must utilize capital wisely by focusing on upgrading technology and human resources. Unfortunately, over the past three years, the capital accumulated has not been used according to these principles. Instead of using the capital for technological upgrading, investments were biased toward the pursuit of short-term speculative profits. Now is the moment for policy reorientation with the aim of restoring Thailand’s competitiveness.

At the government level, an *Economic Restructuring and Competitiveness Committee* has been established to coordinate and consolidate competitiveness policies and catalyze economic restructuring. I appreciate that the World Bank has been working with us for some time on reshaping our competitiveness policy, even before the emergence of the crisis. Many valuable ideas have been put forward in the papers, and this seminar will give us a chance to sharpen the direction of our efforts before translating these ideas into policy measures.

Ladies and Gentlemen,

We acknowledge that the road ahead, as far as competitiveness is concerned, is not as smooth for Thailand as it was three years ago. There are a few factors constraining our attempts to increase competitiveness.

First, capital - once easily available - has become scarce. It will take Thailand some time to recover financially from the crisis. To the private sector, limited capital means higher interest rates, implying that for a project to qualify for financing, it must be financially sound and promise a high return. New capital constraints have forced the private sector to return to the basics: that is, to be more selective, to choose investments that produce high value added at low risk, to focus on improving productivity, and to cautiously monitor progress based on sound accounting and financial strategies.

In addition to the scarcity of private capital, fiscal resources of the public sector will also be limited in the years to come. Part of the government budget will be tied up with commitments made in restructuring the financial sector. Therefore, we cannot expect a strong financial stimulus to boost the economy, a strategy other countries' governments relied on. In retrospect, the Thai government has done well in leaving the real sector development up to the private sector while maintaining fiscal discipline. What the government can and must do

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now is to work closely with the private sector towards economic restructuring by creating the necessary market conditions.

Hopefuliy, there are some measures we can rely on to overcome capital scarcity. To name just two: the private sector should give more attention to cost-efficiency and the viability of investment, and we should improve cooperation between the public and private sectors. We must work together as a team, and understand that a cooperative game will serve the interest of each player best, as well as the national interest.

Apart from capital constraints, a second limitation is the need for more precaution in business activities to cope with higher risks due to exchange rate volatility and turbulence in currency markets. These circumstances are impeding efforts to restructure the real sector.

As government, we must find appropriate measures to insulate or lessen uncertainty from exchange rate risks. These measures will enable investors and manufacturers to estimate their net expected profit from investment, at least until they can write off their fixed costs. In this regard, a long-term financial intermediary and exchange rate insurance scheme must be encouraged at an early stage of restructuring.

From the current Asian crisis, we have learned that the linkage between the financial and real sectors are strong, not only nationally but also regionally. The flow of short term capital and the volatility of the exchange rate have disrupted the flow of goods and services. I would like to encourage the distinguished economists participating in this seminar to consider the real objective of economic development, which is to benefit people.

Distinguished Participants,

During the past ten months since Thailand has entered the crisis, one can notice that real sector restructuring has been at the top of the agenda, side-by-side with financial restructuring. Various proposals for real sector restructuring have been drafted by the Ministry of Industry, the Ministry of Agriculture and Co-operatives, the Ministry of Science, Technology and Environment, the Tourist Authority of Thailand, and the Thailand Development Research Institute (TDRI). Each of these contain ideas, programs, work plans, and projects that demonstrate deep concern over the future of Thailand’s competitiveness. The Economic Restructuring and Competitiveness Committee is working to combine these proposals into one solid package. I would like to report some of the major directions and recommendations of these proposals.

First, liberalization in trade and services will continue. This is an important condition for creating a competitive environment in the domestic market while enhancing the competitiveness of Thai products on world markets.

Second, it is clear that technology holds the key for the next phase of real sector restructuring. It is well understood that the core of technology improvement must be at the firm level. Therefore, working at the upper level of the general incentive scheme may not be enough. A better way to accomplish technological upgradation may depend on raising concern among firm owners, reshaping incentive instruments towards demand driven schemes, and selecting appropriate commercial technology with close assistance from the public and private sectors. At the early stage, a key measure would be to send an expert in technology and finance to firms to assist them in developing bankable projects.

Third, economic management requires good governance in both the public and private sectors. For the public sector, discrimination against big and influential business must be stopped. Transparent rules across all firms and investors must be instituted. The new constitution has given a clear guideline for government practice and civil service reform. Good governance also covers good business practices in the private sector. The financial
sector should abolish the patronage system. We have seen clearly that such a system created the bubble economy and led to misjudgment in investment decisions. Productive businesses must also stop cheating in their accounting practices. A good accounting system is the only means for accurately evaluating firms’ performance, while equality in tax-payments implies that honest firms will be given the chance to prosper.

Fourth, the next phase of development should be based on sustainability. Three areas are of concern. First, in the development of agriculture, industry and tourism, we must conserve natural resources and not destroy the natural environment. Any activities that lead to environmental hazards are unacceptable. Second, supporting industries that can deepen their technology and increase value added should be promoted. Third, and perhaps most importantly, an economically self-sustainable rural economy must be promoted because, as the crisis has shown, the rural economy is Thailand’s last resort. It cannot only insulate the poor from external shocks but can also act as a basis for building local financial wealth and knowledge.

Finally, it is necessary to set up an Information Watch Tower. This crisis has taught us the important lesson that failure to provide timely and transparent information, as well as reliable economic forecasts, has created false illusions among both domestic and foreign investors. Still worse, this failure reduces the ability of government to issue timely policy responses. It is important now more than ever to consider means for improving the data system and establishing an Information Watch Tower in Thailand.

Distinguished Participants, Ladies and Gentlemen,

This seminar will focus on new directions for increasing competitiveness, and on learning from the experience of other countries, especially those that have experienced similar difficulties. Your willingness to assist Thailand in these difficult times will be remembered. The ideas, proposals and suggestions put forward during this seminar will be seriously considered by the Thai government.

I would like to take this opportunity to wish all of you success in the work you are going to undertake in the next two days. Thank You.
SESSION 1. COMPETITIVENESS AND THE MACROECONOMIC FRAMEWORK

Presentations

Presenter: Francis X. Colaço, Asia-Pacific Management Consultants

Thailand’s International Competitiveness: A Framework for Increased Productivity

Two Decades of Economic Growth

The past two decades were a period of unprecedented economic growth and social development for Thailand. Economic growth rates were high, and the incidence of absolute poverty declined dramatically.

- Per capita income rose from $700 a year in the late 1960s to $2,700 in 1996.
- Living standards and critical social indicators also improved dramatically. Life expectancy rose from 56 years in the late 1950s to 70 years in the early 1990s; primary school enrollment increased from 70 percent of eligible children in 1965 to almost universal enrollment by the mid-1980s. This remarkable socioeconomic progress was driven by a combination of conservative macroeconomic policies and private investment, both domestic and foreign.
- The gains, however, were not evenly distributed. Although the incidence of absolute poverty declined significantly (from 57 percent in 1962 to 14 percent in 1992), the distribution of income and wealth became less equal.
- Growth was accompanied by environmental degradation and natural resource depletion, as it has been in many other East Asian economies. The cost of lead and dust pollution in the Bangkok metropolitan area alone is estimated to be equivalent to 10 percent of the city’s annual income; the cost of traffic congestion in the capital amounts to $400 million a year.

Since the 1970s, Thailand has become increasingly integrated into the world economy through trade and private capital flows. Globalization demands high levels of policy performance and exacts a high price for policy mistakes and weak institutional structures. Domestic economic management has also become more demanding as the economy has become more complex. Corporate governance has become more critical to the country's economic welfare as the private sector has taken a greater role in economic activities.

In the early 1990s, signs began to emerge that Thailand's growth was slowing down and that Thai firms were losing their competitiveness in international markets. This was becoming particularly true for firms that produced labor-intensive products. It is the argument
of this paper that the loss of competitiveness (and its restoration) essentially involves the productivity of resource utilization. The evidence indicates that Thai firms that use resources productively remain internationally competitive (even when others in the same sector do not) provided that the business environment, determined by government policies and social sector investments, is supportive. Thus, the restoration of competitiveness requires changes in the business environment and in the behavior of firms in this private sector-led economy.

Policy Recommendations

Changes in five areas will be necessary to prevent repetition of some undesirable consequences of past policies and of economic growth itself.

First is the need to improve economic management. Thai economic policy has been most effective in maintaining macroeconomic equilibrium and in supporting trade, investment, and the activities of the private sector. It has been less successful in sectoral policies, which have been affected by patronage, clientelism, and rent-seeking.

Second is the need to increase the productivity of investment. Historically, the main source of output expansion in Thailand has been increases in inputs rather than improvements in productivity. In the 1960s and 1970s agricultural output increased primarily because of an extension of the area under cultivation. Yields remained low. In the 1980s expansion of output of manufactures was achieved mainly through increases in investment, including foreign direct investment. The very high investment rates of the late 1980s and early 1990s produced high output growth rates. These investment rates, however, were much higher than in some neighboring countries that experienced similar growth (China, Indonesia, Malaysia, Singapore), thus implying a lower relative productivity of investment in Thailand. Moreover, investment rates increased over time while growth rates declined, indicating that a higher investment effort was required to achieve declining, albeit still high, growth rates. Overheating of the economy was fueled by increased recourse to foreign capital flows on commercial terms to supplement the already high level of domestic savings.

Third is the need to build up the country's physical and human capital. Thailand missed an opportunity to enhance these resources during the economic boom. Public policies did not exploit the economic expansion to develop an effective public-private partnership for improving the country's physical infrastructure at a pace commensurate with its needs. As a result, bottlenecks in physical infrastructure and allied services are beginning to reduce the competitiveness of Thai firms. Failure to develop the country’s human capital represents a far more serious problem. The education and skill levels of the Thai population lag behind those of neighboring countries in some important dimensions. The public sector played only a limited role in fostering applied industrial research and development (R&D) and dissemination of market information and knowledge on technological advances. Physical infrastructure development, education and training, R&D, and dissemination of information on markets and technologies are public goods. In a country at Thailand's level of development, the public sector has a legitimate role to play in providing these goods, which generate large spill-over effects and positive externalities.

Fourth is the need to establish laws, regulations, and administrative practices that determine property rights and corporate relations in an increasingly complex and private sector-led, market-based economy. Traditionally, this institutional framework has evolved only slowly in Thailand; it has not kept up with the requirements of a globalized and increasingly complex economic structure. As a result, the introduction of true competition in both the manufacturing and financial sectors has taken place slowly. Exit of nonviable firms through mergers and acquisitions has been a slow and difficult process. Weaknesses in auditing and accounting practices have hindered public flotations in both manufacturing and financial firms and have stymied the development of asset markets. As a consequence,
collateral for bank lending is generally in the form of real estate, and spikes in asset prices contribute to overheating of the economy. The slow evolution of the legal framework has also contributed to the increased administrative discretion left to the bureaucracy.

Fifth is the need to enhance the capacity of the bureaucracy. The restructuring of the Thai economy for economic growth in the past few decades depended strongly on a national consensus favoring economic growth and on an elite bureaucracy that effectively implemented the strategy. In recent years, however, there has been a dilution in the professionalism of the bureaucracy, as rent-seeking has increasingly affected sectoral decision making. There has also been a substantial drain of high-quality staff from the public to the private sector, as remuneration differentials between the two sectors grew. The weak response of the bureaucracy to the onset of Thailand's financial crisis reflects these institutional shortcomings.

Finally, substantial environmental degradation has accompanied rapid economic growth. Air and water pollution and natural resource depletion not only increase health costs and reduce workers' efficiency, but also increase production costs and affect quality and competitiveness. Thailand has already seen the adverse effects of environmental factors on seafood exports to Europe. Increasingly, exports to industrial country markets will be required to meet ISO14000 standards. Thailand made a big push to achieve ISO9000 standards; a similar effort will be required to meet international environmental standards if Thailand's international competitiveness is not to be adversely affected.

A Framework for Increased Productivity and Competitiveness

This paper identifies five principal areas in which action is required. These constitute a framework for increasing productivity, which represents the essential precondition for restoring and maintaining Thailand's international competitiveness:

- Establishing a sound macroeconomic framework and implementing appropriate policies
- Enhancing skills development and functioning of the labor market
- Developing the financial sector
- Developing the industrial sector
- Improving infrastructure services

The five areas are interrelated, and a program of action should exploit the complementarities and synergies between them. The overarching objective of this exercise is to resume the robust growth experienced by Thailand in recent years, while ensuring that major deleterious consequences of this growth for income distribution and the physical environment are avoided. In other words, the goal is to achieve self-sustaining economic growth that benefits all segments of society.

The Thai economy has performed well in the past, and prospects for the resumption of rapid growth remain good. The country has not only effectively dealt with crises, it has recovered and prospered. By quickly identifying and implementing the required measures, the Government of Thailand can shorten the period of adjustment and ensure that the rebound will be robust. The prospects for the repetition of historical experience remain good.
Thailand's Macroeconomic Framework and Competitiveness: Current Understanding and New Policy Considerations

The ongoing economic crisis in East and Southeast Asia, which began as a financial crisis and is developing into a social crisis, is a dramatic illustration of two interdependencies: (i.) between financial flows and the real economy; and (ii.) between the economic "subsystem" and the broader institutional and societal setting.

The aim of this paper is to provide an overall picture of the relationship between Thailand's macroeconomic framework and the requirements for the restructuring of the real sector. It reflects the key lessons from the preliminary results of the study project, Thailand's Competitiveness: An International Comparison, a joint project of the Royal Thai Government and the World Bank. In addition to the widely shared view of the causes of the crisis and the policy measures needed in response, this paper presents new facts and policy recommendations emerging from the Competitiveness Study for future policy consideration. Moreover, the paper introduces additional issues that are under discussion in Thai policy circles. Hopefully, some of these issues will become discussion points in the seminar. The paper is composed of five sections: causes of the crisis; resulting impacts; policy responses; recommendations arising from the study; and other policy recommendations highlighted by the Thai contributors, but not addressed in the study.

Causes of the Crisis

When the economic crisis hit Thailand, the public understanding was that the main cause of the crisis was excessive reliance on short-term capital in the years preceding the crisis. This reliance fed primarily short-term speculative activities in the real estate and stock markets. The crisis, then, was primarily seen as a "financial" crisis.

A key element in the evolution of the crisis was the adoption of inappropriate policies, such as continued maintenance of the fixed parity of the baht against the US dollar, and its defense at all costs against attacks by hedge funds. Another inappropriate policy was to tolerate the accumulation of an unsustainable level of non-performing loans (NPLs) in the financial sector, subsidized by the FIDF (Financial Institution Development Fund).

The study shows, however, that Thailand also had deeper structural problems, including misallocation of investment, since the early 1990s. Dominique Dwor-Frecaut et al. show that Thailand’s Incremental Capital Output Ratio of Investment (ICOR) increased from 3.1 during 1985-90 to 6.4 in 1996, which is high compared to other developing countries. Pranee Tinakorn and Chalongphob Sussankarn (1996) confirm that the contribution of total factor productivity (TFP) growth to GDP growth declined from 40 percent during 1985-90 to 21 percent during 1990-95. Even before the financial crisis hit, there were clear signs of falling competitiveness, reflected in the stagnation of exports in 1996. David Dollar and Mary Hallward-Driemeier found in their survey that overvaluation of the exchange rate by about 20 percent in 1994-96 reduced profits of the export sector from around 30 percent to less than zero in 1996.
In fact, the crisis did not come without a warning. The White Book on Strengthening Thailand’s Competitiveness, prepared in 1994 by the Competitiveness Subcommittee chaired by Dr. Supachai Panitchpakdi, clearly highlighted two important points: i. concern over the bubble economy, and ii. the need for a shift from low cost capital to a more efficient use of capital and associated improvements in technological capability. Unfortunately, these observations and suggestions did not lead to appropriate policy responses.

Impacts of the Crisis

It is widely known that Thailand spent much of its US$39 billion of foreign reserves, as well as about US$12.5 billion for FIDF’s operations. The crisis is expected to lead to a severe contraction of the economy in 1997, in the order of 5% of GDP, with inflation of around 10 percent. The direct social cost is likely to be in the order of 2-3 million unemployed, mostly skilled and new graduates.

The survey by David Dollar et al. (see Session 3) shows a sharp decline in capacity utilization during the first and second quarters of 1998, coupled with gloomy expectations for business. This may lead to a further reduction in production, and possibly higher unemployment than expected. These findings present warning signs for short-term policy and economic management.

Policy Responses

In revising the Eighth National Economic and Social Development Plan to reflect changing circumstances, four areas have been given the highest priority:

- Economic rehabilitation and stability maintenance
- Reducing the social and human impacts of the crisis
- Economic restructuring
- Good governance

Recommendations Emerging from the Competitiveness Study

The following recommendations should be considered by policy makers in response to the present crisis:

Macroeconomic Framework. Reconsider tight fiscal and monetary policies in order to minimize unnecessary bankruptcies and unemployment; that is, focus on the linkages between financial flows, the behavior of the “real economy”, and social consequences. Keep in mind that financial restructuring requires patience, determination, and commitment.

Economic Restructuring and Competitiveness. Focus on technology improvements at the firm level; improve incentives for training; revise investment promotion to focus on generating a good support environment instead of incentive programs targeted at specific firms and industries; increase the number of engineers.

With respect to corporate finance, revise the financial system to address the needs of small and medium-sized enterprises (SMEs), matching their demand conditions and requirements; improve financial discipline, especially at large firms, by setting-up a mobile supervision unit. Increase transparency in rules and regulations, especially those relating to international trade, in order to create the “stability of expectations” necessary for economic activity.

Infrastructure. Foster close cooperation between the public and private sectors to provide necessary hardware and software to develop modern logistics services supportive of
new production practices such as "just-in-time" systems. Create a responsible core agency to oversee this sector.

**Labor Markets and Training.** Correct labor market imperfections by improving information availability and facilitating match-making; encourage the introduction of demand driven training programs by setting up a pilot project with a key industry; remove financial bottlenecks in agriculture and rural areas in general by strengthening the role of the Bank for Agriculture and Agricultural Cooperatives (BAAC) as a rural development bank; encourage the emergence of efficient cooperatives; facilitate the diversification of commercial banking activities towards rural areas; and improve related information systems.

**Education.** Turn the crisis into an opportunity for the development of human resources by investing in labor training and higher education for those waiting for jobs; improve the quality of education, focusing on problem solving, communication skills, and teamwork, and improving the standards of educational technology; encourage private sector participation in the provision of higher education to support university education to improve the quality and increase the quantity of scientists and engineers.

**Policy Recommendations from the Thai Side**

**Information Watch Tower.** Creating an "Information Watch Tower" as a center of socio-economic information networks would improve the information base for policy formulation. The Information Watch Tower would serve as both a monitoring and a preventive tool.

**Good Governance.** The lack of "good governance" in both the public and private sectors has been one of the causes of the crisis and a bottleneck in its management. Policy makers should improve efficiency and effectiveness of the bureaucracy through the public policy framework, and strengthen professionalism in both financial and real sectors by improving the institutional environment of corporate governance, including rules, regulations, monitoring, and enforcement of codes of conduct.

**Fund for Real Sector Restructuring and Competitiveness.** The Thai government will launch a program to address and restructure rules and regulations that obstruct business practices. This will help create a new environment for investors by building a more effective incentive framework. The Economic Restructuring and Competitiveness Committee has also announced specific initiatives to support economic restructuring and boost competitiveness to ensure an effective transition from stabilization to growth through structural adjustment.
Thailand's Balance of Payments and Financial Crisis: Export Competitiveness, Investment Efficiency and Financial Fragility

Current Account Sustainability

It has often been argued that large current account deficits that finance investment are sustainable because they will eventually translate into a larger capacity to export. The current crisis is a stark reminder that the traditional condition for sustainability of current account deficits, that the growth rate of net exports has to be higher than the interest rate paid on foreign savings, is still valid. In 1996-97, this condition was no longer holding. An increasingly large share of savings, both foreign and domestic, was channeled to the nontradable goods sector, real estate especially, and exports lost their competitiveness.

To regain the sustainability of the current account deficit, two conditions are necessary. First, enough investment in the tradable goods sector needs to take place so that the build up in the stock of external debt caused by the external deficit is matched by a build up in export capacity. It matters where investment takes place because some investment, for instance real estate, cannot be easily transferred from the nontradable to the tradable goods sector. Some firm level evidence also shows that Thai firms that were producing for the domestic market are finding it difficult to switch their production to the export market. In order for enough resources to be channeled to the tradable goods sector, the exchange rate, and also the tax regime and the domestic distribution system, must supply the appropriate price signals. Second, Thailand must tackle its competitiveness problem. Prior to the crisis, Thailand's unit labor cost had been rising faster than those of its competitors. The resumption of export growth will either require lower labor costs or higher productivity of all factors of production. Lower labor costs could be brought about through a moderation in wage growth or through exchange rate policy, both of which would lower Thai income in the long run. Productivity growth would restore competitiveness and bring about an increase in income per capita.

The current crisis has also exposed new forms of vulnerability. Korea had a current account surplus by the time the crisis hit and Indonesia had a small deficit. This suggests that the conditions linking the sustainability of the current account deficit to the build up of export capacity and the rate of growth of exports are no longer sufficient to guarantee financial stability. With the liberalization of the capital account, the greater degree of financial integration of the Thai economy and the small size of the domestic assets markets relative to international flows of capital, new forms of instability have emerged. For this reason, the nature of foreign savings has become a key determinant of their sustainability. The indebtedness of the private sector needs to be closely monitored. Countries such as Malaysia and Taiwan that have placed controls on short term borrowings of the financial and nonfinancial sectors have showed greater resilience to a change in market sentiment. Thailand may also want to avail itself of the international experience in controls on capital inflows to decide on appropriate policies for its own economy.

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1 This presentation is based on a paper by Dwor-Frecaut, The World Bank, and Kobsak Pootrakool and Veer Mallikamas, The Bank of Thailand.
The Resumption of Rapid and Sustainable Growth

To move back on a growth path that is both sustainable and rapid, Thailand needs to improve the efficiency of investment rather than increase domestic savings. Thai domestic savings are high by international standards and are thus unlikely to rise any further. A comparison of the Thai savings to GDP ratio over 1990-95 shows that only China, Malaysia and Singapore have had higher savings rates than Thailand.

Thailand’s remarkable growth performance has been based on high levels of investment relative to GDP: the ratio of investment to GDP has risen from 23 percent of GDP on average in the 1980-85 period to 42 percent in 1996. A comparison of the investment to GDP ratio with that of other middle income countries over the 1990-95 period shows that Thailand has invested more, relative to GDP, than any other country.

In addition, there is some evidence that, over the past few years, Thailand’s growth performance has been the result of higher levels of investment rather than of rising productivity of investment. While output growth has remained high at 8 percent on average over 1990-95, it has not kept up with the rising investment to GDP ratio. This suggests that investment efficiency has been declining. A rough measure of investment efficiency, the Incremental Capital Output Ratio (ICOR), has been rising from 3.1 on average during the 1985-90 period to 6.4 in 1996. An international comparison of ICORs among middle income countries shows that countries with growth paths roughly comparable to that of Thailand over the 1990-95 period -- Argentina, Chile, China, Singapore-- have ICORs ranging from three to 4.2.

Two Long-Term Growth Scenarios

The attached table shows two long-term growth scenarios that illustrate the impact of different levels of investment efficiency. International experience has shown that most countries have found it difficult to maintain a current account deficit in excess of 3 percent of GDP for a long period of time. Both scenarios assume that Thailand can, on average, mobilize that amount of stable foreign savings. Both scenarios assume that, to reflect the budgetary cost of the restructuring of the banking system, domestic savings decline by 3 percentage points of GDP relative to their 1990-95 level, fully due to a decline in public savings-- private savings remain constant relative to GDP.

In the first scenario, the current account deficit is brought back on a sustainable path but there is little or no structural adjustment and the ICOR remains at a pre-crisis level of six. To accommodate the decline in foreign and domestic savings, investment has to decline by 8 percentage points of GDP to 34 percent of GDP from its pre-crisis level of 42 percent of GDP. However, because of the very high level of domestic savings, long-term growth remains at a respectable 5.5 percent a year, which is low by both historical and East Asian standards.

In the second scenario, investment efficiency increases markedly: the ICOR moves back to four -- above its 1985-90 level and in the upper range for Chile, China, Argentina and Singapore. Based on these assumptions, Thailand could regain a long-term sustainable growth rate of about 8.5 percent a year, in line with pre-crisis growth rates in East Asia.

3 The ICOR is equal to the ratio of investment to GDP divided by the rate of growth of GDP.
Thailand: Savings, Investment, and Growth (Percentage of GDP)

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<tr>
<td>Output growth (% change)</td>
<td>5.4</td>
<td>10.3</td>
<td>8</td>
<td>6.4</td>
<td>5.5</td>
<td>8.5</td>
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<tr>
<td>ICOR</td>
<td>5.3</td>
<td>3.1</td>
<td>5.1</td>
<td>6.4</td>
<td>6</td>
<td>4</td>
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<tr>
<td>Investment</td>
<td>28.8</td>
<td>31.8</td>
<td>41.1</td>
<td>41.0</td>
<td>34</td>
<td>34</td>
</tr>
<tr>
<td>Domestic Savings</td>
<td>22.9</td>
<td>25.5</td>
<td>33.6</td>
<td>33</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>Current Account Deficit</td>
<td>5.9</td>
<td>6.3</td>
<td>7.5</td>
<td>8</td>
<td>3</td>
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Policy Recommendations to Increase Investment Efficiency

Two types of changes are needed to bring this about: a better allocation of investment based on a more efficient financial system and on stronger corporate governance; and better public services to support the private sector. The financial system has a key role to play to raise the efficiency of investment. In this context, the current restructuring of the financial sector has significant consequences for long-term growth. Better incentives will also rely on adequate capitalization of financial institutions and on the better accounting, auditing, and reporting requirements that the Government is currently implementing. These will be complemented by the strengthening of supervision and regulation of the financial system initiated by the Government. Finally, the deepening of the domestic debt market will eventually result in lower costs of financial intermediation and better allocation of capital.

Corporate governance needs to be strengthened. Thailand has traditionally relied on large family-owned conglomerates to mobilize and allocate savings. These conglomerates have included financial and non-financial corporations. In this context, much of the corporate cash flows of and the resources collected by financial institutions are allocated to companies that belong to the conglomerates, rather than basing these decisions on objective economic analysis. Today, many of these family owned groups are listed on the stock exchanges of the region, but they remain closely held. As a result, much connected lending is still taking place. Furthermore, this has led to a high degree of leverage in the nonfinancial sector. Moving to more market based mechanisms to allocate savings will require development of the capital markets as well as a number of institutional changes to allow these markets to exert more discipline on companies, such as protection of minority shareholders, bankruptcy laws, and strengthened roles for the boards of directors.

Lastly, the quality of public services -- not least infrastructure -- needs to be strengthened. There is strong evidence at the firm level that the current practices of customs administration constitute a major impediment to the expansion and upgrading of exports. The congestion and poor quality of infrastructure services are also having a major negative impact on the productivity of the private sector. Furthermore, the limited availability of skilled manpower has also been identified as a major factor in the upgrading of the industrial structure and the achievement of faster productivity gains.
Thailand: What Went Wrong?

From 1988 to 1995, the Thai economy was the fastest growing in the world, with moderate inflation, a stable exchange rate, seemingly healthy foreign exchange reserves and a rapidly declining incidence of absolute poverty. Two years later, the economy was in disarray. The exchange rate collapsed, following the decision to float the currency in July 1997, a humiliating IMF bailout package was agreed to, and confidence in the country's economic institutions, especially in the Bank of Thailand, was shattered. Both rich and poor Thais experienced genuine economic hardship. The very commentators who had been so impressed by the Thai experience now cited it as an example to be avoided. Something had gone really wrong in Thailand, but few if any of the professional observers saw it coming.

Thailand's crisis was the culmination of a long period of economic boom, unprecedented in its rate and duration. It is not possible to understand the crisis of 1996 and 1997 except in the context of the boom which preceded it. The crisis was the collapse of that boom. Foreign capital played a major role in providing the resources which fueled the boom, but it also produced a large real appreciation which undermined the competitive position of Thailand's export industries - their capacity to attract resources within the domestic economy in competition with non-traded goods sectors. Although the peg of the baht to the US dollar and the appreciation of the dollar relative to other currencies after 1995 contributed to the real appreciation, a significant real appreciation of the baht was evident well before 1995.

In addition, the longer the boom continued, the greater became the accumulated stock of short term portfolio investment and other forms of volatile capital. These developments had significant implications for Thailand's vulnerability to a financial crisis. The Bank of Thailand attempted to maintain a (nearly) fixed exchange rate relative to the US dollar. The conventional measure of reserve adequacy, the number of months of imports that reserves could finance, indicated no problem regarding reserve adequacy at the time of the crisis. But this indicator is conceptually of almost no relevance as an indicator of vulnerability to a financial crisis. What is much more relevant is (a) the stock of financial capital which could be presented to the central bank at short notice for conversion from domestic currency to foreign currency, relative to (b) the stock of foreign currency available to the central bank to finance these transactions, or foreign exchange reserves. Indicators based on this concept indicate a serious problem of vulnerability prior to the crisis.

What undermined confidence sufficiently to set a speculative attack on the baht in process was the collapse of export growth in 1996. This provoked capital outflow and speculation against the baht because it produced the expectation of a devaluation. The apparent export slowdown of 1996 was due primarily to the long term real appreciation of the baht resulting from the demand effects of foreign capital inflows, and a closely related phenomenon, a large increase in real wages.

With the end of the era of 'cheap labor', Thailand's labor intensive export industries face the prospect of declining competitiveness. Thailand's export industries are especially
vulnerable to increases in real wages for two basic reasons. First, many of Thailand's most successful export industries are highly labor intensive, implying that a given increase in real wages has large effects on their costs. Second, these export industries face highly competitive international markets for their products, where they must act as price-takers. This means that cost increases cannot be passed on in the form of increases in product prices, whereas producers for the domestic market may have greater scope for doing so.

The massive depreciation of the baht means a major re-orientation of domestic prices, with tradable goods prices (exportables and import substitutes) rising relative to nontradables, especially services and construction. The more rapidly resource allocation can adjust in response, the smaller will be the unemployment and consequent human suffering that will result. Resources will be released by the services and construction sectors and absorbed by exporters. The net consequences for the path of unemployment will depend in part on the flexibility of resource allocation. The question is to what extent resources can be moved efficiently from services sectors that are now laying off workers to the export industries that are now becoming so much more profitable. The less flexible is resource re-allocation, the greater will be the frictional unemployment. The flexibility of the Thai economy is now being tested.

Policy Recommendations

Restoration of confidence in the financial system is the greatest single policy imperative for Thailand. Reform of the banking system and continued adherence to the International Monetary Fund (IMF) package will be important components of that. In the presence of a deep recession in 1998 and possibly 1999, it may be politically tempting to retreat to a more protectionist trade policy. Avoidance of that course will be important for Thailand because it does not provide a viable option for restoration of long-term growth. Over the long term, improvement of the educational system must be a high priority. The government-run secondary education system has not served Thailand well. Options for increased private sector involvement should be explored.
Discussion

Discussant: Chalongphop Sussangkarn, TDRI

All proposals presented in the seminar today are important for Thailand's efforts to upgrade the efficiency of its macroeconomic management. In addition, attention should be directed to the following issues:

- **Efficiency of Investment Projects** is important, as the current economic crisis is due partly to low efficiency of investment, especially in certain areas considered redundant or unnecessary economically.

- **Development of Human Capital** still lags behind neighboring countries, especially in education and training. Investment in basic education is unsystematic and inefficient.

- **Development of Rules and Regulations** should be improved.

- Improvement in the Bureaucracy should be implemented urgently, especially to reduce rent-seeking activities.

Additionally, the following issues must be addressed.

**Can Thailand recover from the crisis?** The answer is yes. The timing of recovery, however, will depend on creating common understanding and cooperation among all members of society. It is vital that we seek together ideas on how to solve our current economic problems. Each party must be willing to sacrifice some of their own interests for the sake of the economy as a whole. The question is what level of sacrifice will be acceptable. The right balance has to be found between tight fiscal and monetary policies to maintain exchange rate stability and a looser fiscal and monetary stance to bring about recovery.

**What do we look for in an economic recovery?** The studies included here called for achieving economic recovery through stable economic expansion. It should be cautioned, however, that economic expansion without proper supervision will lead to overconsumption and speculation, putting the country at renewed risk.

**How can we nurture the economy more efficiently?** Trends suggest that economic expansion will continue to be export and investment driven. The problem is how to prevent over-investment in some sectors. We must increase the role of government in supervision and providing clear guidelines for private sector investment. Supervision, however, should not cause major distortions or undermine the efficiency of market mechanisms.

There is plenty of room for improvement in public investment projects. To increase efficiency, a cost-benefit analysis of public sector investments should be conducted.

As for macroeconomic management, in the past, reserves were used to protect the currency from speculation. Under the current floating regime, it is the duty of the Bank of Thailand to lay down a proper and comprehensive system for prudent management. As far as control of capital flows is concerned, Thailand will have to decide how liberal or restrictive policies should be, taking into account economic consequences.
We should have a clear vision for Thailand's economic recovery, looking beyond the year 2010 or 2020. Thailand's recovery should be seen in the context of ASEAN. Matters for discussion include where Thailand should stand among its ASEAN partners and neighbors like China, India, and Japan, how it can capitalize on competitive sectors such as the food and service industries, and how we can step up the technological ladder. Another interesting question is the role of Thailand and ASEAN in the world market over the next decade.

**Discussant: Teerana Bhongmakapat, Office of the Prime Minister**

In their studies, the consultants did not touch on issues of market access. International competitiveness will be greatly affected by the continuous process of increasing the accessibility of global markets in which multilateralism and regionalism play crucial interactive roles. Regarding international competitiveness, trade liberalization and foreign market access should be emphasized. Regional trading blocks, such as NAFTA, the EU, and ASEAN, partly divert trade. One factor that helps explain the Asian economic crisis is the formation of NAFTA, which may have led to distortions in trade with Asia, including Thailand. In 1996, Thailand's exports to the United States dropped from 11-12 percent to merely 6 percent on average, while exports from Mexico were on the rise. Exports from other Asian economies experienced the same trend. Although some economists explained worsening current account deficits in those countries as a result of the 1994 Chinese devaluation, other factors may also be crucial. More studies should be undertaken on this subject, as issues like these have strategic implications for Thailand's competitiveness policies as well as the world trading system.

It is essential to conduct additional research on the long-term effects of fiscal and monetary policies and macroeconomic management. Economists usually consider fiscal policy a short-term instrument, yet fiscal and monetary policies are also of great importance in shaping long-term economic prospects, and directly affect competitiveness and sustainable growth. Research on the long-term effects of fiscal and monetary policies will also help us better understand the meaning of sound macroeconomic policy and how the core macroeconomic regime, comprising fiscal, monetary and exchange rate policies, should be employed during the crisis. The following issues should be highlighted in this context:

Thailand faces a great need for financial reform and adoption of international standards in the financial sector. It is generally taken for granted that the best solution is for the IMF to facilitate adoption of a package of stringent reform policies, particularly by changing banking standards and resolving the balance of payments crisis. Such a package may move us in the right direction, but must also be elaborated in order to strategically contain the crisis. Policy responses may have to be addressed.

In addition to financial liberalization, what fiscal and monetary policies should be adopted? In practical terms, a proper mix of policies needs to be found. If austerity measures are adopted at the expense of growth, they might be self-defeating as output collapses. Based on international experience, expansionary fiscal policies and relaxed monetary policies could help ease the crisis. Whenever financial and currency crises arise, the practice usually resorted to is to devalue the currency in order to boost exports, and to introduce a floating exchange rate regime to better respond to excessive short-term capital movements. Prevailing evidence shows, however, that exports do not always increase in response. Many factors are involved, expanding the range of options and alternatives. Improved banking standards that are likely to decrease liquidity should be accompanied by a suitable monetary policy,
otherwise the liquidity crisis can create severe insolvency problems. Bank failures may as a result be systemic, leading to sky rocketing credit risk, even for promising exporters.

Regarding the optimal policy response to exchange rate movements, the collapse of Thailand's basket peg provides a classic lesson for a number of countries under both fixed and floating exchange rate systems. In fact, it is not clear whether policies aimed at promoting capital-account convertibility also promote long-term growth and competitiveness. At the moment, Thailand is not considering changing back and forth between policies of capital account liberalization and capital controls. However, optimal policies in managing the capital account have to be found so that capital mobility will be more beneficial than in the past. Any imperfection associated with international capital markets must be properly handled. It is crucial to realize that we are now living in a world of critical financial risk, though the returns are the same.

New economic models emerge as the situation changes. In times of crisis, remedial approaches tend to be governed by particular schools of thought. One should not resort to a policy of convenience but be aware of all the options available, and take into account the specific circumstances of the country in question. This may lead to a different conclusion regarding the optimal exchange rate regime for developed and developing economies. In the long run, policies for stabilizing the exchange rate and capital market corrections will have inevitably strong effects on the structure of production and national competitiveness.
Mr. Chairman,

Distinguished Participants,

Ladies and Gentlemen,

First, I would like to thank the Office of the National Economic and Social Development Board and the World Bank for organizing this forum, and the International Trade Promotion Fund and the Canadian International Development Agency (CIDA) for their financial support. It is a great pleasure to be here with such an impressive audience.

I deem it an honor and privilege to have been given this opportunity to present to this most distinguished gathering of international and local experts. I am delighted to tell you that there has been significant progress made and the Prime Minister is getting unprecedented support from the Thai people. Despite the tough responsibilities, I am quite happy and do enjoy every moment of the work.

Due to the time constraint, I will limit my presentation to three crucial and inter-related areas of concern, namely: financial sector reform, liquidity shortages and revitalization of the Thai economy. These are key issues which our adjustment program will feature.

Financial Sector

First, on the financial sector restructuring program, at the heart of our economic difficulty is how we can quickly return stability and confidence to our financial system. It is the government's firm intention to ultimately restructure the landscape of the Thai financial system. In doing so, the government is expeditiously undertaking five simultaneous courses of action. Since time is our enemy, these efforts must be parallel and concurrent.

The first track covers strengthening of the standards of the banking system. We set out stricter standards for loan classification, loan provisioning and income recognition. The new loan classification rules will take effect on the 1st of July 1998. Currently, the 3-month rule for non-performing loans has been announced and banks will apply the provisioning rules fully by the year 2000.
The second track involves strengthening the basic legal framework. Toward this end, the government is seriously undertaking an amendment of the Bankruptcy Act and various laws relating to foreclosures. In addition, a special court will be established to handle financial disputes. The whole process is expected to be completed by October of this year.

The third track is very important. At this moment, the real sector is suffering badly due to a sharp currency depreciation, tightened credit and a greater than expected drop in domestic demand. I believe that the financial sector has to support the real economy through corporate debt restructuring. The Ministry of Finance has already entrusted the Bank of Thailand to design so-called "exit procedures" based on non-performing loan standards once indebted companies are fully and adequately restructured. The procedures will be rationalized in conformity with the United States' OCC standards. Simply stated, indebted companies that have been restructured will be considered "normal" and will no longer suffer from a negative stigma.

The fourth track is bank recapitalization. Our strategy is to strengthen progressively the capital base of all remaining financial institutions through a combination of more restrictive loan loss provisioning and private sector-led recapitalization. Given the problem of tightened credit, the government is seeking funds abroad, approaching foreign strategic partners and conducting placement in the major markets. I am pleased to remind you that two of our large banks have just successfully completed share issues in major international equity markets. The total amount raised was US$ 2 billion. Additionally, two other smaller banks have developed strategic partnerships with well-known foreign banks.

Furthermore, on Monday, May 18 1998, the Bank of Thailand ordered seven ailing finance and securities companies to write down capital and to reduce their value per share to eliminate the losses of the companies. Additionally, the central bank has replaced the Board of Directors of these companies with officials from the Bank of Thailand and executives from Krung Thai Thanakit to oversee and manage these companies. Moreover, the authorities will continue to closely monitor the recapitalization plans of other financial institutions to ensure that each company has a stable position and sufficient capital funds. If there appears to be a company with a doubtful position that cannot recapitalize within a given time frame, the authorities will immediately intervene to swiftly solve the problem. This will strengthen Thailand's financial institution system and enhance its credibility with depositors and creditors, both local and foreign.

The last track concerns putting in place good governance by financial regulators and institutions. The re-engineering process of the Bank of Thailand will be led by a reputable group headed by a world-renown central banker. This challenging endeavor will also be fully supported by governors of major industrial central banks. To this effect, they will nominate high-level and competent experts to work closely with the Bank of Thailand counterpart for a period of four months starting the 1st of July 1998.

This group of experts will create recommendations, not just a report. On the 6th of May 1998, a new line-up of executive members of the Bank of Thailand were appointed. With the new governor, the group of wise men and the group of international experts, I can assure you that after the curtain of this restructuring of the Central Bank is drawn, the Bank of Thailand will look much different than in the past. It will enjoy greater independence and more transparency and accountability. This should be a safeguard against problems which have occurred in the past.
Liquidity

The second issue that I would like to briefly touch upon is the government's plan to tackle the current liquidity problem in our financial system. Apart from mobilizing funds from international organizations such as the World Bank and the Asian Development Bank (ADB) under the structural adjustment programs, we will also maximize funding from various bilateral sources such as Export-Import (EXIM) banks and the Overseas Economic Cooperation Fund (OECF). Last month, the Thai Export Import Bank received US$ 1 billion from 64 international commercial banks under an ADB co-financing scheme. We are channeling these funds to ensure that key sectors such as exports, agriculture and housing are adequately financed.

Recently, the Ministry of Finance has announced 15 measures in six areas to alleviate liquidity shortages. Apart from the measures to strengthen the financial sector mentioned above, we intend to:

- Issue a Thailand sovereign bond on international capital markets;
- Mitigate current risk-adverse behavior of commercial banks; and
- Reduce short-term distortions in the money market created by the Financial Institution Development Fund by raising more long-term funds to substitute for its short-term borrowing.

All of these measures should help improve liquidity conditions. We will cautiously see that interest rates soften gradually in the months ahead while maintaining a stable exchange rate market.

Revitalizing the Economy

Now, I come to the final point of my presentation, which is on revitalizing the private sector. The most important factor to support revitalization of the economy is market confidence in which we have seen an important turnaround in the last three months. With continued adjustment in the current account, an improved external debt structure, relatively low inflation and a more stable baht, we are starting to see positive inflows in the capital markets. This should enhance liquidity and act as an impetus to economic activities. We have received positive feedback from the Thai Bankers’ Association, the Thai Chamber of Commerce and the Federation of Industry. The Ministry of Finance will continue to take the lead to oversee this process and produce results.

While important progress has been made in the financial sector, conditions in the real economy are still deteriorating as the economic decline during the first half of 1998 is proving to be deeper than previously anticipated. The economy may shrink by about 5-6% this year. The immediate priority of the government is to minimize any further declines in economic activities and bring about a speedy recovery, while sustaining the stabilization gains. Thus, the focus of policies will shift to adapting macroeconomic settings through relaxing the monetary stance and allowing a larger public sector fiscal deficit, strengthening structural policies through efficient corporate debt restructuring and improved legal and institutional frameworks.

At the same time, we will not lose sight of the poor and will ensure the adequacy of the social safety net by allocating an additional 0.5 per cent of GDP in the 1998 budget for this purpose. The Cabinet has just approved a social project with the support from the World Bank for an amount of US$ 300 million to directly subsidize the poor and unemployed.
Mr. Chairman,

Distinguished Participants,

Ladies and Gentlemen,

Let me conclude by stating again that we have made significant progress in implementing the economic program and we are becoming much better placed compared to six months ago to overcome the remaining challenges, although the immediate period ahead will continue to be very difficult. And should new pressures arise, the government stands ready to take whatever additional measures necessary to ensure the success of the economic reform program. Thank you.
Thai Capital Markets: Challenges and Reforms

Introduction: The Impact of the Currency Crisis

The Asian financial crisis has come at a time when Thailand and other regional economies are progressing towards increased global financial market integration. The crisis has also exposed a number of weaknesses in both operational and oversight spheres within the financial systems in the region, particularly in Thailand. The need for developing and strengthening alternative forms of financial intermediation is underscored by the maturity and currency mis-match problems that banks and non-bank financial institutions (NBFIs) in Thailand and other economies have been afflicted with in recent years.

Alternative forms of intermediation have also been considerably weakened as a result of the decline in investor confidence in the creditworthiness of the entities that issue securities. As a reflection of this problem, the Thai Stock Exchange index (SET) came to its lowest point at the end of 1997 in the last eight years and the domestic bond market has also slowed down considerably. Even prior to the crisis, liquidity has been a problem with a very small fraction of the population participating in the stock market, and now after the crisis it is likely to be further affected by the problems faced in the NBFIs sector.

This presentation addresses issues regarding capital market reforms in Thailand, based on the recently approved ADB financial markets reform program loan and on the best practices for financial sector development as identified by the IMF and G-10 countries. With regard to the theme of this conference, strengthening capital market institutions has a direct impact on enhancing competitiveness through providing alternative forms of long-term financial intermediation in place of traditional channels of funding that have led to currency and maturity mis-match problems in the recent crisis.

Capital Markets in Thailand

While Thailand’s financial deepening and growth in market capitalization are comparable with those of other economies, its absolute levels of equity and bond market capitalization are still low. Further, market capitalization has declined significantly between 1995 and 1997, from US$ 141.5 billion (84 percent of GDP) to US$ 23.5 billion (24 percent of GDP) primarily due to reversed capital flows as the financial crisis deepened.

Financial Markets Reform Program

The ADB has recently approved a financial market reform program loan for Thailand in the amount of $300 million. The Program’s goal is to broaden, deepen and improve the efficiency of financial markets to enhance the economy’s resilience to external shocks and to mobilize long-term capital. Its objectives are to: (i) undertake immediate resolution of non-performing loans (NPLs) and rehabilitation of NBFIs; (ii) strengthen capital market regulation and supervision; (iii) improve risk management; (iv) facilitate access by investors and issuers to the domestic equity and bond markets; and (v) develop long-term institutional sources by promoting pension and provident funds.
Framework

The paper, on which this presentation is based, presents a comparative assessment of the development of financial markets in Thailand and in other comparable economies in the region. The structural (legal and regulatory systems, accounting and auditing principles and internal control and governance) and infrastructure (payment systems, credit rating services, and Human Resource Development (HRD) for risk management) environments are assessed in comparison with other economies in the context of the "Best Practices" identified in G-10 and IMF reports, and the relevant principles from the Basle Committee on effective banking supervision.

Policy Recommendations

Policy recommendations focus on the following, taking into consideration the progress already made in some areas:

• improving internal governance and controls within corporations - strengthening auditing, accounting and disclosure standards, holding directors responsible for internal conduct, promoting internal dissemination of information, eliminating insider trading;

• deepening bond markets - developing an appropriate benchmark yield curve, promoting the role of institutional investors, encouraging asset securitization;

• strengthening market infrastructure - payment settlement and clearing systems, Delivery versus Payment (DvP) and guaranteed settlement systems for risk-free transactions of securities, enhancing market surveillance to improve investor protection;

• promoting futures and derivatives markets and products.

In support of the above policy recommendations, a stylized list of reform has been developed. This list reflects sound practices as recommended by the APEC Finance and Central Deputies Meeting that was held in April 1998 in Washington, D.C., adapted to the case of Thailand.

1. Thailand should undertake wide-ranging structural reforms to deal with interconnected lending and corrupt practices that distort financial-real sector linkages. As a general policy, complete separation should be encouraged, in terms of ownership, between real and financial sector entities, and regulatory authorities should be provided with complete independence in pursuing any violations of this rule.

2. To make financial systems more effective, legal reforms are necessary to ensure certainty in corporate, commercial and financial transactions, and enforceability of collateral security laws. The legal framework followed in Thailand should also provide for adequate corporate governance and disclosure requirements, in addition to bankruptcy laws and alternative dispute resolution mechanisms including arbitration, and small claims and consumer tribunals.

3. Legal reforms must be complemented by measures to ensure efficient operation of the courts, including training of court personnel and the provision of adequate budgetary resources for timely resolution of disputes and effective enforcement of legislation, and contractual and property rights.

4. Thailand needs to adopt policies that ensure the accuracy and timeliness of corporate information. Sound accounting and auditing procedures based on standards of high and internationally acceptable quality need to be fully supported, and legal sanctions need to be developed to ensure that financial institutions truthfully state their financial position.

5. Thailand should move towards disclosure-based systems that rely on market discipline to determine the merits of securities offerings. The legal and regulatory system
should require full, accurate and timely disclosure of material information and should provide mechanisms for enforcing the disclosure requirements.

6. Thailand should take steps to promote good corporate governance through strengthening Company Law provisions on the responsibilities of the board of directors and management. Internal and external auditing should focus on strengthening risk assessment and safeguards against insider trading.

7. Thailand should promote DvP systems to ensure efficient and risk-free settlement of securities transactions.

8. A competitive financial sector is heavily dependent on having the necessary human resource capability, both in operational and oversight functions. Financial supervisory authorities and institutions should therefore place a high priority on building human capital through training programs to ensure that the operational as well as the oversight requirements in the sector can be effectively met.

9. Thailand should endeavor to promote the development of fair, orderly and efficient capital markets, governed by strict standards of operational safety and efficiency, in which securities can be bought and sold by domestic as well as foreign investors at fair transaction costs. Efficient clearance and settlement systems should be developed, with centralized securities depositories or registries and guaranteed settlement.

10. Thailand should encourage competition in the credit rating industry to facilitate financial sector development through the alleviation of information asymmetries.

11. Thai regulators should ensure that securities firms have strong internal controls and compliance procedures in place. Investor protection should be provided through effective surveillance systems established in stock exchanges, and through independent surveillance by regulators. To support regulation, Thailand can promote Self Regulatory Organizations, which should be subject to the oversight of the regulator and should observe the same standards of fairness and confidentiality as the regulator.

12. Thailand should expedite its efforts to develop market structures for medium- to long-term domestic currency bonds to deepen capital markets; such longer-term instruments will provide a viable alternative to short-term capital flows and minimize the currency and maturity mismatch problems experienced in the present crisis.

13. Thailand should introduce policies to promote the development of financial derivative markets so that business transactions involving foreign exchange and equity/bond investments can be effectively hedged to protect against adverse price fluctuations.

14. Asset securitization offers a number of benefits in the development of capital markets. Authorities should review the financial market environment to ensure that the necessary legal and regulatory framework, accounting and disclosure standards, and tax treatments are in place.
How The Thai Real Estate Boom Undid Financial Institutions:
What Should Be Done Now?

Three Questions on the Thai Real Estate Crisis

The efficiency of a country's cities is a critical component to its international competitiveness. Metropolitan centers are the dynamic interface between the national and the international economies for the flow of goods, services, and information. As an economy develops and deepens, the value and quality of financial, corporate, technical and infrastructure services as intermediate inputs in the production process keeps growing. As family businesses expand, traditional office work moves from shophouses to office towers. Large factories create a demand for industrial real estate. The demand for final services is highly income elastic and expands with household incomes: the housing stock diversifies and retail malls compete with traditional neighborhood shops. It is therefore not surprising to find that the decade 1986-1996 has seen the rapid emergence of a large modern real estate industry in Thailand, especially given Bangkok's ambition to be a leading center for the South East Asian region.

The Thai real estate industry that has emerged during the last decade, however, suffers from a number of structural weaknesses that must now be addressed in order to continue modernization and lower future volatility. International experience shows that the real estate industry is inherently cyclical, especially commercial real estate. Unfortunately, the amplitude of the Thai real estate boom that was originally built on sound fundamentals has been magnified and distorted by outdated banking practices and weak credit risk management in the financial sector. The financial sector in turn was also experiencing extremely rapid growth.

Currently, structural flaws in both sectors have been starkly revealed, and both sectors are under great stress. The real estate boom that peaked sometime in early 1995 is now followed by oversupply and a very severe asset deflation that parallel the deflation of financial assets on the stock market. Non-performing real estate loans, overvalued real estate collateral and business loans improperly deflected into real estate investments have contributed directly to banking failures in many countries. In Thailand, the real estate bust has lead to the failure of a majority of the finance companies and of a number of small and medium-size banks that typically serve second-tier business borrowers in Thailand, just as elsewhere. Reliance on foreign currency loans for a number of real estate operations added a dimension of foreign exchange risk that expanded toward the end of the boom with the creation of the Bangkok International Banking Facility (BIBF) facilities and the opening of the capital account. This dynamic, combined with monetary policy errors, has contributed to the currency crisis that has in turn intensified the pre-existing level of distress in the real estate sector.

The real estate sector cannot be ignored or neglected now. The value of assets in play is very large. The socio-economic implications of the crisis are widespread. Various

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4 This presentation is based on a paper by Bertrand Renaud, Stefan Koeberle and Ming Zhang, The World Bank.
types of real estate assets have become a significant part of Thai national wealth during the last decade. Yet an excessive amount of resources has been increasingly diverted into the sector over time by the financial system. Today, real estate activity has ground to a halt and asset recycling has yet to begin. Asking prices are unrealistic, there is no financing except for a very small fraction of the residential market, and there is no trading.

The painful, yet inevitable period of loss recognition has not yet begun. Now is also the time for the highly skilled financial, legal, engineering and planning specialists who might find themselves partly idled by the crisis to work together. They can at last create the public-private partnerships needed to fill the conspicuous information, regulatory and infrastructure gaps that have characterized the Bangkok Metropolitan Region for the last two decades. These gaps have a direct bearing on the costly excesses and imbalances now in evidence in Bangkok.

Thailand’s real estate experience is far from unique. A significant number of OECD countries have experienced serious episodes of asset inflation and volatile real estate cycles since the early 1980s. The US, the UK, Japan, France, Australia, and the Nordic Countries all experienced significant real estate crises, as did other Latin American countries and Chile in 1982. What the experience of these countries teaches us is that policies of avoidance of loss recognition will extend the length of the slump and in the process increase the carrying costs of bad assets. It is a commonly heard view in France that the real estate slump is finally over after more than six years -- and the subject matter is considered less sensitive. In Japan, the real estate sector has yet to recover since 1990.

Pro-active policies are needed in Thailand to correct the misallocation of capital and yet insure that liquidity returns to the real estate sector. The real estate slump should not be extended unnecessarily. There are three leading questions. In what segments of the real estate sector is the level of distress the most severe? What is required in Thailand to restore liquidity and value in the sector? What structural changes are required in the real estate sector and in the financial sector to prevent excess volatility and resource misallocation in the future -- i.e. what is needed to create a mature real estate industry?

Oversupply and Rapid Erosion of Asset Quality

In the aftermath of the currency crisis and the floating of the baht on July 2, 1997, the economic picture in all segments of the real estate sector has started to deteriorate sharply. The share of distressed assets in the commercial property market is now overwhelming. Supply that was already anticipated to exceed demand by a very large margin in early 1997 will continue to do so in spite of the cancellation of projects that were on the drawing board and of construction projects underway. All major sectors are affected: offices, housing, and retail.

Cutting The Cost of Carrying Bad Assets

Falling demand, declines in rents, increases in vacancy rates and rising interest rates can turn even good real estate assets into bad ones. A key lesson has been learned by the US during the Savings & Loans crisis, by the Nordic countries during their banking crisis, by French banking regulators in the failure of specialist real estate lenders, and by others in the UK and Australia. The central issue during the present Thai crisis is that the carrying cost of a bad asset becomes very quickly -- almost explosively -- greater than a recognition of the loss through the sale of the asset at its new fallen value. Painful as the decision may be it usually proves cheaper for the original owner to sell a bad real estate asset at a fraction of its original value than to carry it for two or three more years. Most likely in Bangkok today, the sale may take place below the current replacement cost. Potential buyers will come in under very different conditions. While the value of the property to heavily leveraged existing asset
holders has fallen sharply, new buyers will have far smaller and probably no expected cash flow losses. The rate of growth of losses is directly linked to the degree of leverage.

**Systemic Factors Interfering With Rapid Loss Recognition**

If it is so clearly in the self-interest of holders of bad assets to dispose of them to new investors, why don’t they do it quickly? There are a variety of practical reasons why this is not yet happening in Thailand, or at least on a meaningful scale. Meanwhile, rational (domestic as well as international) investors observing this self-defeating behavior will *only* buy when this behavior of holding onto bad assets stops. Why? Because the pressure to force even lower future prices does not stop until sales without assistance start. Four interdependent events are expected to play a major role in the return to liquidity in the Thai economy, and in the real estate sector in particular. They are the enactment of amendments to the bankruptcy law; effective and pragmatic foreclosure rules; the creation of property funds; and, market-based sales of real estate assets by the Financial Restructuring Authority (FRA).

**Actions Needed to Restore Liquidity in Real Estate Markets**

Presently, the Bangkok real estate market is in a state of suspended animation. Asking prices are out of line with market conditions and there is little or no trading taking place. Liquidity needs to be restored to the market to permit the various corporate or household asset holders to dispose of bad debts and restructure their balance sheets. A number of measures are being taken or need to be taken, including (i) a real estate task force, (ii) bankruptcy law amendments, (iii) foreclosure rules and mortgage enforcement, (iv) liberalization of rules for foreign property ownership, (v) overhaul of the capital gains tax, (vi) valuation and credit, (vii) expansion and allocation, (viii) expansion and allocation of mortgage loans during the liquidity crunch, (ix) mobilizing capital through property funds; and (ix) loss recognition and assets disposal through the FRA.

**Summary of Structural Improvements Proposed for the Thai Real Estate Sector**

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<thead>
<tr>
<th>Property Valuation</th>
<th>Space Market</th>
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<tr>
<td><em>Cash flow based real estate lending</em></td>
<td><em>Develop leasing market</em></td>
</tr>
<tr>
<td><em>Improve asset valuation</em></td>
<td><em>Better condominium law</em></td>
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<tr>
<td><em>Broaden access to capital market</em></td>
<td><em>Develop strata sales</em></td>
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<tr>
<td>-Property fund</td>
<td><em>Lower entry and exit cost of leasing</em></td>
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<tr>
<td>-Mortgage securitization</td>
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<td><em>Develop secondary housing market</em></td>
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<th>Real Estate Development</th>
<th>Stock Adjustment</th>
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<td><em>Improve urban planning</em></td>
<td><em>Property management services</em></td>
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<td><em>Real estate development code</em></td>
<td><em>Removal of obsolete stock</em></td>
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<td>Consumer protection</td>
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<td><em>Real estate intelligence</em></td>
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Structural Changes for a Mature Real Estate Industry

The requirements for developing a mature real estate industry in Thailand can be illustrated through an analytical framework noted for its ability to clarify the factors of two separate yet closely interrelated real estate markets—the space (property) market for the use of space, represented by the two right quadrants, and the asset (capital) market for the ownership of space, represented by the two left quadrants (see figure).

The following structural reforms need to be addressed to facilitate the emergence of a mature real estate industry:

- Develop balanced space markets with sustainable rental cash flows by (i) developing a leasing market; (ii) improving the condominium law; (iii) developing strata sales; and (iv) lowering the entry and exit cost of leasing.
- Improve investment decisions and asset market efficiency by (i) moving toward cash flow based real estate lending; (ii) improving asset valuation; broadening access to capital markets; developing a secondary housing market.
- Strengthen the real estate development process by (i) establishing a real estate intelligence force; (ii) improving urban planning; (iii) developing a real estate development code and (iv) improving consumer protection.
- Improve management and adjustment of real estate stock by (i) enhancing property management and (ii) removing obsolete stocks.

International experience has shown that these structural and regulatory improvements can shorten the recovery period and dampen the recurrence of sharp real estate cycles.

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The Importance of Financial Sector Reform

Reform, and especially recapitalization, of the financial sector are key for achieving sustained recovery. Here, Japan serves as a "negative" role model. Although far more developed than Thailand in terms of per capita GDP, Japan went through a similar period of over-investment that created an asset bubble in the late 1980s. Its weak financial sector was very much at the core of the problem. Throughout the 1990s, the Japanese Government has failed to address financial and related real estate problems. As a result, non-performing loans (NPLs) - although acknowledged - rose consistently, outstripping banks' capital and provisions. The NPL problem and inadequate capital stock paralyzed the banking system and led to a credit crunch despite record-low interest rates. The Japanese experience shows that if the financial sector lacks the capital to expand its balance sheets because of an unresolved NPL problem, then the economy will lack a multiplier that can turn stimulus in the form of low interest rates, fiscal stimulus, or export growth into a broad-based recovery.

How Big is the Recapitalization Need of the Thai Financial Sector?

The answer depends on realistic estimates of NPLs, recovery rates, financial institutions' original capital stock and provisions, and the size of the financial sector in terms of domestic credit as a percent of GDP. Following are market estimates of the above-mentioned factors:

- NPLs: 20-30% of total domestic credit
- Recovery rates: 30-40% of NPLs
- Capital & Provisions: 6-10% of total domestic credit
- Total domestic credit: 150% of GDP

Putting these estimates together suggests that the financial sector, including finance companies, has a recapitalization requirement of 20-30% of GDP if it is to return to a sound capital endowment consistent with Bank for International Settlement (BIS) guidelines. By comparison, Mexico’s recapitalization requirement after the 1995 crisis was 12-15% of GDP. It is important to realize that these estimates are only snapshots and that the NPL problem and recapitalization requirements will increase the slower reform proceeds.

Is There Enough Capital Available to Recapitalize the Thai Financial Sector?

Here, the answer is yes; there is sufficient capital both internally and externally, provided asset prices and investment risks are well balanced. The role of financial reform is to reduce investment risks in order to prevent a sharp drop in asset prices. The government’s reform efforts outlined by Khun Somchai Ruechuphan clearly point in the right direction. Indeed, there has already been some encouraging progress in standards for banking, supervision, and legal frameworks. The government’s focus on corporate debt restructuring as part of the financial reform process is also welcome. At the same time, Bertrand Renaud’s
presentation has shown that much remains to be done in the real estate sector, which is still
the largest debtor to the financial sector. There are many factors behind the lack of liquidity
and trading activity in the real estate sector including large outstanding legal uncertainties.
One factor that requires urgent attention, as highlighted by Bertrand Renaud, is the distortion
caused by the capital gains tax, which is really an excise tax on the assessment value, which
in turn tends to be well above current market values.

Khun Somchai’s recognition of the importance of foreign participation in the
recapitalization process is key. Success in attracting foreign funds will depend critically on
the transparency, consistency and comprehensiveness of the reform process. More
specifically, there should be no ambiguities regarding foreign entry rules. Here, the 10 year
limitation of the general 100% foreign ownership rule and the prohibition on foreign
ownership of landed property still create major uncertainties and obstacles for foreign
investors. The importance of removing the remaining obstacles to foreign investment is
highlighted by the fact that Thailand is not the only country in the region competing for
foreign funds to recapitalize the financial system. The reform process in Thailand is currently
ahead of that of Indonesia, Korea, and Malaysia, but this can change quickly.

The Importance of Developing Efficient Capital Markets

Ghon Rhee has highlighted the importance of developing efficient capital markets in
Thailand and has outlined a consistent action plan. Developing efficient capital markets is not
only in the interest of long-term financial stability but is also important in the current
adjustment period.

Securitization will be an important tool in turning non-performing assets into sellable
assets and restoring market liquidity. Bonds are also an important tool to facilitate the
Government's borrowing requirements. In turn, the issuance of government bonds will be
instrumental in developing a benchmark for corporate bonds. Moreover, government bonds
are an important low-risk asset that banks can buy to improve balance sheet health. Thus, the
Government's intentions to turn the Financial Institutions Development Fund's (FIDF) high
short-term borrowings into long-term bonds are good news.

The Importance of Liquidity

The discussion has highlighted the persistent tight liquidity conditions in Thailand.
Some feel that this requires an easing of monetary conditions. The question, however, is
whether restoring liquidity means printing more money or removing the obstacles that are
currently taking liquidity out of asset markets. The comparison of Japan and Australia, which
both went through similar over investment bubbles in the late 1980s, suggests that the
Australian approach – a transparent market adjustment guided by sound accounting,
prudential and legal standards – is better. Nevertheless, for banks to have enough incentive to
buy government bonds, the yield curve must be inverted, which should be feasible under the
current balance of payments surplus conditions.

Discussant: Sirichai Sakornrattanakul, IFCT

I would like to express my agreement with what the three presenters proposed on
financial restructuring. My main comments regard the issues raised by Marina Moretti’s
paper which addressed: (i) short-term policies for financial restructuring; and (ii) medium and long-term policies for financial restructuring.

In the short run, we must address problems relating to intervened financial institutions, as well as those remaining active in the market. Urgent measures are also needed for the four smaller commercial banks which are struggling to increase their capital and ease the liquidity crunch.

Amid the crisis, it would be very difficult for Thailand to maintain a one percent budget surplus as agreed to in the First Letter of Intent (LOI-1). After the government negotiated with the IMF, several austere conditions were removed, yet rigid conditions remain that may damage the country's liquidity. According to the Bank of Thailand, the monetary base and money supply (M1) shrunk by 3.3 and 4.4 percent respectively at the end of the first quarter, compared with the same period last year.

Marina Moretti presented a strong micro-level analysis on the structure of financial problems but did not touch upon their causes. The national economy will plunge further into recession if the government adheres strictly to the IMF conditions. There is no doubt that the country will attain economic stability due to the current account surplus during the first half of this year and lower inflation rates than expected, but the problem of tight liquidity remains unsolved.

One approach of solving the liquidity problem is to increase the velocity of money through the introduction of a more efficient payments system. At present, Thailand is following the Anglo-Saxon system employed in the United States and the United Kingdom, including a check clearing payments system. The problem with this system is that, unlike the fund transfer or giro systems adopted by countries in Europe, checks often remain uncashed during such a crisis. “Bad checks” then proliferate, and no one accepts checks as legal tender. Meanwhile, the government and banks want to hold cash for repaying foreign debts. To accelerate money velocity, the Bank of Thailand should shift from the inefficient and costly system of check payments to the giro system. In this regard, the Bank of Thailand has already devoted resources to setting up a computer system to facilitate a new payments system. However, this is a medium term measure.

The government is well aware of the liquidity problems we have been facing since we first accepted IMF conditions. Hopefully, in the Fourth Letter of Intent, the financial targets will be more relaxed so that we can better manage to survive this saga.

Another issue is interest rates. Term structure should be emphasized in tackling the debt problem. All parties concerned should realize that debt has become one of the most urgent on the agenda. Failing to help debtors will adversely affect the whole economy. There is a need at present to stimulate the economy by lowering interest rates and creating a general interest rate reference like a benchmark baht yield curve.

As far as credit extension is concerned, selective credit policies should be pursued. Controlled injections of capital through priority lending are needed, while debt restructuring could take place making use of "life boat teams" at banks and financial institutions, with a "life boat information center" or coordinating center at the Bank of Thailand (BOT).

Issues regarding restructuring the financial supervisory system can be divided into three areas. First, a piecemeal approach has been employed in enacting laws governing financial institutions, including the Bank of Thailand Act, the Finance Companies Act and the Commercial Bank Act. There is now a need to systematically reconsider these laws. Legal

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Acts will have to be amended and more up-to-date legislation enacted. Second, exclusive laws exist to supervise different types of financial institutions, such as commercial banks, securities companies, finance companies, and so on. Problems of fairness and simplicity usually arise. Finally, several government agencies share the responsibility for regulating financial institutions. Financial supervision thus becomes fragmented and highly complicated. A single supervisory unit will be essential to ensuring uniform practices for all parties.

In the medium term, specialized financing services for the export sector, SMEs, R&D, and the environment should be improved. To diversify ownership structures, community owned and cooperative banking should be encouraged. Also, the ethics of conducting business, especially in accounting and auditing, need to be enhanced.
SESSION 3. COMPETITIVENESS OF THE INDUSTRIAL SECTOR (I): TECHNOLOGY AND CORPORATE FINANCE

Presentations

Presenters: David Dollar and Mary Hallward-Driemeier, The World Bank

Short-Term and Long-Term Competitiveness Issues in Thai Industry

Background

To understand the causes of the initial slowdown in exports and to design policy responses to assist firms to cope with the crisis, the Ministry of Industry has conducted an Industrial Survey with the assistance of the World Bank\(^7\). The questionnaire gathered information from 1994, 1995, and 1996 to benchmark performance before the crisis, as well as responses to current conditions to analyze the impact of the crisis on firms operating in Thailand and the prospects of an export led recovery. This presentation is based on our report which studied 1,227 firms (employing over 350,000 workers) that completed the questionnaire in the last quarter of 1997 and first quarter of 1998.

Five sectors were selected based on their shares in exports and GDP: garments, textiles, electronics, food processing, and auto parts. More than half the firms export at least some of their output. Care was taken to include small and medium enterprises as they represent the bulk of firms and are most likely to struggle in the coming months. About one in three firms is either a joint venture or a wholly owned subsidiary of a foreign parent. In the sample, 84% of firms with foreign ties export versus half of local firms. Part of this difference is due to the fact that foreign firms tend to be larger, and larger firms are more likely to export. The average employment in a foreign exporting firm is 700 versus 347 for local exporters, and 185 for foreign non-exporters versus 83 for local non-exporters.

Main Findings

Initial analysis reveals seven main findings:

1. While export growth fell dramatically prior to the crisis, real productivity did not decline between 1994 and 1996. However, the financial position of these tradable goods industries deteriorated seriously. Net profit relative to capital and retained earnings dropped from 17% to 4%. The different trends in real productivity and financial profitability partly reflect the real appreciation of the exchange rate between 1994 and 1996. The real

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\(^7\) This presentation is based on results from an industrial survey conducted by the Office of Industrial Economics, Ministry of Industry, with cooperation of the IFCT and technical support from the World Bank (David Dollar, Mary Hallward-Driemeier, Giuseppe Iarossi, and Mita Chakraborty).
appreciation raised the cost of capital and labor. The tradable sectors had little room to raise prices (fixed exchange rate in an open economy), and hence profit margins were squeezed. Thus, macroeconomic mismanagement contributed to a short-term loss of competitiveness in productivity growth and trade performance and declining export growth in the pre-crisis period.

2. Most firms have experienced reductions in capacity utilization, and this began prior to the onset of the crisis. In the first half of 1997, capacity utilization dropped sharply for domestic firms. This reflects the ongoing real exchange rate appreciation and the fact that high rates of investment had led to a rise in capacity that was not matched with higher sales. In the second half of 1997 -- after the devaluation -- capacity utilization continued to fall. The devaluation has not led to a quick adjustment and restoration of production. A majority of firms in the survey were using fewer workers in the fourth quarter of 1997 than a year before. This trend is particularly sharp for domestic firms. Furthermore, domestic firms remain pessimistic about prospects for higher production. Even among exporters, capacity utilization was down by an average of 10% between end-1996 and end-1997; nearly 50% of exporters were using fewer workers at end-1997 than the year before. Among exporters, about one-third expect higher capacity utilization in 1998 and nearly the same number expect lower utilization.

3. The survey does not provide evidence of a crippling credit crunch. Many firms are lowering the amount of debt that they carry; debt-equity ratios fell about 18% from the end of 1996 to the time of the survey. However, this could be due to lower demand for credit due to higher interest rates and/or to lower demand for firms' products, rather than to a true credit crunch. When asked the principle difficulties that they face, the fall in domestic demand and the effect of the depreciation raising input costs far outranked the complaint of insufficient access to capital. For a true credit crunch, viable projects would be left unfunded. Yet, there are few cases where firms' credit is drastically reduced, even among those that rely solely on short-term bank loans. What is certainly striking is that there is a heavy reliance on short-term credit; the majority of firms only have liabilities that mature within a year.

4. The data show clear patterns in the differences in productivity across firms. The most striking distinction in the data is the 50% productivity advantage of foreign firms over domestic ones. That foreign firms get more output from their capital and labor than domestic firms presumably reflects their superior technology and management skills. Among domestic firms, high productivity is associated with formal training programs, licensing of foreign technology, and sub-contracting for other firms. It is also associated with firm size up to a point. These relationships need to be investigated in more detail, but the initial impression is interesting: successful application of better technology may depend on licensing, inter-firm linkages, training programs, and access to finance that enables firms to expand to optimal size.

5. In general, there is relatively little usage of government support programs, and these programs are not particularly targeted to high productivity firms. Among the high productivity domestic firms, only 8% are Board of Investment (BOI) promoted, 6% borrow from specialized banks, less than 3% get research funds, and 4% participate in the BOI BUILD program.

6. The key bottlenecks to productivity growth that firms themselves perceive vary to some extent by ownership and productivity level, though all complain about labor costs. This is surprising since the survey was done after the large devaluation, which reduced costs relative to other countries that had not devalued (though of course some of Thailand's key competitors have devalued as well). Beyond that, foreign firms complain about customs administration, red tape, and corruption. Domestic high productivity firms complain about
lack of technical workers, access to finance, and red tape. The low productivity domestic firms complain about finance and labor costs.

7. The productivity analysis is consistent with managers’ complaints about a shortage of skilled labor and the costs of labor more generally. The estimated marginal productivity of engineers is 16 times that of unskilled production workers, yet the wage differential is only five-fold. These labor market problems warrant further study.

Policy Recommendations

In light of these findings, we tentatively propose six recommendations for discussion and consideration:

1. The fact that firms in major export industries are operating at lower capacity and with fewer workers six to nine months after a major devaluation -- and have pessimistic expectations for 1998 -- is reason for serious concern. These findings raise the question of whether the government's fiscal and monetary stance has been too tight -- leading to a dangerously rapid decline in domestic absorption. The danger with too rapid adjustment is that there will be unnecessary layoffs and bankruptcies. The firms in the tradable sectors on which we are focusing should be expanding; that they are contracting raises real concerns about macroeconomic policy. A key issue in this kind of macroeconomic crisis is to restore basic confidence of investors -- both domestic and foreign -- in the economy. One reason to take a very firm macroeconomic stance is to allay fears that the crisis may lead to prolonged weak macroeconomic policies and persistent inflation. Once a particular macroeconomic program has been declared, it is particularly difficult to reformulate it without raising the specter of macroeconomic instability. It is here that some of our other findings about long-term structural problems may be important and useful. If the government moves ahead in some of these other structural areas, that will create room to ease up on the macroeconomic stance without endangering basic confidence in price and exchange rate stability.

2. The government should rethink its incentive programs for industry. It currently has a lot of disparate programs that are not very successful at reaching firms, particularly high productivity firms. The rethinking should include Board of Investment (BOI) promotional privileges, specialized finance, R&D programs, BUILD, and others. Worth considering is a move away from these specific interventions -- reaching only a few favored firms! -- to a smaller number of programs aimed at creating a good support environment for all of industry.

3. What are some of the important elements of a good support environment? First, the macro problems and the micro evidence together indicate that Thailand needs a better regulatory and supervisory framework for the financial services industry. On the one hand, poor supervision contributed to the macro problems. On the other, firms complain about the low quality of financial services. With only 40% of firms providing audited financial statements to qualify for bank loans, measures requiring greater transparency and disclosure of a firm's position would facilitate the allocation of credit and greatly improve the risk assessment involved with providing longer run financing.

4. Given the high productivity of engineers, the perceived shortage of technical workers, and concerns about labor costs, more in-depth investigation of the labor market should be undertaken. It is possible that labor market bottlenecks prevent the wages of engineers from rising to an appropriate level. This could be a problem in that the higher wages would help draw more candidates into this field of study. Clearly, the presence of engineers is associated with high productivity, and there is likely to be a role for public policy, either removing bottlenecks or subsidizing technical education.

5. There are good reasons in principle to subsidize firm training programs, and the survey data are consistent with a high return to such a program. In contrast, firms get almost
no public support in this key area. It should be relatively straight-forward to provide tax incentives for firm training programs.

6. The inter-related problems of customs administration, red tape in general, and corruption need to be addressed. Thailand has high reported corruption for its income level. Firms also report that Thailand has a high degree of regulatory discretion, a characteristic that is highly associated with corruption. In other words, regulations are relatively vague and leave a lot of discretion to bureaucrats. Corruption in the customs administration is a particularly severe problem for exporters and for high productivity firms, because they need imported machinery and inputs in order to participate in the international division of labor. Measures that can help address corruption are regulatory reform to reduce discretion of officials and civil service reform (usually fewer numbers of workers and higher pay).

Summary

In sum, we propose a two-pronged approach to help Thailand out of the current crisis and to lay a foundation for long-term competitiveness. On the one hand, there is much that the public sector could do to reform its support programs for industry and improve the general climate for production. The government needs to improve the regulatory framework for the markets for financial services, labor, technology, and inputs -- including imports. Its specific interventions have often not been effective, detracted from larger tasks, and created an environment conducive to rent-seeking. The crisis provides a good opportunity to address these issues. The second prong -- which depends to some extent on the successful implementation of the first -- is to ease up on the macroeconomic stance. If the government can improve investor and consumer confidence through a program of structural reforms, it would have more scope to stimulate the economy through fiscal and monetary measures.
Thailand's Corporate Financing and Governance Structures: Impacts on Firms' Competitiveness

The corporate finance structure in Thailand has not served the country as well as it could\(^8\). Small and medium-sized enterprises (SMEs) have little access to formal financing mechanisms and have suffered from a high cost of financing. In addition to a lack of creditworthiness, poor information and high administrative costs, this is due to the limited forms of collateral that can be used or pledged, the poor quality and diversity of financial services, and the limited skills of borrowers. Long-term funding from local sources for all firms has been minimal, in part due to the local market funding structure and a lack of institutional investors. This lack of local funding instruments has contributed to the overextended offshore borrowing and thereby to the financial crisis.

The level of economic growth in the past few years relative to the level of investment and the recent financial crisis have made clear that the allocation of savings in Thailand has been inefficient, particularly for the larger non-financial firms, and geared towards risky activities. Our contention is that poor firm governance, and associated related lending, together with other factors, including problems in the financial system, has led to uneconomic decisions and the assumption of large risks.

This presentation is based on a study by Pedro Alba, Simeon Djankov and myself that assesses empirically the relative importance of various policies and distortions affecting the corporate governance framework for non-financial firms. The structure of various forms of financing, the efficiency of investments, and the effectiveness of current corporate governance mechanisms are analyzed and compared with those in other countries. The study is based on data obtained from the Stock Exchange of Thailand (SET) as well as on interviews and reviews of the legal and regulatory framework. The empirical findings highlight the weaknesses in corporate governance and the risky corporate financing structures.

Based on these findings, the study develops various policy options to improve corporate governance, especially in larger firms, and corporate financing in Thailand, and thereby increase Thailand's competitiveness. In particular, it suggests policy improvements in the following six areas:

1. **Enhancing Enterprise Monitoring.** The role of commercial banks in enterprise monitoring and corporate governance will have to be enhanced through a comprehensive program of bank restructuring and institutional development. Banks, which in the short-run will dominate Thailand's financial sector, need to become more effective monitors of firms' management, in an ex-ante, interim and ex-post sense. At the same time, banks need to develop more arms-length relationships with firms. This will require stricter enforcement of insider and connected lending limits, violation of which has contributed to the recent financial crisis and poor intermediation. In those cases where banks and firms are effectively controlled by the same shareholders, increased transparency is required (which could take the

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\(^8\) This presentation is based on a paper by Stijn Claessens, Pedro Alba and Simeon Djankov, World Bank.
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form of increased disclosure or the requirement of a formal ownership relationship, such as through a holding company). Other financial institutions and agents involved in disciplining firms should be encouraged to enhance their role. For example, over time, bond investors can play an important role in disciplining managers, but this requires some changes in the commercial codes. Foreign investors’ role in corporate governance and corporate financing will benefit from the removal of some impediments in the legal framework, including in the Alien Business Law.

2. Improving Disclosure and Accounting Practices. The disclosure of information and accounting practices in Thailand should be improved. While disclosure and accounting rules are becoming increasingly consistent with international standards, the application of these rules appears to be hindered by the limited role of the self-regulatory agencies (SROs) in raising standards and practices and imposing sanctions on irregular behavior. A larger role for SROs, backed up by increased legal powers to discipline violators, may be needed. In addition, the market structure of the accounting industry, with limited participation by foreigners, may have been a hindrance to upgrading practices.

3. Better Enforcement of Corporate Governance Rules. The formal corporate governance framework in Thailand is not different from the standards used by developing countries at similar income levels. But, again, the practice and enforcement of the corporate governance rules are weak. Important changes in the capital markets as well as in the judicial system are needed such that minority shareholders’ rights are better protected in practice. The main lead for improvements will have to come from two institutions: SET and Security Exchange Commission (SEC). Extra tools to enforce regulations and discipline members may be needed to make these institutions more effective. In this context, it may be useful to review the process for the appointment of commissioners of the SEC and board members of the SET. Also, an enhanced role of SEC and SET in monitoring shareholders’ actions is necessary, as insider transactions have damaged Thailand’s capital markets reputation.

4. Facilitating Equity Institutions. As external financing needs are high, particularly for new equity, attracting new investors will be important. To facilitate the process of new equity infusions, it will be necessary to provide new investors with a more direct role in monitoring and disciplining managers. This will require a good minority shareholders representation on the board of directors, which in turn may imply ensuring broader application of the one-share one-vote principle and using cumulative voting for the appointment of directors. It may also be useful to introduce super majority voting rules for fundamental corporate decisions, such as acquisitions and major investments. Some market participants and analysts have even suggested that new equity infusions may require a more-than-proportional representation on the board of directors by new equity owners, at least initially until other investor protection mechanisms are strengthened. And improving corporate governance will require enhancing the role of institutional investors in Thailand in firm monitoring, which will have to start by improving the governance of these investors themselves.

5. Improving the Corporate Governance Framework. In the more medium-term, a number of improvements in the corporate governance framework are desirable. The proposal by SET for self-regulation on corporate governance of listed firms, i.e., to adopt standards regarding the roles, duties and responsibilities of the directors of listed companies to which firms can subscribe, could be made mandatory. More generally, Thailand could benefit from a broad public discussion on the topic of corporate governance, similar to what happened in the UK and other developed countries in recent years.9 In the end, the issue of corporate governance...

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9 For example, the Cadbury (1992) and Hamel (1998, UK) report, the Toronto Stock Exchange (Canada, 1994) report, the Peters report (Netherlands, 1997), the Corporate Governance Forum (Japan, 1997), the Statement on...
governance concerns the distribution of control in the economy over the real sector. A discussion of the preferred evolution of the real (industrial sector) should form the basis of the desired evolution of the corporate governance framework. The process of consultations used for the 1998 OECD report on corporate governance provides a good starting point on how this public discussion might be conducted.

6. Strengthening Institutions. In terms of institutional development, it is clear that data availability and analysis of corporate financing and corporate governance represent major weaknesses in Thailand. Not only is the data on corporates, especially on SMEs, incomplete and of poor quality, there are also institutional gaps, as the responsibility for monitoring firm performance and behavior is scattered. Follow up work should aim at systematizing data collection on firms and performing more and regular surveys. This should be a joint effort of private, semi-public and public organizations.

Corporate Governance (US, 1997), and similar efforts in a number of other countries.
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Discussion

Discussant: Chintay Shih, ITRI

Thailand and Southeast Asian countries have confronted a severe financial crisis since mid-1997, making this seminar particularly timely. Topics to be discussed center on issues of industrial competitiveness, the financial system, productivity, and so on. These discussions will provide Thailand with an opportunity to assess its strengths and weaknesses, and to address measures to revive the economy and enhance competitiveness. I am pleased to join you at this significant occasion. I am not an economist. My knowledge and experience of Thai Industry is very limited, and hence my observations and comments are biased by my own experience in Taiwan.

This session includes the paper by David Dollar et al., based on a competitiveness study and analysis of the financial structure of more than 1200 firms. The empirical findings indicate the existence of weak corporate governance and very risky financing structures at firms. The in-depth studies on the financial position of companies, including their leverage, reliance on short-term financing and the impact of the crisis, and declines in capacity utilization, provide valuable information for government in both policy making and strategy design. The following findings of David Dollar et al. are worth highlighting:

The Financial Structure of Firms. Companies exhibit a heavy reliance on short-term financing. The average bank debt-to-equity ratio is 150%, with almost all of the debt short-term. When comparing access to capital between industries in Thailand and Taiwan, Taiwan's top 1000 manufacturers have higher ratios of self-financing. These are usually greater than 50%, allowing firms to adopt a healthy financial position that helps them make quick adjustments during a financial crisis.

The Impact of the Crisis on Manufacturers. As the study indicates, financing is not regarded as a top priority. Longer-term development, particularly in an environment where firms are trying to expand, is a more important issue. The decline of domestic demand ranks as the number one issue to be addressed, followed by the effect of the depreciation on the price of imported goods. When investors lose their confidence in the market and reduce investment, the economy enters a cycle of contraction. Challenges facing government in reviving the economy include measures to boost investment in the private sector and to attract international investment.

Examining the Characteristics of High Productivity Firms. It is not surprising that firms with foreign investment show higher productivity. Well-designed management and a higher level of technology are some of the factors. Export-oriented industries such as electronics and garments have proved to be the sectors with the greatest potential. This provides one explanation for the advantages of Thai export processing industries.

The results of the survey shows that firms do not favorably adopt incentive programs provided by government. In response, government should re-evaluate its approach and consider issues such as adaptation, specialized finance, and R&D programs. Such strategies should be designed to meet the needs of different industries, to be easily accessible for firms, and to be implemented without red tape or inappropriate regulations.
For policy making and evaluation purposes, the government should develop a wide-ranging, comprehensive system of relevant quantitative indicators to monitor current economic trends and structural shifts pertaining to industry and technology. Our experience from the early 1980s was that Taiwan did not have the comprehensive data to do this. It was therefore difficult to understand the real problems facing industry. In response, government agencies began to develop various indicators on science and technology development, manpower, and industrial performance. The information was made available to policy makers, corporate managers, research directors and the general public. Over the years, the response has been very positive and evidence has shown that the information has helped to enhance industry's competitiveness. For instance, the government has implemented programs to promote industrial automation in Taiwan, and simultaneously developed performance indicators, conducting surveys to obtain quantitative information regarding manpower, R&D investment, automated equipment installation, the ratio of self-supply components and personnel with automation training.

To conclude, the survey conducted for today's seminar is very useful. Similar seminars should be held regularly to monitor progress.

Additionally, the government should take a systematic approach to establishing measurement indicators on manpower, industry structure, and performance and conduct international comparisons to evaluate effectiveness. The government should also study the factors shaping the performance and competitiveness of the Thai economy from the perspectives of technology and industry. In this regard, I would like to highlight the following additional aspects:

**Reducing Dependence on Low-Cost Production.** Thailand has realized the importance of establishing industries with higher technology intensity. Government should take a more active role in building the country's technology base. This could include promoting personnel training for production technology, improving product design in various industries and cultivating manpower trained in engineering. It may be useful to set up regional service centers with advanced equipment to demonstrate state-of-the-art technology and provide consultation services to industry. Government could also organize industrial service teams consisting of experts in technology, management and finance to visit individual firms and provide technical assistance.

For mid-term and long-term development, the shortage of capital could cause several impacts. As the government tightens its budget, the general tendency is to reduce investment in public education and research. Furthermore, there may even be cancellation or retardation of telecom, transport, and S&T infrastructure investments. With reduced access to capital by firms, the financial crisis may have potential effects on long term investments in improving industries' technological capabilities.

**Technology** is a major factor for boosting productivity and enhancing competitiveness. The government should take a series of measures to encourage technology diffusion in industry. Three types of government programs exist to upgrade industrial technology. First, programs can improve the adoption of specific technologies, including those emerging from public research institutions. Second, programs can provide technical assistance to upgrade production processes. A third type provides training support for workers in small and mid-sized companies to keep pace with technological change. ITRI’s experience has shown that it is important to establish a close cooperative relationship with industries, and to build bridges between academic research and industrial development efforts.

Taiwan so far has had the good fortune of being the country in the region least affected by the financial crisis. Some frequently mentioned factors contributed to this
situation. Taiwan has accumulated adequate foreign reserves and posts a current account surplus. Self financing by the private sector is adequate. Debt-equity ratios are low. While banks traditionally provided the main source of financing for firms, capital markets as a financing mechanism have evolved in Taiwan to the point that the stock market plays a very important role. In this wave of the Asian financial crisis, the economic structure of small and medium-sized enterprises has demonstrated great vitality. We conclude that the advantages of Taiwanese industries include a favorable environment for enterprises and the cluster-based industrial economy that supports industry. For instance, the electronics, computer, and semiconductor industries have established a dynamic industrial infrastructure. The education system in Taiwan improves the quality of human resources and has established high quality science and technology research capabilities. As the number of qualified personnel cultivated at home as well as recruited from abroad increase, industries upgrade to more high-tech products. Over the past decade, the manufacturing industry has become a high-tech industry. Capital and technology intensive industries contributed 74.2% of GDP in 1997. The electronics information industry has developed most rapidly. Its share in total industrial production has increased to 24.1%. Due to all these factors, Taiwan has suffered comparatively less in this crisis.

Discussant: Dong-Sung Cho, Seoul National University

David Dollar and Mary Hallward-Driemeier made a very thorough presentation of the research they conducted using an extensive database. I am particularly impressed by the coverage of some of the variables that enable us to understand which sectors of the Thai economy have experienced the greatest difficulties. This research will provide Thai policy makers with deep insights as they develop policy guidelines for solving the current economic crisis.

I would like to address four issues; the first two concern content, the third concerns the use of language, and the fourth addresses methodology.

First, the authors state in their "Conclusions and Recommendations" that the firms in the tradable sectors on which they were focusing should expand. Although I personally agree with the authors, I have to caution them from drawing conclusions beyond the realm of their research. The survey reported in the paper shows that trade-oriented firms were less affected, yet it does not show whether trade-oriented or domestic market-oriented firms are better suited to the Thai economy. We might challenge the wisdom of expanding tradable sectors instead of domestic, non-tradable sectors. The authors may be correct in arguing for the importance of the tradable sectors, yet the study reported here simply does not address this issue sufficiently or prove its validity.

Second, the authors stress the importance of education, and even propose "subsidizing technical education." I am in full agreement with their emphasis on education. In most European countries, industrial policy is almost synonymous with education.

Third, Section V deals with productivity growth and competitiveness, and treats the two concepts as almost identical. There are, however, many ways of defining competitiveness. Due to this multi-dimensionality, I suggest the word be dropped from the authors' article.

See Volume II for the full paper, including graphs.
Fourth, I have a concern regarding the use of certain research methodologies. I am somewhat uncomfortable with the authors' interpretation of the distribution of Thai firms according to their size, foreign affiliation, and export activities in a univariable mode. As has been recognized by the authors themselves, there is strong correlation among these variables. Therefore, some of the interpretations may have been misleading.

Figure 5, for example, describes the proportion of firms that have reduced their workforce. The authors describe that "about one-half of exporters are employing fewer workers, while two-thirds of non-exporters have reduced their workforce," and that "the share of large and small firms employing fewer workers is nearly identical." From this they interpret that "The capacity utilization data suggest that small firms are having a more difficult time, but apparently they are also more reluctant to let workers go." These statistics can be interpreted differently. Figure 6 also shows that local firms and foreign-affiliated firms show similar patterns in terms of workforce reduction. Based on these statistics, one can conclude that foreign-affiliated firms, which on average have a larger number of workers (622 vs. 193 at local firms), are better able to reduce their workforce than local firms, in spite of the fact that they have fewer reasons to cut workers. I am not suggesting that my interpretation is better or worse than that of the authors. I am simply arguing that the partial analysis of the effect of one variable without concurrent analyses of the others may result in arbitrary conclusions. In order to avoid such problems, I suggest the authors employ multiple regression analysis. Only then will the authors be able to interpret the net effect of each of the variables with rigor.

While I was reading the beautifully written paper by Pedro Alba, Stijn Claessens and Simeon Djankov, I could not help comparing the Thai situation with that of Korea since the end of 1997. During this period, the Korean economy has experienced a similar process of restructuring its corporate governance system. However, there are certain differences as well.

First of all, I am in full agreement with the authors of the paper that Thailand's lack of competitiveness stems in part from its poor system of corporate governance. The authors recommend creating a system to increase competitiveness. Korea's lack of competitiveness also stems in part from its poor system of corporate governance. This observation, however, does not convince high ranking officers in the Korean government that Korea also needs to establish a proper corporate governance system.

Let me start by posing a question: why has the Korean government not acted to improve corporate governance? Is it because policy makers were ignorant of the importance of healthy corporate governance? Probably not.

The Korean government has continued to exercise strong influence over the economy through direct and indirect policy guidelines during the past three decades. In particular, the government has followed a policy of choosing two to three industries as strategically important and encouraging the private sector to follow with massive investment in these industries. The government did more than simply encourage investment. It designatet a certain companies, mostly chaebol affiliated companies, and mandated Chief Executive Officers (CEOs) of the chaebol group, who are typically the largest shareholders, to comply with government plans. These leaders actively followed government guidelines in investing massively in these so-called strategic industries. On the other hand, government believes that minority shareholders will not make good partners. In the eyes of government, small shareholders have a myopic perspective and will not tolerate even the tiniest personal sacrifice.

11 See Volume I] for the full paper.
Why then would the government institute a corporate governance system that would invariably hamper the effectiveness of the CEOs, who are inevitably the largest shareholders, as a vehicle for implementing government policies? Essentially, I would like to point out that it was the Korean government that did not want to hear the voice of minority shareholders. Indeed, one may call it a conspiracy between the government and the owner-chairmen.

Now that we understand the attitude that the Korean government has toward, or more appropriately, against, the corporate governance system, we can see that corporate governance will not be instituted in Korea unless government policy makers do away with their traditional role of providing strong leadership in economic planning.

The Korean economy is likely to follow one of three scenarios depending on which direction government policy makers take:

1) Export promotion: targeting a trade surplus of $50 billion per year

2) Competitiveness in heavy industries: specialization of chaebols

3) Leadership in the electronic world: Move towards a knowledge-based society

Under the first alternative, the government would reinstate the export promotion policy of the 1960s-1970s. Chairman Elect Woo-Choong Kim of the Federation of Korean Industries recently argued the merits of this alternative, stating that the current foreign exchange crisis could be resolved if the government encouraged business sectors to aggressively export Korean products, resulting in a $50 billion trade surplus over the next two years. Exporters have the experience of promoting their goods abroad, and they would be willing to do so for the sake of the nation. In this case, chaebols would be given the right and responsibility to help save the nation. Accordingly, the government would have a moral obligation to support chaebols. Instead of superimposing a governance system, the government would do away with any anti-chaebol measures that limit the chaebol groups’ efforts to promote exports.

Under the second alternative, the government would direct each of the major chaebols in Korea to eliminate existing diversification strategies, to restructure their businesses, and to concentrate on one or two areas. In so doing, each chaebol would develop a competitive advantage in one of such industries as steel, shipbuilding, machinery, electronics, semiconductors, or chemicals where the Korean economy has committed substantial investment. The government would need to introduce an American-style governance system to check unscrupulous investment plans by the chaebol management.

Under the third alternative, the government would create a vision for the 21st century, one which will undoubtedly be dominated by knowledge and information-based industries. Consultants, scholars, and journalists argue that the current portfolio of industries in the Korean economy is skewed toward capital-intensive industries, in which global excess capacity and cut-throat competition exist. The only way for Korea to leapfrog into the league of advanced nations is, as they argue, to enter the information technology and telecommunication industries as quickly as possible. If the government chooses this alternative, it should not be consumed by instituting a corporate governance system. Instead, the government should educate people and induce the business sectors to enter future-oriented industries.

Only after the national leader chooses one of the three alternatives mentioned above will government policy adequately address the chaebol issue. Depending on which vision the national leader chooses, the government will determine whether to introduce a corporate governance system.

I am sure that the Korean case is vastly different from that of Thailand. Nevertheless, there must also be valid reasons why the Thai government is not enthusiastic about adopting
an adequate corporate governance system. Only when one knows the real causes of the situation in Thailand can one develop a systematic approach to establishing a solid system of corporate governance.

Discussant: Akira Goto, Hitotubashi University

My comments are divided into two parts. First, to find the way to a dynamic recovery of the Thai economy, the main theme of this conference, we should understand the causes of the crisis. I know that the causes are largely tied to macroeconomic factors and that this session is concerned with microeconomic issues. Nevertheless, I would like to touch upon the macroeconomic aspects of the crisis because these provide the framework for considering the way to recovery. Second, after considering macroeconomic factors, I will discuss microeconomic issues.

Many papers have been written since the onset of the economic crisis in East Asia. These papers and macroeconomic statistics tell us that the cause is essentially the creation of a bubble economy, rather than a currency crisis in the classic sense. The bubble became inflated because of the inflow of short-term capital, and investment in risky projects. Macroeconomic policies could not adequately deal with these problems. Monetary policy was ineffective under the regime of fixed exchange rates and free international flows of capital, as the Mundell-Fleming model tells us. Fiscal policy was also not effectively exercised because there was no government budget deficit. Demand for fiscal spending was large because government investment in infrastructure was needed to sustain rapid economic growth.

I would like to consider whether the cause of the crisis is related, at least to a certain extent, to real sector problems.

Paul Krugman warned that rapid economic growth in East Asia was simply due to the increase in inputs and that these economies would soon reach the stage of diminishing marginal returns.” Krugman’s scenario, however, predicts a gradual slowdown and not a sudden crisis. Second, growth accounting is not a dependable or stable methodology. Third, if there was no productivity growth, marginal productivity of capital and real interest rates should have fallen sharply and foreign investment should have ceased.

In Thailand, the effectiveness of investment seems to have declined in the first half of the 1990s, although it still remains at a rather high level. This may indicate that investment was made into less productive areas, or it may reflect decreasing productivity. At the same time, the ratio of foreign investment decreased somewhat in the first half of the 1990s. This may reflect that foreign investors are less susceptible to the bubble mentality, or that they believed production in Thailand was becoming less profitable compared to other countries. It seems, then, that the real sector was not the cause of the crisis, though there are signs that the real sector had problems that may have helped catalyze the crisis.

We should continuously promote efficiency of the real sector. In this regard, research at the firm level is useful. The two papers presented at this session do just that. The issues that both papers raise are extremely important. I found them well researched, informative and insightful.

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David Dollar and Mary Hallward-Driemeier show that export oriented, foreign affiliated firms demonstrated higher performance. Pedro Alba, Stijn Claessens and Simeon Djankov demonstrate that strong corporate governance is important for the efficiency of firms.

From these findings, three factors are important for promoting efficiency. First, competition should be promoted in the domestic market. Given that exporting firms are already exposed to intense competition in the world market and thus show better performance, competition in the domestic market should increase efficiency of firms oriented towards the domestic market. To increase domestic competition, competition policy is important, though not sufficient in and of itself. We should promote dynamic competition through entry of new firms. Empirical research shows that new firms bring novel ways of doing business to industries, and thereby promote efficiency in the industry as a whole. It is important to set this dynamic process in motion. In this regard, the entrepreneurial base of the economy should be strengthened.

Second, better performance of foreign affiliated firms may be related to superior technology and/or better management. Accordingly, it is important to provide incentives for firms to upgrade their technology and management skills. Again, competition itself provides an incentive mechanism as it rewards efficient firms and punishes inefficient ones. Continuous efforts by firms to build capability should be encouraged as the basis of learning. These efforts should not be reduced during the crisis as it takes time to build capability and continuous efforts are extremely important. Government can provide financial incentives to encourage these efforts. David Dollar et al. show that such government programs exist, but are not very effective. This does not mean government programs should be abolished. On the contrary, this is an area where government can play an important role, as illustrated by the book "National Innovation Systems" edited by Richard Nelson. Many governments are providing various forms of assistance such as tax breaks for R&D spending and employee training programs, establishment of public research institutions to help industry, and so forth. Each country should find the policy that works best in the context of its economy.

Third, as Stijn Claessens et al. show, corporate governance that checks inefficient management is crucial. Better performance of foreign affiliated firms may be explained in part by careful monitoring by foreign parent firms. I agree with Stijn Claessens et al. that banks should become more effective monitors of firms' management. In addition, banks should be monitored carefully by government. Some economists praised the Japanese main bank system. After the burst of the bubble in Japan, however, we have learned that banks themselves made many bad loans unchecked by supervisory systems. Monitoring by the Bank of Japan and the Ministry of Finance was lax and ineffective. It is necessary to monitor banks carefully. Funds should be made available, however, to entrepreneurs who are by definition risk takers. "Patient capital" should be provided to firms that make long term investments. Financial and corporate governance reform should be carefully designed so that it does not discourage the entrepreneurial spirit, which is after all the ultimate source of growth.

Discussant: Tawee Butsuntorn, Federation of Thai Industries

Allow me to start by highlighting several significant findings. First, the decline of exports took place prior to the on-coming of the financial crisis. The use of inappropriate macroeconomic policies led to both the drop in the country's competitiveness and a further
decrease in exports. Second, the study by David Dollar et al. also shows that poor capacity utilization was evident prior to the crisis. Third, the decline in demand as well as the depreciation of the baht and the rise in interest rates have increased the cost of production. Thai industry has lost ground in competitiveness in the wake of the rush to free globalized trade and adopt WTO principles. Finally, the study by David Dollar et al. indicates that productivity of foreign enterprises and Thai-foreign joint-ventures is rated 70% higher than that of solely Thai owned firms. I would like to present several views regarding Thailand's industrial production.

First, it is well known that the past 30 years of industrial development in Thailand have transformed the country's industrial structure from one of dependence on its resource base to one of labor intensive production. Presently, up to 43% of Thailand's industrial exports are derived from skill-intensive, high technology and mechanical industries, reflecting a sharp increase in the contribution of technology in the process of production.

Second, modern technology enjoys widespread use in the country due primarily to foreign direct investment, including capital technology management and marketing. However, the development of Thailand's own sources of technology remains negligible. Technology acquisition is based principally on two sources, licensing agreements and imports of machinery and equipment. The major obstacles in importing, developing and utilizing technology in Thailand are regarded as shortages of engineers, scientists, technicians and skilled labor. Thailand should encourage cooperation and the adaptation of technology in its research and development program, as well as product design and innovation. It should be noted that Thailand's technology growth capacity still relies largely on the adaptive application of technology rather than creating new technology.

In the recent financial crisis and economic slowdown, Thailand faces two major pressures.

The first is from developed countries that are able to upgrade to more sophisticated levels of technology, resulting in substantial improvements and diversification of products that give them considerable advantages in improving their competitive edge in the world market. Thailand may also lose its competitive edge in exports of its resource-based industries that enjoyed considerable comparative advantage in the past.

The second pressure arises from underdeveloped or developing countries whose relative labor costs are much lower, providing strong competition for Thai industry. Driven by these two pressures, the only solution for Thailand is to climb up 'on the ladder of technology' to produce new, higher quality and higher value-added exports. Thai industries in effect must place greater emphasis on value competitiveness to succeed. The overall industrial structure should be realigned to make way for improvements in product quality, firm management, technology, marketing, and product design capability in order to meet international product standards.

In preparing the country for globalization of trade under the auspices of the World Trade Organization (WTO), Thailand must adopt systems of international product standards and quality assurance, including ISO, in order to regain a good share of regional and world markets and to benefit from globalized trade. Thailand must improve its manufactured product exports so that it can adequately accommodate the requirements of importing countries. It should align its rules and regulations to match those of the international free trade regime. Steps taken so far by the government and private sectors in this formidable task have not been promising.

The environment in Thailand can be characterized by poor coordination and teamwork, lack of continuity, lack of vision and determination as well as inadequate understanding and support from the public at large. Thailand must be well prepared to enable
its industrial output to compete adequately with imports as well as to withstand the increasing strength of competition for its exports in the world market. The ground for competition is based essentially on the improvement of product processes and management efficiency, cost efficiency and a greater degree of consumer satisfaction derived from improvements in quality and standards.

On behalf of the Federation of Thai Industries, I would like to suggest six solutions to these challenges:

1) **Small and Medium-sized Enterprises.** Efforts should be focused on providing necessary assistance and support to small and medium-sized enterprises (SMEs) for improving their competitiveness, especially for modernizing machinery, as well as in relocating upcountry to tap cheaper labor. Infrastructure facilities, supply of long-term capital and concessionary loans are some of the means with which the government can help motivate SMEs to improve operations and gain cost advantages.

2) **Improving Skills and the Quality of the Workforce.** A quality workforce will be a key element underpinning the competitiveness of Thai industry. The structure of the Thai industrial workforce has rapidly changed. Many formerly labor intensive industries now rely increasingly on skill-intensive or knowledge-intensive production. The country’s short supply of engineers, scientists, technicians and skilled workers has become one of the most important bottlenecks to increasing Thailand’s competitiveness.

3) **Basic Infrastructure.** With accelerated industrialization in the past decade, infrastructure development has failed to catch up with demand, resulting in an infrastructure deficit for Thailand. If the competitiveness of the country is to be improved, developing infrastructure and public utilities responsive to industrial demand must be considered by the government. Additionally, the government should continue efforts to improve efficiency through privatization and de-centralization. The success of such efforts will depend on the effective pooling of both government and private sector resources for infrastructure development.

4) **Administrative and Managerial Improvement.** SMEs make up almost 50% of industrial output in Thailand. They are faced with the lack of professional administrative and management systems to bring their efficiency up to world standards. Their management practices should be adjusted to make the price and quality of their products more competitive. SMEs also need to raise their production to international standards by adopting total quality management and better environmental management.

5) **Research and Development.** Both the public and private sectors in Thailand can be characterized by weak research and development. In the public sector, limited funds are the major constraint. The position may worsen when budget cuts are introduced under fiscal austerity. Earnings in the private sector, on the other hand, are not sufficiently reinvested into research and development of new and innovative products. The sector also lacks a long-term plan for building a research and development program.

6) **Corporate Finance.** At present, producers and exporters continue to face liquidity problems and high interest rates. Export abilities have improved but producers still lack sufficient cash flow for the purchase of raw materials because banks consider these producers and exporters as high credit risks. Commercial banks in Thailand should evaluate credit risks based on the cash flow status of a borrower rather than their collateral position, to help create liquidity for firms to import raw materials. Negotiated restructuring of debts by debtors and financial institutions should help encourage debtors to cooperate with financial institutions in solving their problems.
Finally, on the 7th of May, the Federation of Thai Industries met with the Ministry of Finance to discuss how to restructure corporate debt. Many possibilities exist, including rescheduling debt payments, perhaps with a grace period, lowering the interest rate or increasing working capital to help businesses sustain themselves. The government should also change some regulations to allow for classifications of debtors, reserve funds and assessment of collateral values in order to facilitate debt restructuring. Yesterday afternoon, the Bank of Thailand asked the Federation of Thai Industries and members of the Thai Bankers’ Association to examine details of what the Minister of Finance calls “Non-performing loan (NPL) Procedures.” I expect that we will soon have new regulations for NPLs that will help Thai industry as a whole.
Thailand's Manufacturing Competitiveness

After a long period of high sustained growth of manufactured exports, Thailand suffered a sudden slowdown in 1996, with labor-intensive exports declining significantly. While this has been seen as a manifestation of declining long-term competitiveness, it is not clear that this is so. World trade slowed dramatically in 1996, and major competitors in the region all suffered falls in export growth similar to – though not generally as drastic as – Thailand. The evidence suggests that cyclical rather than structural factors were responsible for the Thai performance. These factors continued to affect exports in 1997.

In terms of the technological structure of exports, Thailand had much higher shares of resource-based and labor-intensive products in 1980 than the world as a whole. However, it was far below the average in scale-intensive and science-based products, with roughly the same share of differentiated products. By 1995, its share of resource-based products was much lower than the world average, but its labor-intensive exports, while declining, were still about double the average. Thailand also lags behind the mature Tigers and Malaysia in complex and high-tech products. However, its export structure is considerably more 'advanced' than that of Indonesia or China, which are highly reliant on labor-intensive products. Thai manufactured exports are relatively well positioned in terms of market shares in dynamic traded products. Nearly 55% of its manufactured exports are 'rising stars' – products in which Thailand is gaining market share and exports of which are growing faster than world trade as a whole.

Despite the role of exogenous events in the recent export decline and these apparent structural strengths, Thailand does suffer from long-term structural weaknesses. For instance, much of Thai 'high-technology' export production comprises relatively simple assembly activity, no more advanced than that of China or Indonesia. Malaysia is more developed in local content and design activity. Inflows of foreign direct investment (FDI), the main driver of complex export activity, lag behind neighboring competitors like Malaysia, Indonesia, Singapore and, most prominently, China. The bulk of FDI in Thailand is attracted by low wages rather than by skill levels; skill shortages, followed by red tape, are seen as the greatest deterrent by foreign investors. Enrollment data show that Thailand lags well behind the mature NIEs in educational quantity, though its performance is not very different from that of Malaysia or Indonesia. The government projects serious shortages of high level manpower for the near future. The quality of Thai education suffers from serious deficiencies, while training given to employees is patchy and concentrated among the larger firms.
In terms of technological effort, Thai firms have generally mastered production technology effectively. However, this has not led to a corresponding deepening of capabilities into research, design and technology development. Such deepening is an increasingly important part of the industrial development process as the sector diversifies and more complex technologies are imported and used. It is particularly important for export-oriented activities that need to constantly upgrade their processes and products, reduce costs and improve quality. Moreover, deeper local technological capabilities are essential for reducing the costs of importing and absorbing new technologies, and for adapting them to local conditions and inputs.

In Thailand, research and development (R&D) by the industrial sector remains minuscule by international standards, and technology support institutions are weak and under-utilized. There are few linkages between the productive and research sectors. Multinational companies' (MNC) affiliates invest little in R&D, in contrast to Singapore and Malaysia where they are deepening their technological structures and setting up design facilities. While some Thai enterprises are relatively strong and aggressive in exporting and investing overseas, their focus remains labor and resource based activities and their technology strategies remain geared to passively importing foreign know-how. This strategy has worked well until now, but will increasingly become a constraint to future upgrading. Labor- and resource-intensive activities can remain competitive at rising wages only if they are accompanied by sufficiently growing inputs of skill, design and research, which was not the case for Thailand in the recent past.

There are thus serious structural issues of export competitiveness confronting Thailand. More detailed research is needed to clarify what these issues are for individual sub-sectors. The generic problems are however clear: a weak and lagging skill base, a technological structure dominated by simple activities and capabilities, and inadequate institutions to support the upgrading of human and technological capital. In addition, there are problems with physical infrastructure and the financial system, in addition to the stresses on the banking sector caused by the recent crisis, but this paper could not investigate those. The government's reaction to these growing structural problems appears to have been tepid and unsystematic. While it acknowledges many of these problems, it has not mounted a coherent strategic response.

**Policy Recommendations**

Based on the assumption that the macroeconomic situation will be stabilized and the crisis overcome, policy recommendations to improve structural competitiveness are as follows:

- Mount a comprehensive survey of Thailand's structural competitiveness problems and policy needs, tracking market shares for major exports vis-à-vis major competitors and benchmarking relative technology levels, FDI flows, skills and institutional support.

- Set up a Competitiveness Strategy Unit, reporting to the highest levels of government, to formulate a coherent and coordinated response to the structural problems of competitiveness. This Unit should reach across conventional ministerial and departmental divisions and involve the private sector in the policy-making and implementation process.

- Devise and implement a human resources development strategy that can provide more and better quality manpower appropriate to the needs of complex manufacturing activities. This should encompass school education, vocational training, tertiary technical education, employee training and specialized industrial training, including on-the-job-training over the entire working life. Educational resources should be targeted at the most pressing skill needs, present and emerging. **Firm-level** training should be monitored and
encouraged, and industrial training should have close involvement of private enterprises, with increasing funding coming from the courses offered.

- Raise technological levels in manufacturing by stimulating enterprise R&D, productivity enhancement, and closer linkages with technology institutions and universities. The technology institutions should be structured to raise their incentives and capabilities to provide relevant support services to industry, in particular to small and medium enterprises; lessons should be drawn from similar reform efforts in various other developing countries.

- Undertake a Technology Foresight Exercise of the type launched in many OECD and newly industrialized countries to establish the technological needs of and priorities for Thai industry. Such an exercise, modified to Thai conditions, would involve interaction between industry, researchers, academics and officials to determine technological strengths and weaknesses in the economy and thereby establish priorities for action both in the public and private sectors. It will also help raise awareness of technological problems and involve the relevant actors in the strategy making process.

- Examine the needs of technology finance in enterprises, not just for high-tech start-ups (which are likely to be limited) but also for supporting modernization, design, training and contract research.
**Presenter: Frauke Kraas, University of Bonn**

**Industrial Structure and Spatial Strategies for Industrial Competitiveness in Thailand**

**Introductory Remarks**

In Thailand's current phase of economic crisis, short term measures are required to speed development and recovery. Further consolidation should be accomplished in the macroeconomic sphere, particularly financial, fiscal and educational management. The following policy recommendations focus on a middle and long term structural and spatial reorganization for creating sustainable competitiveness in Thailand.

This presentation is based on a study using five research reports:

1. A comprehensive analysis of factory data from the Ministry of Industry (MOI) from 49,700 firms in 1994-95 and 70,149 firms in 1996, excluding rice mills. The MOI data were processed by the Geographic Information System ("Industrial GIS Thailand") and were drawn from the period 1994-98. They include Thai infrastructure as well as socio-economic and industrial data. Detailed maps and statistics of the whole country comprise about 2.2 mil. data. MOI was a partner for this study, while financing came from the German Investment and Development Company (DEG), and the German Ministry of Economic Development and Cooperation (BMZ).

2. A study on Thailand's industrial decentralization conducted in 1995-96, and updated in 1997 by MOI, DEG, and BMZ.


4. The situation and problems of the Industrial Estates of Thailand were reviewed by the Industrial Estate Authority of Thailand (IEAT), DEG, and BMZ in 1995-96.

5. 17 months of comparative field work on economic potentials and deficits in nearly all *changwats*¹³ of Thailand between 1991 and 1998, by DEG, BMZ, and the German Research Foundation.

The following policy recommendations focus on three means to strengthen Thailand's international competitiveness:

- Further improve and profile Thailand's industrial structure
- Re-orient spatial strategies and instruments
- Establish an Industrial Information Center providing planning data for all governmental, administrative and private requirements and efforts

Several issues should be considered as part of a broader strategy for industrial development that involves planning, coordination, and especially strong attention to implementation. Thailand needs to adopt a policy mix involving monetary and fiscal policies

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¹³ "Changwat" is the Thai word for province.
as well as structural, spatial and trade policies. Thailand requires strong profiles and visions as well as clear hierarchical structures designating people responsible for the process of planning, supervising and implementing industrial reconstruction and reorganization.

Policy Recommendations

(a) Industrial Structure

Thailand’s industrial structure is highly unbalanced, both in the regional context and in its size profile. Thailand’s further industrialization should rely on four strategies:

1. Concentration on Growth Industries and Productivity. In order to shape its own industrial profile, distinct growth industries in which Thailand possesses a competitive potential should be defined and supported. According to the questionnaires, these should include agro industry, electronics, the petrochemical industry, medical technology, environmental technologies, communication technology and the jewelry industry.

The majority of the firms (57% of the questionnaires) - even those in growth industries - reported only satisfactory to low overall productivity. This was partly due to reduced capacity utilization since late 1996, but also due to insufficient skills and labor turnover. Foreign companies tend to be less affected, due to better expert networks, higher managerial skills, sufficient supervisors and higher levels of technology. Even most of the firms belonging to growth industries reported smaller labor forces after mid-1997.

2. Creation of a Medium-size Enterprise Policy. While favoring large companies, Thailand’s industrial structure is still shallow, with few local subcontracting and supporting industries, especially for growth industries. Therefore, a special policy supporting and strengthening medium-size enterprises should be established. Medium-size enterprises are especially engaged in supra-regional markets as manufacturers of finished products or suppliers for large enterprises, and usually create an above average number of innovations.

3. Improvement of Technological Standards. The country urgently needs to strengthen its technological capability in industry. Thailand is weak in searching for, acquiring and adapting foreign technology. Most firms are even weaker in developing their own technology. Local research and development (R&D) efforts, though they have improved in recent years, are still comparably minimal.

Firms will not focus on improving their technological performance unless there is stronger competitive pressure, the most important incentive in the production environment. Without this, efforts focused on developing technological infrastructure are not sufficient. Although ultimately the capabilities of the private sector depend on its own efforts to improve, government policies are also required. The following recommendations should be considered in this context:

- Government policy should create a general economic environment that stimulates firms to improve their performance and rewards them for such improvements, including reasonable exchange and interest rates, low inflation, good growth prospects and a stable macroeconomic environment.

- Government needs to ensure reasonably free access to inputs at international prices and a competitive market environment. Industrial regulatory policy at present affects entry and exit in a way that weakens competitive pressure. Fiscal and financial incentives favor privileged projects unsystematically.

- Government policy should formulate overall policy planning for science and technology (S&T). At present government programs are rarely requested and do not meet the requirements for companies with high productivity. Government should promote policies
and institutions that directly support the development of technological capability, establish specific policies and institutions for the acquisition, assimilation, diffusion, and further upgrading of technology and qualified manpower. This can be achieved by: a) tax incentives (these are mainly significant for those firms that are already profitable, not for start-up firms), b) financial incentives (grant funds and low interest loans should cover R&D directly as well as engineering, importing, adaptation and commercialization of new technologies), c) encouragement of cooperative research efforts through research institutes and industry associations as well as multilateral efforts between training institutes and firms, d) granting of special privileges (general labor cost subsides for personnel engaged in R&D, special investment subsidies for investment goods used solely for R&D, subsidies for investment in creating in-plant training centers), e) greater emphasis on performance evaluation. As a whole, it is better to bundle incentive measures to transparent program profiles than to create a large number of disparate, complicated programs.

- It is necessary to evaluate institutions and expenditures in technological competitiveness, financing programs for R&D, R&D efforts in the university sector, research institutes and the productive sector as well as in education and training for S&T. These, furthermore, should include S&T services infrastructure (e.g. information, norms and standards, consultative services, patents and trademarks, norms and standards.) as well as the means for diffusing information, increasing the flow of technical information and technical assistance to small and medium enterprises and improving quality standards.

- Introduction of a vocational model, comparable to the modified German dual system ("Duales Ausbildungssystem") for the vocational training of manpower in Thailand. Establishing inter-company training centers requires urgent involvement from representatives of the private sector (as government-sponsored activities alone have had very little impact on interaction with the private sector).

- Further developments should include enterprise zones and science or research parks. In such new growth centers, R&D-intensive enterprises are relocated to the park and these are supplemented by state research institutions. Furthermore it is necessary to induce complementary activities in the region, such as production and sale of new products.

4. Reconsidering FDZ Policy, Especially Information-led Support. Making efficient use of foreign investment involves not only attracting specific kinds of foreign investment likely to contribute to the Thai economy but also maximizing positive spill-overs (development of training, technology transfers, infrastructure, subcontracting, creation of local supply industries). Coordination forums abroad as well as adequate forums between foreign and domestic investors in Thailand have not yet been established. Thailand’s Board of Investment (BOI), for instance, could use its overseas offices and its many incentive programs to encourage foreign investors to provide technical assistance, develop local R&D and develop local subcontracting. A special institution should orient its work towards identifying market opportunities worldwide for Thai products and help firms assess technological options, and to acquire, negotiate, and master technology.

Meanwhile, it was frequently pointed out in the interviews that foreign investors are increasingly searching for new ways to do business without a Thai partner, which often hinders productivity and profitability. Customs administration, though improved compared to the early 1990s, is unacceptable for over 45% of the questioned companies; over 65% of the foreign companies complain about this area. Corruption, not only on the highest, but also on the lowest levels and red tape are also areas of concern.

Foreign investors complain that information policy lacks both transparency and user-friendliness. According to over 70% of respondents to the questionnaire, the BOI-Service is
judged as insufficient, partly incompetent and lacking dynamism. Further complaints by foreign investors are that BOI criteria are confusing, complicated and create considerable uncertainty. Short term improvements are urgently needed in this field in order to regain the confidence of international investors. Furthermore, revision of BOI-zones is recommended in the following directions: a) create more zones, especially differentiating between zones two and three, b) provide more spatial information for investors to compare different location alternatives, c) create more transparent, and clearer promotion catalogues. Setting up better information will create an open information policy for both local and foreign investors. This is partly a matter of tapping into good data bases. It also requires access to an effective and comprehensive information system, which is still not in sight.

(b) Spatial Structure

Greater Bangkok is the mega-city with the world's highest primacy index, meaning that the gap between the largest and second largest cities is more extreme in Thailand than any other country. Accordingly, the Thai capital, including the nearby Eastern Seaboard, is suffering from severe agglomeration disadvantages. In the middle and long run, this will continuously diminish Thailand's global industrial competitiveness, as it did in centralized France before industrial deconcentration programs. This inadequate situation requires urgent spatial reorganization and careful revision of spatial targets of industrialization. Thailand can no longer afford resulting economic disparities caused by wasting the potential of a large part of its country and people. Measures must be taken to develop and strengthen the internal, endogenous potentials of the regions in the middle and long term, by developing concepts appropriate for the Thai case, not just by copying policies and measures from similar examples, such as France, Malaysia, Japan, Germany or the USA.

Still, Thailand lacks a coherent regional policy. The concept of the European Union shows that any successful regional economic development strategy aiming at strengthening regional competitiveness can only achieve success if it coordinates all policy efforts affecting regional development. Regional policy has made a key contribution to developing problem regions. This does not necessarily bring about decentralization. As the example of highly centralized France shows, industrial deconcentration can bring even higher centralization. But deconcentration in favor of the country's overall economic development. Spatial industrial reorganization is the necessary starting point for a comprehensive, economically balanced structure.

Strategies to Counter Bangkok’s Agglomeration Disadvantages. The improvements achieved by new infrastructure projects in Bangkok will be relatively limited due to the degree of agglomeration already attained. Disparities in income, job prospects, education opportunities, social welfare and social services will widen further. The main aim of investments in transport, housing and infrastructure should be to improve facilities for the people already living in the capital, not to provide advance inputs for further immigration and concentration. To stop further agglomeration and congestion processes in Bangkok, the following strategies should be adopted: create a poly-centric metropolitan region through intra-regional deconcentration and decentralization; build a strategy of growth centers by promoting industrial parks; adopt a strategy of industrial decentralization by establishing industrial parks and demarcating industrial development areas as in Malaysia; and design a strategy of rural development by building physical infrastructure to raise living standards in rural areas. Though discussed in principle for years, the definitive political will to force decentralization and deconcentration through adequate policy measures has been lacking.
Identification of Problem Areas that Diminish Thailand's Competitiveness. So far, few analyses have concentrated on the regional, changwat and the especially needed amphoe\textsuperscript{14} level. This neglect has occurred despite the existence of very interesting, differentiated databanks: e.g., the NESDB amphoe survey, the population database center, and Geographic Information System (GIS) databanks, which are still not used for comprehensive regional studies. Studies on regional, changwat and amphoe levels would allow an in depth understanding and monitoring of means to promote industrial competitiveness in the peripheral, disadvantaged regions of Thailand. With these analyses, the identification of specific problem areas diminishing Thailand's competitiveness would be possible. Analyses of the potentials and deficits of infrastructure, economic, and especially industrial structures, for instance, show that in regional comparison, the southern, and not the northeastern provinces of Thailand will face severe economic problems in the near future, mainly due to unfavorable economic structures (unilateral industrial profiles, exhaustion of resources, severe environmental constraints, infrastructure deficits etc.) and patterns, including an unbalanced hierarchical economic system.\textsuperscript{15}

Strengthening Strategic Economic Centers at the Borders. Thailand could profit from further strategic economic centers at selected points along its international borders to gain market control and influence and to improve intra-ASEAN competitiveness, such as Hat Yai/Songkhla, Chiang Rai, Nong Khai, and Mukdahan. A distinct concept of nodal industry promotion for the peripheral zones should be considered as a long-term development prospect for the border regions. Here, the former inner-German border fiscal incentives or the European Union's regional policy targeting regions with substantial economic potential in the peripheries could serve as examples.

Definition and Demarcation of Economic Regions. Thailand also needs a less concentrated industrial structure with several growth poles. Currently, the country is wasting regional potential that could contribute to economic stabilization. Real political will for deconcentration and decentralization is absent.

So far, decentralization efforts in Thailand are confined to the province level. The main starting point and intention for a decentralization policy was to reduce infrastructure and economic deficits in these target provinces. This form of spatial planning and development ought to be revised in two directions: a) As the changwat level is inappropriate, spatial economic development should take place at the amphoe level, analyzing existing data, and b) economic planning procedures should shift from target planning to planning based on the specific potential of certain areas. Regional conferences could function as round tables for comprehensive regional development, focusing on economic, and especially industrial, advancement.

To promote industrialization adequately, it is necessary to identify, define and demarcate distinct economic regions with high potential and actual industrialization in selected sectors. To accomplish this, an altered Industrial Estate Authority of Thailand (IEAT) policy should be integrated into the program.

(c) Industrial Information Structure

Industrial planning for both ministerial departments and investors is not possible without good-quality and widely available socioeconomic information and analyses of industrial structure and regional performance. To enable information-led planning and coordination, an industrial data center should be established. Many databases already exist at

\textsuperscript{14}Amphoe is the Thai word for district.
\textsuperscript{15}For maps, see paper in Volume II.
NESDB, MOI, BOI, the IEAT, the National Statistics Office (NSO) and others, but the departments rather tend to guard them for their own use with scarcely any interdepartmental, horizontal exchange. A Management Information Center (MIC) in the MOI has recently been created, but it is still in the stage of development. Apart from the MIC, which is serving the MOI, a regular exchange of relevant industrial data should be established between the various departments within and between the key administrations and private institutions such as the Thailand Development Research Institute (TDRI), Thailand Environment Institute (TEI) etc. Necessary data are not generally available in digital form on disk or CD-ROM, and special industrial data are kept in the departments. No comprehensive WWW-Service is available supporting information for both planning and private sector development, namely Thai and foreign investors.

An institutionalized roundtable between government, NESDB, MOI, BOI, IEAT and other leading economic and industrial institutions should consider industrial structure and profiles as well as regional monitoring to define a common industrial policy and create clear responsibilities. It should also coordinate and adjust industrial measures, prevent further redundancies, decide on and commit obligatory control instruments and institutions, and, in the best case, nominate a high ranking, impartial person who possesses high authority to mediate between the parties.
Sanjaya Lall analyzed Thailand’s competitive position vis-a-vis its international and regional competitors and its factors of competitiveness in a detailed and convincing manner. I share the sense of puzzlement at the sudden crash of 1996. Frauke Kraas’s paper is based on extensive research on Thai manufacturing companies and their performance. Given time constraints, I will not comment on specific analytical points and policy recommendations in these papers. Instead, I would like to share with you my impressionistic view of the pattern of Thai industrial development and what I consider important areas for government intervention as a matter of priority for continued development of Thailand’s industrial sector.

At the risk of oversimplification, Thailand’s industrial development can be stylized as fundamentally export-oriented and foreign resource-based (defining foreign resources as comprising not only capital but also technology, marketing and managerial know-how in this context). This characteristic was particularly pronounced after the mid-1980s when massive FDI began to flow into Thailand, possibly as a result of the 1958 Plaza accord on the exchange rate realignment among G-7 countries.

Two sectors within Thailand’s industrial sector should be considered. First is the sector consisting mainly of affiliates of multinational corporations (the MNC sector) that created productive capacity through foreign direct investment (FDI). The second consists of indigenous enterprises of all sizes. As in many other newly industrialized countries pursuing a similar industrial strategy, such as Singapore and Malaysia, the MNC sector has on average realized higher productivity reflecting superior production technology and richer managerial resources and efficiency than the indigenous sector. It is probably more capital-intensive, and the skill levels of its workers are higher. Its marketing organization is highly internationalized and efficient, and intra-firm trade accounts for a substantial portion of total production. This sector’s productivity has been growing apace with Thailand’s increasing labor costs and along its rising learning curve.

To further simplify, the relationship between the two sectors is not only one of co-existence, but often quite symbiotic. The indigenous sector provides support to the MNC sector's operations in many ways, and, in return, the MNC sector's higher productivity rubs off on the indigenous sector. This spill-over effect operates through many channels; (1) technology transfer through contracting and sub-contracting relationships; (2) technology licensing arrangements; (3) workers' skills up-grading through migration of MNC sector-trained workers to the indigenous sector; (4) the MNC sector-employed managerial staff becoming indigenous entrepreneurs and managers; (5) use of marketing channels originally opened up by MNC's; and (6) pure demonstration effects. It is probably not too far off the mark to say that expansion and productivity growth of the indigenous sector would not have taken place but for the existence of the MNC sector.

There is no reason to expect this pattern of industrial development to change radically in the near future. Under these circumstances, Thailand must find solutions to the following three problems:
1. As Thailand’s labor costs continue to increase and infrastructure and skills provision are increasingly in short supply, how can Thailand encourage the MNC sector to continue investing and enhancing productivity in the country’s economy?

2. How can Thailand maximize the spill-over effect to the indigenous sector of the MNC sector’s productivity growth?; and

3. What can the government do to facilitate solutions to these problems?

Sanjaya Lall’s paper and others provide answers to the first question. However, the above-mentioned nexus between the two sectors, that is, the second question, is equally important and deserves more attention. For example, if this pattern of industrial development were to continue, Thailand’s low level of R&D expenditure would not be of concern, as technology improvement is likely to come from the MNC’s accumulated technology stock (including adaptive research) rather than from the indigenous sector. Far more important would be the provision of “technology extension services” to small and medium-scale supporting industries within the indigenous sector. “Networking” between the two sectors would also be crucial for maximizing the spill-over effect. Equally important would be exposing managers of the indigenous sector to state-of-the-art managerial know-how and production technologies through visits to the MNC’s home ground. In Japan, the Japan Productivity Center, a member-supported foundation, organized overseas study tours for many years and for a large number of company managers for networking and exposure, with substantial effect.

Returning to the third question, for inducing FDI and strengthening the nexus between the two sectors, strategy and policy for industrial location and infrastructure provision are extremely important in the context of Thailand. Many cite the impossible traffic congestion and the agglomeration of economic activities in and around Bangkok as a major drawback to further FDI inflows. Frauke Kraas made an important contribution by explicitly dealing with this issue. Apart from Hong Kong and Singapore, two city states which have no other choice, other comparable countries such as Taiwan, Malaysia, Korea, Indonesia and even the Philippines all have "poly-centric growth poles." It is time that the government of Thailand decide on a fundamental strategy and policy for spatial development and act on it in a decisive manner.

Almost forty years ago, Albert Hirschman argued that provision of social overhead capital is essential for economic development, but that investment in social overhead capital need not always be balanced with investment in directly productive activities. In other words, he advocated restraint in infrastructure investment until the shortage becomes obvious and the adverse effect appears in the form of increased costs of production. In the context of Thailand’s pattern of industrial development, however, provision of social overhead capital should always precede investment in directly productive activities. In fact, the government's policy should probably aim at creating excess supply in of social overhead capital. This is because Thailand’s MNC sector – which is the prime mover of industrial development – has a high degree of freedom to choose other industrial locations outside of Thailand. The government of Thailand must take the lead - and make a leap - in provision of social overhead capital.
Discussant: Supavud Saicheua, Phatra Securities

As the last speaker, I would like to look at these issues from a much broader perspective.

We are trying to define Thailand's comparative advantage. In what areas can Thailand be most competitive now and in the future? The previous discussion suggested that the government should play a role in improving competitiveness, and that it may have a better record of identifying Thailand's areas of comparative advantage. Government intervention, however, may not be the best solution as it points to market failure in the system.

As for the suggestion by Frauke Kraas that there is a need to diversify economically beyond Bangkok, I think we all agree that Bangkok is becoming too big, and too concentrated. But why shouldn't the market resolve that problem? Why aren't price signals working? Why are industries not leaving Bangkok, even though it is profitable to do so? These questions must be answered before calling for government intervention.

Finally, regarding the collapse of exports in 1996, I would like to present two anecdotal explanations.

One is that the figures from 1995 might be overstated. The reason is simple. The government began to discover that, in response to the introduction of value added tax (VAT) rebates for exported goods, exporters might have been over-reporting exports to get tax returns. In the country's export statistics, there were some strange figures reported such as exports to unknown destinations rising by some 20 times, in instances where this is quite abnormal. The government cracked down in 1996 and the figures adjusted to more realistic levels. As a result, we saw a collapse of export figures in 1996 relative to 1995.

The other explanation may be that exporters themselves have problems that are not directly related to their export products. For example, it is very clear to us in our research that non-tradable goods prices and asset prices rose enormously in the previous 5 years. That is, exporters began to diversify into property, stocks and other investments of the sort. Once those investments began to become less profitable, they themselves found it difficult to get credit from banks. The fact that exporters were distracted from their core operations is thus one possible explanation for diminishing Thai export competitiveness prior to the crisis.
Thailand’s Trade and Infrastructure

Thailand's economy has undergone substantial changes over the last 25 years. From an agricultural economy based on a narrow range of export commodities, the country has developed into one that is sometimes listed among the world's newly industrializing countries. The changes in the economic structure since 1960 have been brought about in the context of an open economic system that has promoted maximum private sector investment. Government investment activity in the early stages of planned development was concentrated on the provision of infrastructure. These activities served to open up large areas of new agricultural land for cash crop cultivation and, combined with investment incentives, encouraged the rapid development of an industrial sector, based on import-substitution.

While the annual growth rates of Thailand's international trade transactions thus gathered and maintained a high profile for a considerable period of time, a number of issues have emerged since the mid 1990s that constitute serious threats to the country's ability to sustain internationally competitive exports. The contributing factors are manifold, pointing to structural defects in policies and regulatory regimes on the domestic scene. These circumstances have brought about a situation in which several elements of the national economy, relevant to industrial and trade performance, have become increasingly dysfunctional. Significant changes in the global markets, exemplified by fundamental restructuring in production and trading organizations and practices, exacerbate the threats to Thailand's continued ability to sustain export growth.

A key element that drives changing behavior in international trading is the value of time. Market volatility and rapidly changing consumer attitudes have induced a trend whereby industries and trading organizations, worldwide, conduct their activities with steadily decreasing inventories. Inventory management concepts like "just-in-time" and "constant replenishment" are now universally applied. While product quality and costs are still important criteria for marketing success, the ability to deliver on time and to effectively respond to customers' requirements of short order cycles have attained an even higher relevance for competitive success. It is here where some of the key threats to Thailand’s continued ability to expand its export markets has to be seen. A look at the experience record with Thailand's principal competitors in international markets suggests that their successes were, to a large extent, based on the availability of demand-responsive infrastructure and services. Particularly important in this context are efficient transport and telecommunication networks.
In Thailand, transportation and communications infrastructure has traditionally been thought of as physical systems that move goods or information from one point to another. But Thailand’s Asian competitors captured, by virtue of breakthroughs in technology, services, and government regulations, the benefits of a new generation of infrastructure, which manifests itself not only in terms of physical systems, but also in terms of value-adding services, supported by regulatory as well as institutional regimes that enable these systems to achieve their potential effectiveness. This new infrastructure is so significant that it is reshaping many industries and presents profound implications for entire economies. As East Asian examples show, innovations in business practice are becoming more pervasive and universal, and thus have the potential of dictating much of the future pace of economic progress in Thailand, if applied diligently. For the Thai government and the local business community alike, this creates a need to closely monitor the causes and effects of changing international trends in manufacturing and trading.

A principal impediment to sustainable competitiveness of Thai industries in the international markets is the state of the country’s trade supporting infrastructure. At present, Thailand’s water, energy, telecommunications, and transport infrastructure systems exhibit major shortfalls. The organization and management of these systems, and the quality of related service offerings fall substantially short of meeting user demands. One of the reasons why little progress has been made in adjusting Thailand's industrial base and trade organization to the changing international competitive environment is to be seen in the fragmented structure of government and the public administration. These circumstances have led to ineffective, sometimes even counter-productive interventions, and ill-guided investment decisions. Because of the fragmented nature of the Thai public administration, serious consideration has to be given to options for overcoming the inherent vacuum of decision-making and the provision of guidance.

Policy Recommendations

Thailand’s government has at its disposal a set of instruments with which to stimulate the development of a competitive service sector. Some of these, such as trade, fiscal and monetary policies, fall within the scope of macro-economic policy. Others may necessitate changes in the institutional and regulatory framework, while the achievement of more specific objectives may call for particular strategies aimed at positioning national enterprises in the international market. Overall, attempts to strengthen the organization and provision of services will entail devising and applying specific strategies to overcome the weaknesses characteristic for existing trade supporting infrastructure and services.

The incorporation of foreign service providers to assist in the attainment of sustainable development, whether by facilitating access to new technologies, information networks and distribution channels, or by improving capacity for training and by the generation of domestic know-how, may be an important component of a new industrial and trade development policy. But without substantial improvement of domestic infrastructure, a liberal regulatory framework that governs the service sector, and businesses that are willing and able to apply modern logistics management techniques, the outlook will not be promising. In effect, if Thailand and its business community are unable to adjust to these new market practices, there is a real risk that it will become increasingly marginalized in international trade markets.
I agree with Hans Peters that just-in-time transportation will substantially help reduce the cost of production and service provision. However, the lack of just-in-time transportation is not the only impediment to the competitiveness of Thailand's transport sector. The causes, apart from the inability to adopt just-in-time systems, could be inertia in the private sector itself, tight government protection, and weak competition.

The fact that the Thai petrol industry, in reaction to intense competition, has decreased its inventories over the last decade, demonstrates that infrastructure services are not major obstacles causing firms to maintain large inventories. Nor can they be considered as the main causes for inefficient production in the domestic economy. The petrol industry is open to full competition and lacks government protection. This is demonstrated, for example, in the establishment of refineries and gas stations, as well as price setting leading to low inventories. The rapid responsiveness of domestic oil prices to the world market reflects the industry's effective just-in-time inventory system. Nevertheless, I have nothing against the suggestion from the study.

In the case of energy, inefficient generation and distribution of power prompted private industries to install their own power generators, and required factories to possess a long list of inventories. Hans Peters seems to support private participation in power generation, especially so-called co-generation schemes that generate both electricity and steam to maximize production efficiency. These privately owned generators can also serve as stand-by facilities.

Over the past 30-40 years, Thailand's infrastructure services, including transportation, energy and water resource management, have significantly improved. Despite these improvements in infrastructure services, several issues remain to be addressed. To regain the country's competitiveness, especially in exports, the standard of infrastructure services, e.g., communications, transportation and electricity, should match those of developed countries. Outdoing our competitors is not sufficient.

Privatization, also suggested by Hans Peters, would help improve the efficiency and quality of services, lower prices, and decrease production costs. In practice, we have partially privatized some state enterprises by allowing private sector involvement in delivering certain services such as telecommunications and electricity. If we are to realize the maximum benefit, all services should be completely privatized and the concept of competition should be applied at all levels. With respect to Independent Power Producers (IPP), bidding for contracts created competition in power generation for the Electricity Generating Authority of Thailand (EGAT). No competition existed, however, in natural gas procurement, which is monopolized by the Petroleum Authority of Thailand (PTT). The next round of IPP bidding should create competition in the procurement of natural gas, whereby the operators can procure gas supplies from any source while still using existing PTT gas pipelines. Competition will eventually result in cheaper tariffs for consumers.
Competition is an important means for creating better infrastructure services. Though private sector involvement is welcome, it is necessary to ensure that it does not pave the way for monopoly power by any private group.

So far, we have done as much as the laws allow us to do. To achieve successful privatization and market liberalization, obsolete rules and regulations should be revised, and certain laws amended. The Corporatization Law will play a part in facilitating the privatization process. More efforts are needed to remove legal impediments. By the same token, concerted action for full privatization of electricity services requires a new law and an independent regulatory body. It is hoped that the new Constitution will help speed enactment of legislation.

Discussant: Praipol Koomsap, Thammasat University

Hans Peters’ paper offers an interesting and beneficial recommendation of a solution to the logistics management problem.

It is true that Thai freight movement relies almost entirely on trucking, which has a virtual monopoly on transportation in Thailand. Trucking accounts for approximately 90 percent of total goods transportation, due to its low cost and convenience. Despite its low financial cost, trucking creates several negative economic externalities, e.g. environmental problems and traffic congestion.

With regard to rules and regulations, customs procedures have been identified as a major problem for import and export businesses, causing inefficient logistics management. Also, law enforcement, even concerning safety and environmental issues, is problematic. These challenges require comprehensive solutions and decisive political will; piecemeal approaches to such deep-rooted problems will not work. To exemplify the case, Hans Peters cited Mexico in 1988, when the government radically restructured institutions, regulations and procedures of the Customs Department. Thailand, however, is not ready for such a dramatic change as we must focus first on the current emergency situation.

Second, the monopolistic nature of private and public enterprises in transportation and communication services leads to economic losses, except in the case of regulated natural monopolies. Thus, privatization should be carried out. Increasing private participation in new facilities where no state enterprise is involved, such as mobile telephone systems and the Laem Chabang deep-sea port, is usually less difficult. Problems lie mostly among services run for many years by state enterprises such as the Express Transportation Organization (ETO) and the Electricity Generating Authority of Thailand. Privatization of these enterprises is likely to encounter resistance by both employees and executives.

So far, the framework of policy implementation in privatizing infrastructure services is unclear, especially in the case of the telecommunications and transport sectors. Many questions need to be answered:

What is the appropriate regulatory body in each area, and what should their role be? Who should be the regulator? Mr. Peters gave an example of the confusing roles of operators and regulators in the case of the Telephone Organization of Thailand (TOT) and the Communication Authority of Thailand (CAT).

The appropriate privatization method also remains open to question. Privatization should not result in simply transferring monopoly power from the public to the private sector.
Moreover, there is a concern that privatization will result in foreign domination and a loss of national pride due to the superiority of foreign firms in terms of capital and technology. Therefore, in inviting foreign companies to participate, studies need to be done to judge how great and extensive their roles should be.

Another point of concern is the role of politicians who make decisions on granting concessions and licenses. This is a matter requiring trustworthiness and discretion. Examples of failures are the Hopewell Project and the Second-Stage Expressway.

Lastly, Hans Peters pointed out the need to restructure the public sector and its administration, yet did not make any suggestions for implementation. One approach is for a ministry, either the Ministry of Transport or the Ministry of Finance, to serve as the core agency for logistics management. This, however, may not be appropriate for Thailand. A suitable solution may be to establish an inter-ministerial coordinating committee, to be chaired by the Prime Minister or a Deputy Prime Minister. The success of the restructuring program depends on several variables, e.g., the severity of the problem, cooperation among major parties, and the ability of the secretariat to identify key issues and conduct effective monitoring. In addition, private organizations, e.g., the Thai Bankers’ Association and the Federation of Thai Industries, have not yet closely cooperated in the problem-solving process. The above issues should be examined in the next stage of the competitiveness study.

**Discussant: Kazuyuki Mori, JDB**

First of all I would like to express my deepest gratitude to NESDB and the World Bank for inviting me to participate in this important and timely seminar. It is also my honor to comment on Hans J. Peters’ very informative presentation and paper.

As Hans Peters explained, logistics, or physical distribution in traditional terms, has become a very important managerial and competitive factor for international business. Promotion of infrastructure development and deregulation, which Hans Peters stressed, is directly applicable to Japan. In order to attain modal shifts, which are a priority on Japan’s agenda, railway infrastructure development and coastal shipping deregulation are strong prerequisites. Policy coordination among related government organizations is indispensable. The relevant Japanese ministries have long been criticized for not including coordination in their policies on physical distribution. It was as late as April 1997 that Japan’s cabinet reached broad agreement for the first time on formulating comprehensive measures on physical distribution.

Some Japanese experiences in physical distribution during the high-growth period may, however, be relevant for Thailand. Although lacking coordination among relevant ministries, Japanese government policies on physical distribution, especially for truck transportation, were considerably supportive for industry.

First, the Japanese government introduced a gasoline tax system in 1953 as a designated fiscal resource for general road development. As motorization progressed, the tax base expanded rapidly. In addition, the Fiscal Investment and Loan Program, a government-administered scheme that is based on funds from postal savings and pension premiums, has financed toll roads. As a result, road infrastructure has been fully developed with secured sources of financing.

Second, taxes and fees charged for trucks are significantly lower than those for passenger cars, meaning that the business sector is subsidized by the household sector. By
weight, the fuel tax for diesel oil, which is used by trucks, is about 60% of the gasoline tax; and in covering the maintenance cost of roads, the tonnage tax and the highway tolls for trucks are respectively one-fifth and one-tenth of those assessed on passenger cars. Trucks are charged lower rates although they actually damage the roads more heavily. The grind-down rate of an automobile is equal to the weight of the vehicle to the power of four. The damage done by a large truck can be as much as 2,000 times that of a sedan. If environmental costs are taken into consideration, truck transportation is actually further subsidized. Trucks emit 16 times more \( \text{CO}_2 \) than trains in transporting the same tonnage the same distance.

A third feature of Japan's physical distribution system is that truck cargo transportation in Japan was deregulated in 1970, ten years earlier than the US deregulation, which started in 1980. This deregulation enabled flexible transportation to accommodate the then-burgeoning just-in-time production system employed by Toyota and other Japanese companies. These three factors combined to promote truck cargo transportation, which was indispensable for industrial development in Japan, even though there was no clear government policy coordination.

Lastly, I would like to make a comment on foreign direct investment (FDI). FDI has been instrumental in the rapid industrialization of ASEAN countries, especially Thailand. FDI is still vital for recovery and for enhancing local industrial competitiveness. As Hans Peters pointed out, MNCs operate on global logistical standards and hence locate their businesses largely according to logistics availability. The development of logistics capacity is important for FDI promotion, which in turn will enhance the competitiveness of local industries.
SESSION 6. REMOVING BOTTLENECKS TO PRODUCTIVITY (II):
LABOR MARKETS AND SKILLS DEVELOPMENT

Presentations

Presenter: John Middleton, The World Bank

Skills for Competitiveness

Learning to master the management, use and upgrading of technology is an important factor in improving a nation's ability to produce and export goods and services at levels of quality and price that enable it to gain market share while maintaining profitability— in short, in national competitiveness. Sustained dynamic efficiency depends heavily on domestic capabilities to generate and manage change in the technologies of production. In this context, management and work force skills contribute to increased labor productivity, with the potential to increase individual earnings while maintaining competitive labor costs relative to international markets.

Education, scientific and technological research and development, and skills training are thus of central concern in the drive toward increased competitiveness. The present financial crisis makes it even more important to maintain momentum in building the longer-term competitiveness of the economy. Restructuring education and training to provide the quantity and quality of skills needed for the new economy should hold center place in this effort.

A decade of sustained economic growth and job creation has led to major changes in the Thai labor market. The workforce has grown by 25 percent since 1986, adding six million jobs while, until the recent recession, low levels of unemployment have been maintained. Education has played a key role in these changes. The number of workers with some secondary or higher education increased by about 2.8 million between 1988 and 1996, providing a pathway to wage employment. Earnings of secondary and university graduates have been rising, as have returns to education at all levels except lower secondary. Available data indicate an overall match in the demand for and supply of educated labor.

At the same time, wages in Thailand have grown faster than productivity, reducing competitiveness. Rising wages, and complaints by employers of the difficulty of finding skilled workers, indicate an increasingly tight labor market prior to the recession. This in turn put at risk continuing rises in wages and began the erosion of competitiveness.

Relative neglect of secondary and higher education in the 1980's has led to a comparatively low stock of educated workers. As firms are most likely to provide training to more highly educated workers, the low stock has acted as a brake on productivity growth. Of particular concern is the small stock of science and engineering skills.

Based on a paper by John Middleton and Zafiris Tzannatos, The World Bank.
Comparatively high labor costs, without matching increases in productivity, have eroded the competitiveness of Thailand's low-skill export industries. Higher skill, higher productivity manufacturing could enable the Kingdom to return to growth while reducing income inequality. The skills needed for the higher productivity manufacturing and services are increasingly information and knowledge based. These include ability to communicate, work in teams, solve problems analytically, and to use information technology. These skills are not well developed in the present secondary education system.

Policy Recommendations

These labor market issues point clearly towards needed structural reforms. In education, the challenge is to expand secondary and tertiary education and to ensure the quality of learning outcomes that foster innovation and higher productivity. This includes expansion and quality improvement of science, technology and engineering education. In work force training, incentives to increase training by employers, and restructuring of the pre-employment vocational education and training systems, will be required. Fortunately, the Government has taken important first steps towards these policy objectives. The challenges are to accelerate and deepen the reforms that have been initiated.

Secondary Education. Expanding and reforming secondary education is a major challenge. A large part of public expenditures at the upper secondary level are devoted to expensive vocational schools that provide pre-employment training that is increasingly inappropriate for Thailand's dynamic economy.

Aggressive efforts to expand secondary education, begun in the early 1990s, are beginning to pay off. If recent trends are maintained, the number of secondary graduates will double by the year 2002. A strong policy framework for the reform of secondary education has been established. Key policy actions should include: strengthening capacity for policy research and implementation, expanding private financing, adjusting curricula to improve the trainability of graduates, and reforming vocational education to provide the skills needed for a higher technology economy.

Higher Education and R&D. Although expanding rapidly in recent years, tertiary education in Thailand is still small relative to competitive economies. As the number of secondary school graduates increases, the capacity of the system to equitably meet social demand for higher education is in doubt. Nor are Thailand's universities providing enough science and engineering graduates for a high technology, high productivity economy. Investment in scientific and technological research is low by comparison with neighboring economies.

Steps are being taken to strengthen and expand higher education. These reforms include making universities more autonomous, diversifying finance, and upgrading faculty, curricula and equipment. Key policy actions could include expanding science and engineering education, as well as scientific research and development.

Work Force Training. Higher skill, higher productivity manufacturing could help the Kingdom to return to growth while reducing income inequality. However, the low stock of education in the work force poses a serious constraint, both to overall productivity increases and to the training that could raise skills.

As technology mainly enters the economy through the private sector, it is important that Thailand encourage firms and private providers to deliver training services. The Government has taken steps in this direction. The tax exemption scheme for training expenditures has been streamlined to improve disbursements. Ceilings on tuition charges of private schools, including technical and vocational schools, have been removed, which should help them move more aggressively into the training market. Additional policy options could
include: strengthening mechanisms for training policy coordination, opening public training institutes to market forces, and expanding public/private collaboration in worker training.
Removing Financial Bottlenecks to Labor Productivity

Background, Sample Selection and Methodology

The National Institute of Health and the National Science Foundation of the US have been funding through NORC/University of Chicago a large socio-economic/institutional survey in Thailand, which serves as a major input for the paper on which this presentation is based. An initial survey was completed in May 1997 and covered regions both on the doorstep of Bangkok and in the relatively poor northeast. We thus have an unprecedented degree of recent pre-crisis socio-economic and financial data on 2,880 households, 606 small businesses, 192 villages, 161 local financial institutions, 262 small borrowing groups of the Bank for Agriculture and Agricultural Cooperatives (BAAC), and soil samples from 1880 agricultural plots. A second survey of 42% of the original sample to secure data on the impact of the crisis is funded by the Ford Foundation. Another, smaller survey sampling 16 villages month to month for two years, started in July 1998. All of these surveys have been done by the Association of Production Credit Groups. We have the cooperation of the BAAC and the Community Development Department of the Ministry of the Interior.

The surveys cover the provinces Lopburi and Chachoengsao, relatively near Bangkok; part of the latter is in an industrial corridor. The survey also covers the provinces of Buriram and Sisaket; the latter may be among the poorest in Thailand. The gain from this deliberately chosen contrast is obvious. The provinces themselves were chosen because at least one amphoe\(^\text{17}\) in each province was selected by the Thai Socio-Economic Survey (SES), conducted every two years by the Thai Government’s National Statistics Office (NSO) and, providing a baseline history for our own survey. Within each province, 12 tambons\(^\text{18}\) were selected as a stratified random sample, the stratification ensuring an ecologically balanced survey that included two “forested” tambons. Within each tambon, 4 villages were selected entirely at random. Within each village, 15 households were selected entirely at random, the first 10 of these for soil samples.

The institutions under consideration are national-level institutions (commercial banks, finance companies, insurance companies, and the government savings bank); county or village-level institutions (rice banks, production credit groups, rotating credit associations, and local indigenous funds); informal institutions (money lenders, traders, shopkeepers, and networks of family and friends); and interactions among these.

The questionnaires of the survey were designed with the latest advances in economic theory very much in mind. The theories under consideration here include models of liquidity constraints in human capital formation, in occupation choice, and in input financing; models of growth with costly financial deepening; and models which take into consideration private information and incentives.

We proceeded by imagining from theory what the true story underlying Thai growth with inequality and financial deepening might have been, or more formally, by writing down

\(^{17}\)”Amphoe” is the Thai word for district.

\(^{18}\)”Tambon” is the Thai word for sub-district.
and simulating a variety of economic models. This generated a list of variables crucial to telling whether a particular story or model has any validity, and this list formed the basis for the questionnaires and the field research. The results yield the following policy recommendations, based on both theory and survey data.

In broad terms, the surveys show that various aspects of rural credit markets are poorly developed. Household businesses remain underfinanced. There also remain ample and unexploited possibilities for risk/portfolio diversification. The theory of mechanism design suggests other possibilities for regulation, supervision, and innovation.

Main Findings and Policy Recommendations

**Commercial Banks.** Because commercial banks are relatively inactive in the semi-urban and rural areas of Thailand, especially on the lending side, every effort should be made to remove obstacles. Commercial banks should be free to set their own on-lending rates, with a premium for agriculture and small business if they view the risks and costs to be high. The Bank of Thailand should reconsider its use of minimum retail rates (MRR), with uniform markups. This does not preclude the prevention of monopsonistic inefficiencies. Related, the new foreclosure law should create a legal (and social) climate under which penalties and stigma are attached to nonperformance and default on the part of borrowers. Commercial banks should enter into clearly understood and explicit contracts with farmers and small businesses, contracts which allow rollovers and adjustments to external shocks. Thus loans affected by such shocks would not be counted as non-performing loans per se but increased provisioning might be necessary depending on analysis of the historical data.

Relatedly, documentation of improved customer screening, communication, and direct disclosure should receive much more emphasis in regulatory changes, as should more conventional levels of loan diversification, e.g., investment into a diversified portfolio of agricultural assets, thereby avoiding excessive concentration in real estate. The overall presumption should be full public disclosure of procedures and portfolios. Finally, interactive research should continue to explore actual or potential barriers in lending to agriculture and small business by commercial banks.

**Bank for Agriculture and Agricultural Cooperatives.** The BAAC charter should be modified to allow lending to business, health, and housing, dropping all references to percentage ceilings of any such activities and leaving behind the idea that only farm households are the real targets of BAAC lending. Any implicit or explicit understanding that the BAAC and commercial banks should not compete with one another should be dropped insofar as ex ante competition is concerned, while long-term multi-period contracts should be respected. Related, the BAAC should charge customers competitive on-lending rates, covering the costs of such loans with a reasonable margin. Concessionary sources of funds, at below market rates, should be priced internally at market rates, and if certain target groups receive concessional on-lending, the subsidy to them should in turn be made explicit. Contractual arrangements for risk mitigation and procedures for internal communication and monitoring should be made even more explicit, again for reasons of clarity and to avoid the appearance of non-performing loans. A full array of savings and insurance instruments should be offered at market rates. Full disclosure should be maintained, and the issue of BAAC equity (or profits sharing) to BAAC loan officers, customers, and farmers in general should be encouraged.

**Village Funds.** Production credit groups (PCGs) and other indigenous funds should also be studied as a potential vehicle for the expansion of Thai rural credit. Indeed, cooperative movements were the starting points for the contemporary financial grants of Germany and Japan, and there is no reason in principle why a similar development could not take place in Thailand. A first step is to gain a better understanding of the successes and
failures of PCGs, and of the great institutional and socio-economic variation over villages within a tambon. This is part of the ongoing research project. New PCGs might be established, or existing PCGs expanded and connected one to another. Tampon or amphoe level associations should be designed with an awareness of the possibility of increased risk diversification, that is, by maintaining local provisions for "insurance" and incentive compatible welfare, and extending these to larger areas. Standardization, formalization, and uniform accounting need not rule out these provisions. The government savings bank might lend to community groups but only as the rating system is put into place.

**Tiered Lending.** An alternative to direct lending by banks or by the BAAC would be the use of the PCGs and other village organizations as second tier lending (and saving) institutions. In that spirit, greater accessibility by those in rural and semi-urban areas to mobile bank vans, ATMs, and other facilitators might be promoted if these can be made self-funding by user fees at appropriate fixed and marginal costs.

**Bank of Thailand** The financial system should move toward full and complete disclosure of portfolios and lending procedures substantially altering laws requiring secrecy. The Central Bank should make explicit the rules for limited deposit insurance with liability clearly delineated in advance.

**Information Systems.** The Thai government should consider a two pronged strategy to make full use of improved information systems in the formulation of economic and social policy. One prong would work toward connecting the many pieces of useful socio-economic information that are currently scattered across various Thai ministries. The second prong would envision the collection of additional useful information through repeat surveys. In this way, data and candidate models can be used to track the evolution of the economy and be available for monetary, regulatory, and other policy evaluation on a systematic basis.
Discussion

Discussant: Rung Kaewdaeng, National Education Commission

John Middleton's "Skills for Competitiveness" is a well-prepared and comprehensive research effort on the Thai education and training system. It presents a macro view that reflects the crisis in Thai education.

An IMD paper on the *World Competitiveness Report 1997-1998* finds that the productivity of 19 Thai laborers is equivalent to that of one Japanese, and the productivity of 61 Thai farmers is equivalent to that of one Israeli.\(^1\)

Current education problems encompass both the quantity and quality of schooling. For example, the average school attendance of Thais is only three to five years and most have only a low level of training. Also, as John Middleton pointed out, the number of Thai students entering secondary school is less than those of other Asian countries. The ratio of the population entering higher education is low as well, though the existing figures seem to suggest the opposite. Thailand has two of the largest open universities in the world, and each registers 500,000 students.

In terms of quality, the Third International Math and Science Study (TIMSS) shows that mathematics and scientific skills of Thai students are superior to those of American and British students, but inferior to Singaporean students who are at the top in both fields. At the 1997 Mathematics Olympic competition, Thai students failed to match the levels of their Vietnamese counterparts.

Another main concern is that Thai students are taught to memorize, not to analyze or think critically.

The Education Council's research on education reform in nine countries concluded that the failure of Thai educational reform is rooted in policy discontinuity resulting from frequent government changes. Moreover, the government spends more time discussing than implementing. However, in recent years, this has to some extent improved.

The new constitution marks a golden era for education. Education will now enjoy strong political support. The constitution contains eight articles concerning education. Article 43, for instance, states that Thai citizens have the right to receive 12 years of free education. The provisional clause sets the timeframe for implementing the said Article until the year 2002. Another article regards the formulation of National Education Policy Law, consisting of 66 Articles that are being considered by Parliament because they are one of the organic laws under the new constitution. John Middleton stressed Article 43 (2), which says that private education shall be accredited by the government. When Parliament passes these organic laws, educational reforms will begin. The opportunity for education will increasingly be opened to individual, family and community levels.

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\(^1\) The International Institute for Management Development (IMD) in Lausanne conducts a yearly competitiveness ranking of a many of the world's economies.
Discussant: Ammar Siamwalla, TDRI

John Middleton's paper provides a good summary of existing research. The education issue has been discussed for years, yet it seems that we have not made much progress in terms of implementation. A major concern is that existing problems will never be effectively solved. Financing is also important. The World Bank suggests that students share the costs of education. Given the existing disparities in educational levels, we must take this issue seriously. Public investment in education should emphasize secondary education to enhance the productivity and capability of the majority of the labor force. The present public subsidy in favor of higher education vis-a-vis secondary education should be reversed. If we must comply with budget cuts, university subsidies should be the first to be considered.

Different opinions have been expressed regarding science and technology. Some claim that the budget for research and development is insufficient. Others argue that small and medium-sized enterprises do not have enough support. Currently, the shortage of engineers is so serious that there are not enough to spare for R&D. Investment in upgrading science and technology standards of Thai labor should not be postponed due to the fear of oversupply. If new graduates are unable to find jobs, they can establish their own businesses and thereby improve the competitiveness of the SME sector. Investing in education in science and technology will also increase the number of engineers available to conduct research.

There is much to be learned from Robert Townsend's study, especially regarding household savings and indebtedness. It is important to expand financial facilities in the rural and semi-urban areas to help strengthen local entrepreneurship following the example of the Grameen Bank in Bangladesh. Credit should be redirected to provincial areas where it is most needed, instead of supporting non-productive speculative investments. Policy makers should consider debt as a tool for capital formation, not a problem. Townsend believes that farmers' problems stem largely from their inability to obtain credit. Hence, we should recognize that debt is, in fact, a tool to overcoming hardship.

I agree with John Middleton that the lack of information is a major weakness in Thailand. Statistical surveys should be conducted regularly. Thailand is considered one of the most undeveloped countries in terms of statistical information. Information is collected and stored at many different agencies, and is often contradictory, one example being unemployment figures. In other cases, statistics do not exist at all, including information on wages and industrial production indices. These create obstacles for planning and decision making. Bangladesh, a less developed country than Thailand, has an even better system. Thailand should invest in and establish an adequate information system.

Discussant: Medhi KrongKaew, Thammasat University

Robert Townsend's study presents several novel ideas worth pursuing. His other works, using Chicago School methodology to examine European economies from the Middle Ages to the present day, are also insightful.

Robert Townsend employs inductive methods by using empirical evidence to support his theory. He suggests that social problems are dynamic. They change consistent with the current surroundings, so no single theory or practice is applicable for all cases.
A recent study on the evolution of economic expansion, poverty and income distribution was also based on these insights. It analyzed statistics from the economy collected by the National Statistical Office to identify the timing of changes in the Thai economy. In the case of the poorest region of the Northeast, we have to discuss all factors related to poverty at both the micro and macro levels in order to understand the fundamentals and map out remedial measures.

Amid the current economic crisis, it is important to know how many laid-off urban workers have re-migrated to rural areas. What is the proportion of returning workers to local residents? To examine the correlation between the standard of living of the poorest group in a village and that of the whole village, a set of indicators on poverty incidence would have to be identified. A better understanding of the current situation is a precondition for developing measures to alleviate poverty and enhance productivity. Regarding John Middleton's presentation, I agree that privatization of public universities should be considered. The World Bank may be able to help in this regard.

John Middleton, however, did not discuss alternatives to full privatization and the independence of public universities. The government could still participate in the provision of public goods, by conducting research in areas that are not commercially viable, for example. Provision of public goods is the main rationale for government to retain its role in universities, implying that part of them would still be operated or financed by the state. Restructuring operating costs in the provision of education, especially at the university level, is a key concern. Public universities will never be able to offer top-quality courses if students pay only 10% of total costs subsidized by the national budget. As a result, students should bear a greater burden of the costs so that they will have the incentive to improve their performance. Lecturers should also receive higher remuneration and thus better lecturers could be recruited.

To move in this direction, a deferred payment system could be applied in Thailand. The government would advance education expenses for students that students would repay after finding employment. Australia initiated such a program, which relates repayment to the beneficiaries’ future earning capacity.
Chairperson: Sippanondha Ketudat, NESDB

From my experience with both public and private universities, I find private university administration more efficient than that of public universities due to their relative autonomy. Thai private universities, however, are still under some degree of control from the Ministry of University Affairs. If the Ministry deregulates and liberalizes, private universities shall become much more effective.

All educational institutions at the university level in Thailand, representing some 630 institutions nationwide, could be upgraded as universities. This cannot be done in the very near term, however, due to budget constraints. For these purposes, university education should be categorized into 3 sub-systems:

1. Research-oriented institutions
2. Institutions providing undergraduate studies, comprising approximately 100 institutions
3. Institutions providing short training courses, comprising 200 to 300 institutions

This measure would help solicit support from both the public and private sectors, as well as the community at large.

Currently, Thailand produces 100,000 graduates with bachelor degrees each year. Prior to the economic crisis, this number would have been expected to grow by 8 percent per year. Each year, approximately 10,000 students graduate with Master's degrees. These figures are growing at a rate of approximately 13 to 14 percent per year. In addition, one hundred Ph.D. students graduate in Thailand each year. A main concern is whether these rates are sustainable. We need more Ph.D. graduates to cope with critical problems. Within the next 5 years, 250 to 300 lecturers will retire, most of them highly experienced and holding Ph.D.s. Faced with the economic crisis, the country cannot afford the cost of scholarships for overseas studies. As a result, we must upgrade the capability of universities to offer more doctoral programs.

In these endeavors, financing is the main obstacle, requiring cooperation from both public and private sources. Until now, we have lacked financial resources, as well as the political will and commitment to solve national problems in education. Current discussions with the World Bank and the ADB in this area provide an opportunity to develop the country's education and training in a sustainable manner.
Sippanondha Ketudat, NESDB

This conference has provided a good opportunity to take stock of various aspects of Thailand’s economy affected by the present financial crisis. The discussions raised many possible approaches for addressing the problems we now face. The questions that remain make the extent and severity of current problems even clearer. The present financial crisis has irrefutably had a negative impact on the real sector, and on people from all segments of society, while the economy at large has suffered from sustained hardships. At the same time, the need to further study the extent and repercussions of international capital flows has become clear. An in depth understanding of the global economy is essential in preventing future 'financial typhoons'.

As we close the conference, two main topics should be pursued further: (i) policy issues; and (ii) ongoing operational processes.

**Policy Issues.** Results from this study will be translated into policies and measures for restructuring the economy and upgrading international competitiveness in Thailand by the Economic Restructuring and Competitiveness Committee under the supervision of Deputy Prime Minister Supachai Panitchpakdi.

Conclusions from the seminar will be raised for consideration by NESDB, which will also draft suggestions for the Industrial Restructuring Committee, chaired by Deputy Prime Minister Suvit Kunkitti. Under this committee, Khun Somphop Amatayakul, Advisor to the Ministry of Industry, is currently preparing the Industrial Restructuring Master Plan. In this context, analysis is being conducted on the restructuring of Thai industry, focusing on 13 major sectors. This analysis, based on the past 40 years’ experience, will examine bottlenecks and priorities for restructuring. Conclusions from this meeting will contribute to Khun Somphob’s work.

**On-going Operational Processes.** A number of issues raised in the seminar concern the White Paper on Strengthening Thailand’s Competitiveness from 1995. These issues will be submitted for consideration to the Restructuring and Competitiveness Committee chaired by Deputy Prime Minister Supachai Panitchpakdi. Revisions are likely to be made in three areas, namely information services, governance and tax restructuring. Today's exchange of ideas will also be summarized and published. Furthermore, the ideas expressed here could serve as a starting point for studies in other countries currently encountering similar problems.
## LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>ASEAN</td>
<td>Association of South East Asian Nations</td>
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<td>BAAC</td>
<td>Bank for Agriculture and Agricultural Cooperatives</td>
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<td>BIBF</td>
<td>Bangkok International Banking Facility</td>
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<td>BIS</td>
<td>Bank for International Settlement</td>
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<td>BMZ</td>
<td>German Ministry of Economic Development and Cooperation</td>
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<td>BOI</td>
<td>Board of Investment</td>
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<td>BOT</td>
<td>Bank of Thailand</td>
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<tr>
<td>CAT</td>
<td>Communication Authority of Thailand</td>
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<tr>
<td>CEO</td>
<td>Chief Executive Officer</td>
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<td>CIDA</td>
<td>Canadian International Development Agency</td>
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<td>DEG</td>
<td>German Investment and Development Company</td>
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<td>DvP</td>
<td>Delivery versus Payment</td>
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<td>EGAT</td>
<td>Electricity Generating Authority of Thailand</td>
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<td>ETO</td>
<td>Express Transportation Organization</td>
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<td>EU</td>
<td>European Union</td>
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<td>EXIM Bank</td>
<td>Export Import Bank</td>
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<td>FDI</td>
<td>Foreign Direct Investment</td>
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<tr>
<td>FIDF</td>
<td>Financial Institutions Development Fund</td>
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<tr>
<td>FPSI</td>
<td>Finance, Private Sector, and Infrastructure Network</td>
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<td>FRA</td>
<td>Financial Sector Restructuring Authority</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GIS</td>
<td>Geographic Information System</td>
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<td>IFC</td>
<td>International Finance Corporation</td>
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<td>IFCT</td>
<td>Industrial Financial Corporation of Thailand</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>IPP</td>
<td>Independent Power Producers</td>
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<td>ITRI</td>
<td>Industrial Technology Research Institute</td>
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<td>JDB</td>
<td>Japanese Development Bank</td>
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<td>MIC</td>
<td>Management Information Center</td>
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<td>MNC</td>
<td>Multinational Company</td>
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<td>MOI</td>
<td>Ministry of Industry</td>
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<td>Abbreviation</td>
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<tr>
<td>HRD</td>
<td>Human Resource Development</td>
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<td>ICOR</td>
<td>Incremental Capital Output Ratio of Investment</td>
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<td>IEAT</td>
<td>Industrial Estate Authority of Thailand</td>
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<td>MRR</td>
<td>minimum retail rates</td>
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<td>NAFTA</td>
<td>North American Free Trade Agreement</td>
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<td>NBFI</td>
<td>non-bank financial institution</td>
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<td>NESDB</td>
<td>Office of the National Economic and Social Development Board</td>
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<td>NPL</td>
<td>Non Performing Loan</td>
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<td>NSO</td>
<td>National Statistics Office</td>
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<td>OECD</td>
<td>Organization for Economic Cooperation and Development</td>
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<td>OECF</td>
<td>Overseas Economic Cooperation Fund</td>
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<td>PCG</td>
<td>Production credit groups</td>
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<td>PREM</td>
<td>Poverty Reduction and Economic Management</td>
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<td>PTT</td>
<td>Petroleum Authority of Thailand</td>
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<tr>
<td>R&amp;D</td>
<td>Research and Development</td>
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<td>S&amp;T</td>
<td>Science and Technology</td>
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<tr>
<td>SEC</td>
<td>Securities and Exchange Commission</td>
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<td>SES</td>
<td>Socio-Economic Survey</td>
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<td>SET</td>
<td>Stock Exchange of Thailand</td>
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<td>SME</td>
<td>small and medium-sized enterprise</td>
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<td>SRO</td>
<td>self-regulatory agencies</td>
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<tr>
<td>TDRI</td>
<td>Thailand Development Research Institute</td>
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<td>TEI</td>
<td>Thailand Environment Institute</td>
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<td>TIMSS</td>
<td>Third International Math and Science Study</td>
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<td>TOT</td>
<td>Telephone Organization of Thailand</td>
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<tr>
<td>WTO</td>
<td>World Trade Organization</td>
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