



TDRI

Quarterly NEWSLETTER

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The Role of Thai Government in Economic Development

by Virabongsa Ramangkura and Pakorn Vichyanond

Ordinarily, governments have distinct roles to play along the course of economic development, especially in developing countries. In this context, Thailand is no exception. At present, though the country has adopted a rather free-market and price-oriented mechanism of operation, market intervening measures as conducted by the Thai government still remain. And chances are extremely likely that they will persist within the foreseeable future. So it is worth casting a brief scan through the roles of Thai government in retrospect.

One notable feature of the evolution of Thai government's role in the past is that drastic or abrupt changes are always disfavored. During the early period of the 19th century Thai government monopolized all foreign trade activities and exerted stringent controls plus regulations upon most significant economic undertakings. That scenario prevailed until the Bowring Treaty was agreed upon between the British and Thai governments in 1856. Such Treaty represented a crucial bench mark because it obligated Thailand to open up its economy to free trade and systematic schemes of taxation. And all economic monopolies or dictatorships as commanded by the government were to be finally abolished. From that point onward, it can be easily observed that Thai government has gradually diluted the extent of its absolute control within its economy.

As mentioned earlier, an abrupt and drastic switch of government's economic policies is normally not expected in Thailand. Therefore, it is not surprising to discover that despite the introduction of free market mechanisms, Thai government cannot help intervening with

market forces. That was especially so in the midst of the Second World War under the regime of Field Marshall Pibulsonggram. Nationalism was then vehemently promoted via propaganda that Thai people should be liberated from the powerful realm of influential Chinese expatriates. After the War similar endeavors were further pursued but this time the quoted underlying rationale was the upgrading of the general public's social welfare. Examples of government interventions at that time were plentiful, ranging from rice procurement to mining enterprises, sales of certain consumer goods, and a multiple exchange rate system.

Those excessive economic interventions undertaken by Thai government gave rise to numerous failures. Subsequently, roles of the government were therefore pared down. And the diminution became quite evident when there was an important political turnover in 1957. Once the First Five-year National Economic and Social Development Plan went into effect in 1961, it was even announced officially and explicitly that the government would fully advocate market mechanisms and undertakings of private parties. Such direction of economic policies has continuously prevailed up until now.

Two main reasons for strengthening the roles of market forces and private entities are that flexibility is to be preserved so that errors can be rectified by lessons from past experiences and that the country is so open and increasingly dependent upon trade that adequate competitiveness has to be continually upheld.

Agricultural sector

Presently, the gross size of national income arising directly from Thai agricultural activities may not signify the true essence or significance of the agricultural sector in the Thai economy

This article is based on an address given by Dr. Virabongsa Ramangkura to the ADB Round Table in August, 1987. Dr. Virabongsa is the Director (and Dr. Pakorn Vichyanond is a Research Fellow) of the Macroeconomic Policy Program at TDRI.

since it adds up to only a quarter of GDP. However, if downstream or related activities and by-products of agriculture are wholly taken into account, which include food processing, freights, financing, and trading, it is certainly unquestionable that the country currently cannot do without agriculture.

Given a fairly high degree of farmers' sensitivity to economic incentives and responses thereto, the Thai agricultural sector has thrived quite healthily regarding the extent of diversification and production progresses, be it in crops, livestock, fisheries, etc. This can be immediately testified by Thai competitiveness already attained in the world market despite the fact that efficiency of land utilization has not reached its peak yet. And the remaining dualistic character of Thai agriculture ought not to be ignored. That is, while advanced regions are well accommodated by irrigation facilities, regions lagging behind count very much upon being adequately rain fed.

Progress achieved thus far in this segment of the economy are equally attributed to attempts of the government and private sectors. Both seem to be well aware of, and upkeep/fulfil, their responsibilities and jurisdiction. On the part of the government, serious attention and fruitful efforts have been directed to the provision of necessary infrastructures such as highway networks, transportation and communication systems. These infrastructures give producers access to both local and foreign markets for their products. At present it could be claimed that Thailand is among the front runners in Asia regarding the efficacy of transportation circuits within the country and linkages with its foreign outlets.

The second outstanding success of governmental tasks is the investment in and maintenance of irrigation facilities. These facilities have contributed appreciably to productivity of agricultural activities. Nevertheless, they need to be further expanded and ameliorated so as to raise the relative rate of water utilization given the present status in which only 15-20% of all agricultural areas are accommodated by irrigation systems. Another commendable group of policy actions pursued by the

government is on introducing new technology to the agricultural sector. It is largely due to technological advancements that Thailand can now command the food surplus position in most items covering not only traditional rice and maize but also poultry, cattle, pigs, sugar, aqua-cultured and marine products, fruits, and vegetables. Abundant examples of those technological advancements are the following: variations of seeds, livestock breeding, regional fisheries, extension services, utilization of fertilizers and insecticides.

On the part of the private sector, substantial investments have been so properly placed that the nation's processing capacity for agricultural products is considerably enhanced. End points of those investments are, for example, rice mills, factories processing sugar, rubber sheets, block rubber, and animal feeds. One reputable feature in agriculture accomplished by private Thai entrepreneurs is the marketing system, now the most efficient among Asian primary producing countries. Such assertion can be supported by the lowest marketing costs as ratified by the FAO.

Exports of agricultural products are another piece of evidence certifying the capability and achievements of the private entities. That is so because almost all agricultural exports, except a small portion of rice, are now handled by private traders. And they have already captured extensive markets around the world.

One extremely important core of agricultural production that deserves strong mentioning is its financial credit system. Even though the general commercial banking practices in Thailand, which are always privately run, have flourished well, most commercial banks have not attained adequate expertise in extending agricultural credits. This can be firmly substantiated by the fact that various banks severely and repetitively suffered from loan losses and problematic credits extended to rural agricultural activities while numerous farmers, especially the ones in remote areas, repeatedly complained about their lack of access to bank credits. These complaints went further: that such lack necessitated them to depend too much on unorganized money lenders whose interest

charges were painfully exorbitant. In this regard, the government has been highly successful in the establishment and functioning of the Bank for Agriculture and Agricultural Cooperatives (BAAC). The nationwide network of evenly scattered BAAC offices has provided a large number of farmers with access to credits of reasonable amounts. Moreover, a good portion of these credits is available on concessional terms. This demonstrates another effective market intervention as adopted by the government.

Industrial sector

Industry is the sector about which there have been recurrent debates as to what extent the Thai government has achieved in its role as a promoter ever since the official commencement of the investment promotion scheme in 1960. The industrial sector grew faster than the agricultural sector on a continual basis. Simultaneously, this fast-growing sector also enjoyed various promotional privileges as well as protection. Some industries were able to upgrade themselves shifting from an import-substituting phase into an exporting phase. Examples of these quick learners are textile, garments, ceramics, food processing, and electrical appliances. Other industries could not free themselves from protection, such as automobiles and chemical products.

As stated earlier, the first phase of industrialization in Thailand after the Second World War saw state companies attempting to start the operations of numerous new industries, such as canned food, tannery, fertilizer, battery, glass, sugar, paper, liquor, and matches. But they could hardly survive over the long run in the presence of subsequent competition from private corporations.

Currently, vigorous disputes still prevail as to what are generally accepted as proper roles of the government in industrial development. At one end, it is believed that the government should predominate the investment scenario in basic heavy industries such as those in petrochemicals, fertilizers, and metal. Intervention methodologies range from joint-venture investment to

socio-political urges and construction of large-sized infrastructure facilities such as those experienced abroad. On the contrary, critics at the other end favor a rather conservative approach in which the government should leave crucial decision making as the primary responsibility of private entrepreneurs. In other words, the government ought to restrict itself to only tasks of promotion or encouragement, neither urging nor compelling. Only after affirmative decisions on investment have been selected or firm commitments made by private entities and it is certain that existing infrastructure facilities are unequivocally insufficient, then should the government step in and interact by pursuing complementary investment projects. This approach is in sharp contrast with the earlier one in which government's investment is to occur beforehand, or following the principle of "supply creates its own demand." Supporters of the conservative approach or "supply follows demand" give caution that too much lead could result in wrong decisions and aiming at "white elephants", such as the perilous path recently selected by several ambitious developing debtor countries. This widespread dispute about appropriate roles of government in industrial development remains unsettled. Therefore, the present government now handles most situations on a case-by-case basis which used to be opted in the past and proves to be one reliable strategy.

Transportation and communication

Up until now Thailand has achieved considerable success in developing its transportation and telecommunication systems. Transportation started by means of railways and streams. Railway enterprise used to prosper to a great extent prior to the Second World War. But it has been mostly superseded by highway networks which have had broader and stronger impact upon agriculture, industries, commerce, and banking.

By and large, the government pursues construction and maintenance of highway and street systems. It can already be asserted that almost every village within the country now has access to inter-connected highways. Therefore, lorries,

trucks, and pickups are available for transferring commodities and equipment or machinery to all parts of the nation. While the government assumes the responsibility of upkeeping highways and streets, private companies manage transportation services. These companies possess plentiful trucks of all sizes and competition among them is fairly keen resulting in rather low profit margins. This must have contributed very much to the earlier-mentioned lowest marketing cost in Thailand among most primary producing countries.

As for post, telephone, and telecommunication, the government handles the market via state enterprises. So far, telephone services spawn acute criticisms in several respects, such as availability and below-standard quality. The responsible Telephone Organization of Thailand has encountered both severe financial and administrative problems. It is thus seeking more effective means.

Financial system and its stability

The government, via its Ministry of Finance and the Bank of Thailand, has been quite energetic, discreet, and constantly vigilant about the development and stability of the country's financial system. After the Second World War the government intervened in the financial market to a greater extent and frequency than in other economic sectors. For instance, restrictive foreign exchange control measures and a multiple exchange rate system were temporarily adopted in the past. And even though commercial banks had been in operation already, their systems were not fully developed and their provincial branches were too thinly scattered. That was the primary reason why the government set up the Government Savings Bank (GSB). GSB's functions are to attract deposits and to use such deposits in funding parts of government fiscal deficits. The growth and popularity of GSB was more than satisfactory as suggested by colossal deposits captured by GSB branches which have mushroomed around the country at a faster pace than branches of any commercial bank.

In the postwar period the government exerted its full efforts at various

means in order to develop the commercial banking system. Examples of those endeavors were tax exemption on interest income earned from banking deposits, and deposit protection by government's taking over ailing banks. It is thus not surprising to detect dramatic growth of commercial banking businesses in the 1960s and 1970s in all respects including types of services, volumes of deposits and credits, number of branches, and connections with international money as well as capital markets.

Financial and fiscal disciplines represent very prominent and long-lasting fruits carefully fabricated by the Finance Ministry and the Central Bank. These two agencies encouraged the government to set proper rules of conduct upon itself. The following will illustrate some of these disciplines. Annual fiscal deficits cannot exceed 20% of that year's fiscal appropriations. While external debt commitments of the government each year are not to go beyond 10% of fiscal appropriations, prudent debt management strategy requires further that public debt service ratio be continually maintained within 9% of export earnings and any fiscal borrowing be executed solely for the purpose of covering investment, not current or operational, expenditures. In addition, neither the government nor state enterprises are allowed to extend guarantee to debt obligations of any private entities. Such prohibition helps avoid adverse loopholes and misuses of borrowed funds. It also complements discreet management of the public debt profile. On the monetary side, the level of the country's international reserves has been given top priority for security and stability objectives. For example, domestic legal codes require that international reserves of the country, comprising gold and foreign exchange in prominent currencies, be maintained by at least 60 per cent of local banknotes in circulation at all times. That was why the exchange rate policy of pegging the local baht currency with the US dollar could be steadily upheld for roughly 40 years around 19-20 baht per US dollar. It was only recently, under the international atmosphere of highly volatile exchange rate fluctuations, that the government deemed it appropriate to peg the baht with

a basket of currencies resulting in the exchange rate of 25-27 baht per US dollar since the end of 1984 until now.

The well-preserved stability within the financial and exchange rate system, as nurtured by the Thai financial authority, has assisted the development of the country's foreign trade and investment to a large extent. Clear-cut evidence of the contribution from exchange rate policy is the drastic decline in foreign trade deficits in 1986 to such an extent that Thailand captured current account surplus for the first time in decades. This golden era coincides with fruitful production of energy resources from the Gulf of Thailand. At the same time, voluminous flows of capital have been transacted without any notable disruption. These flows simultaneously supplement the functioning of domestic financial institutions.

Despite countless rounds of debates regarding the optimal degree of competition or market forces that the government should allow within local financial and capital markets, the propensity has been quite high that moderately liberal market mechanisms are likely to be permitted to prevail. And although at times in the recent past severe competition may have given rise to financial difficulties and a small number of ailing financial firms/banks, the authority stepped in and extended several aspects of assistance so as to preserve the public's confidence and faith in its financial system's stability.

On the institutional front, performances of the Bank for Agriculture and Agricultural Cooperatives and the Industrial Finance Corporation of Thailand have been definitely remarkable. As for the Securities Exchange of Thailand, in spite of sullen experiences during the first decade of its operation, the second decade began with lively stamina after important legal stumbling blocks were dismantled. Yet, the government still feels certain tasks are ahead to be fulfilled in developing local capital markets further and encouraging innovations of long-term savings instruments.

Other public utilities

Most works on public utilities were initiated and kept up by the government including electricity, waterworks, rail-

ways, and telecommunication. The Bangkok Mass Transit Authority was the only undertaking having belonged to a number of private companies prior to being transferred to a status of state enterprise. It has been widely contested that state enterprises' efficiency and quality in operating public utilities are highly questionable, and various alternatives have been suggested -- such as privatization.

Ever since the 1960s or the beginning of the First Five-year Plan, the Thai government stated perspicuously that expansion of state enterprises' territory be halted at the earliest time. In addition, the private economic activities that are granted official promotion from the government are all certified against being nationalized. Moreover, once they are in operation, they are assured that the government will never undertake any measure or similar business that will engender potentially hazardous competition to promoted private firms, or place them in precarious positions. The aforementioned directive of the government is further sharpened in the Fifth and Sixth Five-year Plans. In other words, the government is aiming at diminishing roles of state enterprises and replacing them with private entities both at the stages of operation and investment as well.

Rural development and poverty eradication

Notwithstanding the substantial degree of successful economic development that the country has achieved, a good fraction of the general public have not been able to derive much benefits therefrom. The majority of these particular people reside in poor rural regions. The crucial reason for their poverty is the low productivity of their land and its vicinities. Most of these low-standard areas are located in the North and the Northeast which are highly elevated and thus barely reachable with respect to irrigation facilities.

Those poor people have been quite responsive to economic opportunities. This can be immediately verified by the existing rate of labor migration. For instance, it is not surprising to discover former northeastern farmers now participating in Chinese opera performances, or serving as fishermen's crews,

or tapping rubber in the South, or applying for construction jobs in the Middle East. With regard to these labor migrations, the government has tried its best in providing facilitating and safety services.

In regard to the immovable poor, the government promulgated a series of rural development programs. The objectives are to uplift life quality, to enable peasants to help themselves, to provide fundamental services (e.g., health care, education, access to water sources and storages), and to strengthen rural community cooperatives and organizations.

Rural development projects are strenuously demanding in terms of time, money, and endurance. These costs have always been taken into account. Therefore, the effected projects tended to be the ones in only resourceful regions. Should one demarcate agricultural areas into the forward and backward zones as mentioned at the very beginning, it would definitely help the implementation of properly scattered rural development programs so as to bring forth targeted equity and better quality of life.

Conclusive remarks and future trends

By and large, Thailand has attained a good degree of financial stability, and optimally adjusted its economic profile in the midst of lengthy and multifaceted global crises. These recent crises, for example, plunging oil prices, exchange rate fluctuations, and external debt predicaments, prove to be vividly painful to numerous developing countries, especially the heavily debt-strapped ones. In contrast, Thailand could sail through global crises without any blink of exigency due to a few central reasons as follows.

Firstly, the country commands superior comparative advantage to other primary producers in terms of agricultural resources, production efficiency, and downstream processing facilities.

Secondly, the government has timely adopted essential and proper intervening measures so that local producers and traders can successfully cope with dynamism, which has now become common in all matters. Two clear-cut examples of such measures are flexible interest rates and the daily basket-pegged exchange rate policy.

Finally, neither the government nor private entities have committed them-

selves to excessive external debt or erroneous large-scale project obligations such as the ones that have dangerously enticed several developing countries in Latin America and sub-Saharan Africa in the late 1970s. In other words, Thai policy-makers are well aware of the complexity and interrelationship of macroeconomic problems. They thus exert extreme prudence in exercising their authority.

In summary, the government allows private entities to play leading roles and make decisions upon economic investment. Nevertheless, the authority is hardly negligent as it focuses its efforts at providing necessary infrastructure, public services, and fundamental accommodations. Quality improvement is also emphasized as it is widely accepted that service quality counts heavily along the attempt of minimizing costs in the course of industrialization. Other facets of accommodative arrangements that receive adequate attention from the government are the following: efficacious transportation and telecommunication, commercial port facilities, efficient bureaucratic systems, and effective investment-plus-trade services. One truly indispensable prerequisite of successful economic development that the Thai government has constantly monitored and strived to achieve is stability in the financial system and exchange rate regime. Such stability definitely facilitates not only institutional developments but also the sound growth path of the economy.

Within the foreseeable future, roles of Thai government in economic development have become increasingly distinct. The government aims at strengthening the market mechanism and roles of private parties. Simultaneously, it will continue relevant tasks of investment promotion as well as accommodative services. These include financial stability and developments of efficient money/capital markets as well, since they will help enable Thailand to fare well in currently volatile external environments and help widen prospective economic opportunities.

In short, the government's roles are on the rise. But their direction is tilted towards accommodative ends and maintenance of stability in the broad socio-politico-economic context.

COMMENTARY

Quality : The Key to TDRI's Success



" First of all, I would like to make it clear that what I say are my own personal views. All policies of the institute have to be approved by the Trustees and the Board. What I say could be modified by (1) the views of my colleagues, because with the high caliber of researchers at TDRI, most of the important decisions will have to be made collectively, and (2) the views of the Council and the Board. So, with this understanding, I would be happy to discuss my views on TDRI.

On TDRI's Accomplishments

The first period up to now has been a time of initial institutional building. As far as the next period is concerned--the next two to three years--this process of institutional building will have to continue because we are a very young institution; however, this next period must also be a period of *consolidation*. We have to ensure that whatever gains we have made in the first two and a half years will become permanent qualities of the institute.

The most remarkable thing about this institute, from my point of view, is the success of our Chairman of the Board, Dr. Snoh and our first President, Dr. Anat, in attracting the number and caliber of researchers that we now have. I think this probably is TDRI's greatest achievement. In an institution like

Dr. Phaichitr Uathavikul, TDRI's new President, speaks with the Editor about TDRI's accomplishments, expected changes, and institutional development.

this, it is the human resources which are most important. Of course, we are also fortunate in that we have been provided with an excellent working environment.

I also think the informal administrative structure is a great help. Most academic or professional people would be at ease in this type of environment. If it is too bureaucratic, I think they would feel constrained. All these good things, I hope to continue.

Expected Changes

On the whole I don't really expect that there will be many changes--because I think my predecessor has set the institute on a very reasonable course.

(1) Quality Control

When I talk about consolidation, I mean, first, putting quality control on a firm basis. We have had pretty good quality control over the past two and a half years, but it is still rather informal in nature. I think we need to institutionalize this. Not by means of bureaucracy, I think that this would be the death of the institute, but in a more simplified manner.

Let me give you an example to make it clearer. We have been engaged in quality control in the sense that after a project has been going on for some time, there will be interim reports on the preliminary work. We always try to organize workshops where we invite peer groups for their assessment of our work. This is a mechanism for outside participants to take a good look at what we are doing and tell us whether we are doing things right or not. At the final report stage we also organize workshops, but these measures are rather informal. It's not really a requirement of the

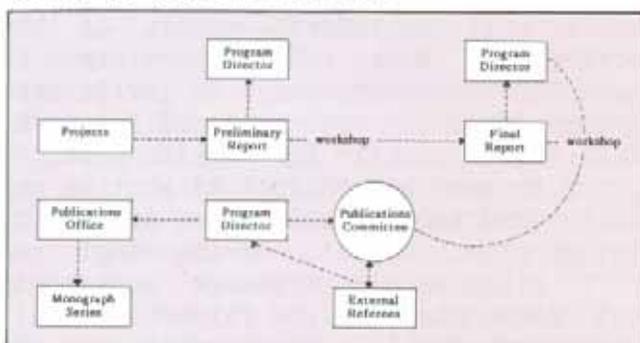
institute but program directors have been doing this because they want the input. So, when I say we need consolidation, it's just a matter of making it a routine practice.

One thing which is gravely missing in our case is a formal evaluation. The best thing to do, in my view, is to ensure that we have a good publications program. It's not really up to us to say whether our research work is good or not; it's up to our peer group to make that assessment. The only way you can really do it efficiently is through a good publications program. We have thought quite deeply about this problem, and I think it is now time for action.

(2) Publications Program

For the moment, I would like to concentrate on a series of research monographs which hopefully will be of international standards. The quarterly newsletters are very useful and will be continued. I think they can be made somewhat more substantive in the sense that research outputs could be covered in more detail, but the format is good. We will discontinue the monthly "News Brief". We want to concentrate on the things that are really important to the institute--that is, the research.

The action that has been taken so far is that I have reconstituted the Publications Committee. I have made myself the chairman because I think it very important that the president be chairman, because the Committee must be able to act in a decisive manner should the need arise. The program directors will serve as members. The first order of business is for the program directors to submit the existing research reports that they think are worth publishing. We have set up the procedure for doing this, as outlined below.



What we have done is to make the program director the most important actor. Essentially, we have routinized the practice of holding workshops to assess research output. After the second workshop and in addition to the final reports, the output should be in fairly good shape. The next step is to determine whether the output is publishable or not. If it is not, what revisions will need to be made to render it publishable? Here the Publications Committee will act almost as an advisor. But it will be slightly more than an advisor, because if there is need to twist some arms, then that is what I will have to do as the chairman of the committee. The key element here is 'external referees'. It is not really up to us to judge our own work; it should be our peer groups that do this.

As far as external referees are concerned, in our experience, this is the weakest link in the whole chain, because it is very difficult to find a good referee, not because we don't have the people, but the people we have don't take their work very seriously. It may take them six to nine months or longer, and it is always a painful experience to try and get the reports back. So in the initial stage, we will try to interest HIID (Harvard Institute for International Development) to cooperate with us. They have been in this game much longer than we have and they have all kinds of contacts. If they agree, we would send them the bulk of our material and they will try to find international referees for us. Eventually we will have to develop our own capability here.

Now after the external referee, the program director will have to decide what revisions need to be made. After that, the document will go to the publications office which will be beefed up considerably. There will be a chief editor, an associate editor, and a production person in the beginning. We expect to make use of our own printing facilities, and I understand there is a fairly firm agreement about obtaining hardware for the program.

I have put this matter as a top priority because I think this is the most critical element in terms of quality control. Up to now, we don't really

know what kind of outputs we have -- nobody knows. After we have been through this exercise, then everybody will know, and I think we are ready to stand or fall on this. There is no other way. If the institution is going to survive, then it must demonstrate that it can produce quality work and this is the way to demonstrate it.

This situation is quite simple. We have been in operation for almost three years. We have accumulated a stock of research output, some of which I think is of pretty good quality. Now, we just let the light in and see what happens. We cannot delay this any longer.

(3) Direction

Another area in which we need consolidation is in working out collectively a clear direction of where the institute will be going for the next few years in terms of research work. In the first period, because it was a start-up situation, it was inevitable that a clear cut direction was not really possible because each program had to try to find projects and get something going from nothing. Consolidation was not really needed then--it was a matter of getting things started, getting things going, and I think we have achieved reasonable success. We have to consolidate in the sense of pulling all the programs together into some fairly well defined direction. This obviously is a collective endeavor in which we can depend on the views and the direction of the program directors. This is something which will need to be done in the near future.

(4) Long-term Policy Analysis

A fourth area in terms of priority, and this is actually related to the third area, is to firmly establish the content of research. What I personally would like to see is that we concentrate on long-term policy analysis. Of course, we will do some short-term projects, but the emphasis should be on long-term policies. The reason is that many government units are involved in short-term policy work, but very few are really engaged in long-term policy analysis. That is where the need and requirement lies, and I think in terms of

comparative advantage, we have some advantage in longer-term policy research.

Also, I would like to see the policy content directly linked to the needs and requirements of society, especially the majority of the people and the disadvantaged. This is another way of saying that I would like to see a high degree of social content in our research activities. We want to do good work technically, but it should not be good work only in terms of the techniques or professional quality. The professional capacity should be directed at issues that are of critical importance to the country. And, as you know, in this country we still have a great many problems concerning poverty, disadvantaged classes, rural income inequities, and so on. So I hope that through our efforts some better understanding of these problems could be evolved and then its up to the government to make use of any of these insights or knowledge.

(5) Institutional Cooperation

A fifth area which I think is extremely important given the nature of this institute, is the need for us to develop some concrete long-term institutional cooperation with other research units, both with universities, the public sector at large, and the private sector. There are some good research units in some of the major banks. There is even a forum of private economists of which I am a member. We want to pull all of this together, because there are quite a few good researchers in the country now -- along with a much larger number of young researchers who have the ability, but perhaps not the experience. I think it is very important that we try to bring these people into the process so that they can develop into highly qualified and experienced researchers in the future. I consider it a basic responsibility of the institute to help in the development of research capability in the country as a whole, and not just in its own operations.

TDRI is fortunate in that we have a sizable number of highly qualified, experienced researchers already, but that doesn't mean that we can stop there. It is our responsibility to involve as many promising young re-

searchers as possible. We have been doing this, but largely on an informal, individual basis. I think we need to take the next step of institutionalizing these relationships. The biggest problem in doing this is again, the problem of quality control. Once you farm out the research activities, how do you ensure quality control at a distance? This is a very difficult problem. But I think the way we will try and do it is to start small with pilot projects and tasks that can be handled easily. Then, if we are successful, we can consolidate and expand. It's not too difficult to pull together a research team and write a research report. And, if the proposal is any good, funding is not all that difficult. The real tough nut to crack here is quality control. You have to ensure that the output at the end of the day will be of acceptable standard.

These issues are all on the substantive side of the institute. I don't think I can end this interview without saying something about the administrative and financial side.

Finances

On the financial side, it is obvious that our top priority is to ensure the survival of the institution. So far we have managed to carry out a fairly respectable volume of research work which is totally self-financed. Most of the administrative costs are, however, still being born by the CIDA grant which will end in about two years time. So it is very important for us to ensure that after the grant ends, the institute can survive. Essentially, this would involve ensuring that we can earn enough from our sponsored research to cover more of the administrative expenses which, together with the establishment of a modest endowment fund, would ensure the long-term viability of the institute. We

have also been working on issues of cost effectiveness and developing a computerized cost control system. It will take some time because of the difficulty in setting norms, but these are the kind of things that will need to be consolidated.

Institutional Building

In terms of institutional building, there are some programs that are still not very active. This will have to be rectified. I have already started working with some of the programs. There have been meetings and discussions of how to get things going. On the whole I am rather optimistic: I think there are ways and means by which we can do this.

We are pushing hard for a building of our own, because we are paying quite a substantial rent every year. If we have a building, we can become much more cost effective.

We will have to continue to recruit bright young researchers. I think even after the short period of two and a half years, we have a fairly good reputation among researchers, and I think it's possible to attract good people.

We still need to expand. Although we don't envisage becoming a very large organization. In terms of size, we will get bigger, but not all that much. Our emphasis will be on quality. I much prefer to have a small quality outfit than a large one that may be mediocre. It's hard to tell what size will be optimum. If you ask me what size I want the institute to be, the answer is, I don't know. It depends very much on what happens, how things evolve, what kinds of policy areas we get in to, and I don't really think anyone has an honest answer. The only thing we can say is, we will have the size commensurate with the requirement. The emphasis is on quality. We will never sacrifice quality for growth."

Dr. Phaichitr Uathavikul assumed the role of the TDRI President and Chief Executive Officer on July 25, 1987. His assumption as President of TDRI came as the result of Dr. Anat Arbhabhira's appointment as the Governor of the Petroleum Authority of Thailand (PTT). Dr. Phaichitr's previous position with TDRI was as Project Advisor in the Management of Social and Economic Development Project. Formerly, Dr. Phaichitr was the Executive Director of the World Bank, Deputy Minister of Finance, Professor of Development Economics and Rector at NIDA, and Chairman of the Economic Advisory Committee to the Prime Minister, among others. Prime Minister, Prem Tinsulanonda has recently appointed Dr. Phaichitr as his new chief economic affairs adviser.

TDRI RESEARCH REVIEW

The Impact of High Business Tax Rates on Tax Evasion of Industry

The business tax in Thailand was introduced originally in the form of a multistage turnover tax. In 1961 its structure was changed to a single-stage manufacturing sales tax by removing the wholesale and retail stages from the tax net with an intention to facilitate the administration and mitigate the problem of double taxation. Despite this changeover, the cascade form of the business tax structure still prevails (Figure 1).

Several factors have attributed to the cascading elements. Firstly, the definition of traders in the business tax law implies that if the manufacturers purchase the various components from separate manufacturers, they will have to bear the business tax burden on the cost of each item, regardless of the final product or intermediate goods. As a matter of fact, the producers of different items might already have borne an element of business tax in the materials they themselves have used.

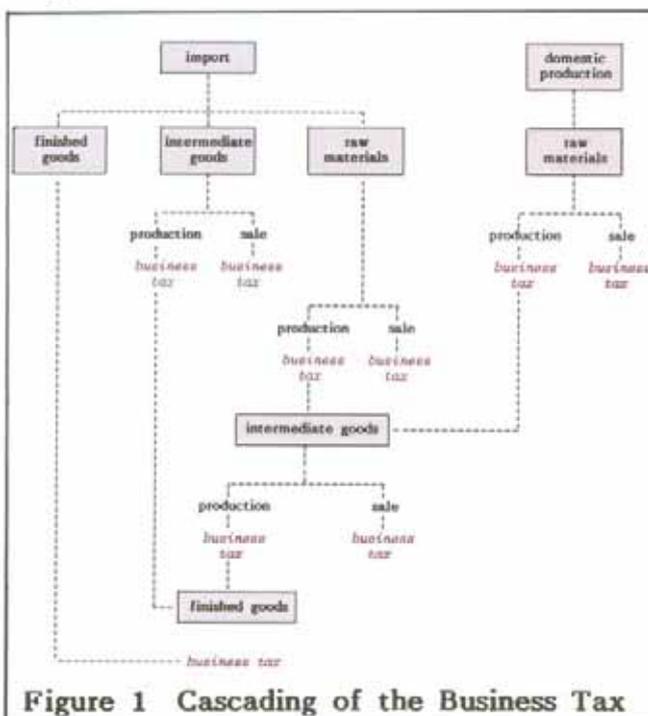


Figure 1 Cascading of the Business Tax

Secondly, the pattern of industry separating the stages of production into raw materials, intermediate products, and final goods further intensifies the cascading.

Thirdly, the definitions of "manufacture" and "gross receipts" in the Revenue Code are not consistent with the economic concept meanings. The cascading feature in the business tax has brought dangerous inherent economic and industrial implications for the economy. It hinders efficient industrial growth and tends to limit the expansion of export because of the associated higher costs. The result is, therefore, loss in efficiency in the use of resources in production, and deficits in the balance of trade.

Though measures to reduce the degree of these negative effects have been incorporated into the tax structure, their effectiveness is still questionable.

Estimates of the cascading tax rates and tax evasion

The degree of cascading for the economic units engaged in industrial undertakings varies depending upon the process of production, the type of manufactured goods, the goods bought from other manufacturers for use as inputs in the manufacturing and their associated business taxes.

The cascading analysis is based upon an input-output model representing the Thai economy. Essentially, the input-output model provides a framework for a static general equilibrium price determination wherein the cascading effects of the business tax can be identified. It serves the function of translating statutory tax rates into "cascading" tax rates. Thus, cascading effects reached under common assumptions for all industries represent cascading of various inputs in the process of production. The analysis covers the "horizontal" cascading as well as the "vertical" cascading for 180 sectors in the Thai economy.

It is found that the production in sectors 68 to 126 covering a number of intermediate and final goods have relatively high cascading tax rates. For instance, the iron and steel industry

which covers pig iron, ingot, ferro-silicon, ferro-manganese, and slag (by-product of pig iron) is subject to a cascading tax rate of 14.6 percent in spite of its statutory rate of 9.0 percent. Consequently, the industries using products of the iron and steel industry as their main inputs will have to bear a relatively high business tax burden. They are, for example, cutlery and hand tools; metal furniture and fixtures; structural metal products, and other fabricated metal products. The other industries with relatively high cascading tax rates are, for instance: office and household machinery and appliances; electrical industrial machinery and appliances; radio, television and communication equipment and apparatus; household electrical appliances; motor vehicles; and motor cycles (Table 1). The rates of business tax in Thailand, as measured by the cascading tax rates, are quite high as compared to those of the newly industrialized countries such as South Korea and Taiwan. The rates of general sales tax in South Korea and Taiwan are 10 and 5 percent of value added, respectively. And they are imposed on value added, not gross receipts. Obviously, the cascading elements do not exist because the form of general sales tax is the value-added tax.

With regard to the estimates of tax evasion, the Constant Tax Ratio Approach has been utilized. The results of the findings are that business tax evasion ranges from as low as 89 million baht or

0.8 percent of total business tax collection in 1977 to as high as 4,312 million baht or approximately 15 percent of total business tax revenue in 1986. Much of the evasion is found in the activities under Category 1 (Sale of Goods) accounting for more than 50 percent of the total tax evasion, particularly in the groups of businesses subject to tax rates of 7 and 1.5 percent. Within the industries under the 1.5 percent rate, the cascading tax rates for most sectors are not relatively high as compared to the statutory tax rates. They are, for instance, wooden furniture and fixtures, paper and paperboard products, and rubber products. In contrast, numerous industries subject to the 7 percent rate (the present rate being 9 percent) such as metal furniture and fixtures, structural metal products, radio, television and communication equipment apparatus, and household electrical appliances have relatively high cascading tax rates.

Business tax as a source of government revenue

Over the past decade, the government revenue in Thailand remained within a narrow range of 12-14 percent of Gross Domestic Product. Tax revenue constituted the largest part of total government revenue, totalling approximately 90 percent. Non-tax revenue such as state enterprises' contributions, licenses and fees, and sales of goods and services formed only a minor proportion, of about 10 percent of total revenue.

The reliance indicators (the percentage share of a particular tax to total government revenue) reveal that taxes on domestic consumption (business tax and excise tax) rose from 45 to over 50 percent while the share of taxes on international trade (import and export duties) fell over time from 28 to 24 percent. As a result, the most important source of government revenue is domestic consumption taxes. During 1976-1986, the share of the business tax fluctuated around 21-24 percent while the share of excise tax varied from 20-28 percent of total government revenue. In the 1970s, the business tax was slightly more important than the excise tax in the overall structure. However,

Table 1 Selected Industries with Relatively High "Cascading" Tax Rates

Industry	(Unit:percent)	
	Statutory Tax Rate	"Cascading" Tax Rate
Iron	9.0	14.56
Secondary Steel Products	9.0	14.18
Cutlery and Hand Tools	9.0	13.58
Metal Furniture and Fixtures	9.0	13.65
Structural Metal Products	9.0	13.38
Office and Household Machinery and Appliances	9.0, 20.0	13.33, 24.34
Electrical Industrial Machinery and Appliances	5.0	8.34
Radio, Television and Communication Equipment and Apparatus	9.0	12.60
Household Electrical Appliances	9.0	13.19
Other Electrical Apparatus and Supplies	9.0	14.11
Motor Vehicles	9.0	13.31
Motor Cycles and Bicycles	9.0, 12.0	13.19, 16.19
Watches and Clocks	9.0, 20.0	17.09, 28.09
Recreational and Athletic Equipment	9.0	11.52
Other manufactured goods	9.0	12.48

since 1980 their roles have been reversed even though their importance in the tax structure as a whole remains intact. This is quite understandable. With the commercialization and modernization of the economy and with diversification of domestic production, sales and excise taxation would tend to gain at the expense of import and export duties.

To evaluate the government revenue performance, revenue buoyancy and elasticity of the business tax have been estimated. In the dynamic sense, these estimates could indicate the revenue performance in Thailand with respect to its economic development. In other words, they can reveal the ability of the government over a period of time in extracting part of the income growth so as to be able to finance its expenditure. Buoyancy and elasticity figures of the business tax -- where the former measures the response of a tax to changes in income in percentage terms including discretionary changes in tax rates, whereas the latter measures the automaticity of the tax to changes in income after removing the effects of discretionary changes -- are found to be 1.0444 and 0.9560, respectively. The buoyancy figure of above unity indicates that several discretionary measures in the recent past have increased business tax revenue. The elasticity figure of less-than-unity of the business tax, a significant component of total government revenue, reflects a major weakness in the revenue system. It clearly points in the direction of an urgent need for basic changes in the structure of the business tax. The poor performance of business tax can be attributed to the collection from sources of import and export. The business tax elasticity on domestic goods and services is 1.0156 while those on imports and exports are much lower, about 0.8659 and 0.5428 respectively. Accordingly, the government revenue from the business tax will continue to decline in the future relative to the growth of GDP. To avoid ad hoc changes, fundamental reform is needed to restructure the business tax so as to ensure that there is no unnecessary erosion in the tax base and to prevent tax evasion. An improvement in the elasticity of business tax is essen-

Development of the industrial sector, the fastest growing sector of the economy and the main stimulus of economic growth, cannot be achieved with the existing structure of the business tax.

tial from the viewpoint of the government revenue system so that the business tax must be capable of yielding adequate revenue automatically with an increase in national income.

Reform of the business tax

The general sales tax in the form of manufacturing sales tax has been implemented in Thailand for over 25 years. This structure of business tax might be appropriate with the economic circumstances in the past, but the structure of the Thai economy as well as the tax structure has changed considerably in the course of development. The structural shift is in favor of industry and services. The government relies less heavily on international trade taxes but is more dependent on taxes on domestic consumption. Accordingly, the business tax structure introduced in 1961 does not seem to be consistent with the present Thai economy considering several problems that could not be solved. They are, for instance, cascading effects, tax evasion, and low elasticity.

There is urgent need for reform of the business tax. Development of the industrial sector, the fastest growing sector of the economy and the main stimulus of economic growth, cannot be achieved with the existing structure of the business tax. Essential to this is a system of general sales tax capable of yielding adequate revenue, neutral in its burden, and simple to understand and administer. The case for a reform of the business tax is overwhelming. The following five points must be dealt with.

1. *The economic distortion in relation to domestic production.* The business tax lacks neutrality in relation to domestic competition and distorts the allocation of resources. It favors vertical integration and impedes the prospects of industrial development because of the cascading.

2. *The economic distortion in relation to international trade.* With re-

spect to exports of domestically-manufactured goods, the business tax tends to be biased against the competitiveness of domestic production in the world market. All the tax element is not refunded since the precise content of the business tax borne at earlier stages cannot be easily calculated with complete accuracy. On the other hand, if the uncertainty causes overrefunding and this is interpreted as an export subsidy by the countries importing the goods, it will result in disputes with trading partners and the exporting goods might be subject to countervailing duties.

With regard to imports, the business tax discriminates against imports by imposing higher rates on imports as compared with domestic product, generally 9 percent versus 1.5 percent. Thus the business tax is protective of domestic production. Ideally, the business tax should be neutral between domestic and imported goods, and that measure of protection should be provided for in the import tariff.

3. *The complexity of the business tax law.* The business tax law is extremely complicated, spread over a number of different legal provisions, the Revenue Code, various Royal Decrees, and several statutory instruments in the form of Ministerial Regulations, Director-General's notifications, Ministerial Instruction and Regulations, and Departmental Instruction and Regulations. Obviously, the business tax code is not simple for the businessman to understand and comply with.

4. *Scope for evasion.* The absence of the administration to issue receipts effectively, unreliable accounts of businesses, together with the uncertainty of the law that leaves room for interpretation, have afforded easy means for tax evasion.

5. *The low elasticity of the business tax revenue.* Revenue collection is a goal of business tax. But its low elasticity indicates that business tax revenue cannot keep pace with the growth of the Thai economy. Since the business tax is a significant component of total government revenue, changes to make it a more productive and elastic source of government revenue are essential.

Some defects of the business tax can be corrected within its existing frame-

From the viewpoint of practical feasibility, revenue collection, and economic implications, the value-added tax should be the optimal solution in the reform of the business tax in Thailand.

work. Some serious drawbacks such as cascading and economic distortions, however, cannot be eliminated as long as the business tax structure is based on the manufacturing sales tax. The most appropriate way in the medium and long-term seems to be the replacement of the manufacturing sales tax with a better one. Among various forms of sales tax, three of them are generally accepted as improvements of the business tax. They are wholesale sales tax, retail sales tax and value-added tax -- of which the last two can remove all the existing major shortcomings. From the viewpoint of practical feasibility, revenue collection, and economic implications, the value-added tax should be the optimal solution in the reform of the business tax in Thailand.

The value-added tax is levied on the value that is added to goods and services by enterprises at each stage of the production and distribution process. Therefore, it is possible for the government to keep the tax rate as low as possible, given the objectives of revenue and price stability. Ideally, there should be a single rate so as to avoid complexity in the administration and to maintain neutrality in the tax structure. A wide range of zero ratings on sales of certain goods and services, however, should be allowed. Under a zero rate system, there will be no output tax at the time of sale of goods and services and the input tax on purchases can be credited against the output tax, thereby resulting in the refund of all input tax. The business activities qualifying for the zero tax rate are exports of goods and services; international transportation; sales of machinery and equipment, raw materials, and semi-finished goods to enterprises located within tax-free zones such as bonded warehouses and export processing zones. As for investment goods, the credit should be effected by allowing a full credit for the tax borne by the goods in the period in which they were

acquired (the so-called consumption-type value-added tax) rather than by a *pro rata temporis* procedure under which the total credit is spread over the depreciable life of the assets involved. A significant advantage of the value-added tax is the cross-audit feature. Tax paid by one enterprise is reported as a deduction by the enterprises buying from the enterprise. This tax-credit feature emphasizes and simplifies cross-auditing and is likely to make firms more careful not to evade.

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Japanese Direct Investment and Technology Transfer to Thailand

by Paitoon Wiboonchutikula

Since the early 1970s, foreign investment has been a significant component of capital inflows necessary for financing the development of the Thai economy. The improved technology has also become an important source of growth. Thus, both investment and technology transfer from abroad could contribute substantially to the sustaining of growth and structural change of the country.

In the past two decades the two most important sources of foreign investment and technology transfer were the United States and Japan. Although Japanese investment is slightly less than that of the United States, it is highly concentrated in the industrial sector. This study surveys and updates studies on

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foreign investment and technology transfer specifically from Japan.

JAPANESE DIRECT INVESTMENT

Foreign direct investment in Thailand, particularly that in Board of Investment promoted industries, mostly takes the form of joint ventures with local equity participation. While the Multinational Corporations (MNCs) from the United States and Europe are more of 100 percent foreign owned or with a majority of foreign equity control, companies with Japanese investment are more of joint ownership or with a minority Japanese shareholding, and under the Board of Investment promotion.

In the past, the Board of Investment's policy was that joint ventures were preferred to complete foreign ownership although no strict requirements had been enforced. In recent years, the Board of Investment has been more lenient regarding ownership, especially for exporting firms where 100 percent foreign ownership is permitted.

Japanese joint-ventured firms under promotion mainly engage in manufacturing activities. They are predominant in terms of total number of firms and total investment, accounting for over 90 percent of the total number of firms or the total registered capital.

Capital intensity and scale

Japanese direct investment is often criticized because it is involved in capital-intensive industries, and the Japanese direct investment firms use more capital-intensive techniques than local firms in the same industries.

In order to test the claim stated above, it must be shown that there was more direct investment in the capital-intensive industries than in the labor-intensive industries. The results from the correlations were negative; yet, they could also be biased due to the heavy investment in two labor intensive industries, namely, the textile and garment industries. If these two industries were excluded, the rank correlation coefficients for 1960-81 and the early 1980s were about 0.45 and 0.52, respectively. Here the results did suggest that, excluding the textile and garment indus-

As there are no institutional mechanisms in the Thai government to screen, register, and monitor foreign direct investment and technology transfer, foreign investors are generally free to carry out business activities in Thailand.

tries, there was more Japanese investment in the capital-intensive industries than in the labor-intensive industries. The capital intensive industries with large Japanese investment were chemical and chemical products, nonelectrical machinery, and transport equipment. These industries are also usually larger in size and have lower exports/sales ratios than the rest of the industries. However, when comparing the capital intensity of the Japanese joint ventures with all other firms in the same industries, no evidence was found to conclude that Japanese firms used more capital-intensive techniques than the local ones did.

Local content

The BOI has always emphasized that the promotional priority should be given to firms and industries using a higher proportion of local raw materials. The data show that on the average for all industries, the local content for promoted Japanese direct investment firms was below 40 percent. Industries with low local content in their production are transport equipment, chemical and chemical products, plastics and plastic products, and glass and glass products. These are all capital-intensive import-substitution industries to which most Japanese capital was channelled.

When comparing the local content of Japanese direct investment with that of local firms, the data show that they were all lower than the average. Thus, we conclude that most Japanese direct investment invested in industries with high import content and the import content of Japanese invested firms was also higher than that of local firms. While some Japanese firms justified the low local content by citing the low quality of locally produced intermediate inputs, a few local studies detect the tied purchase of the inputs with the import of technology from parent companies. The studies found reduced implicit technology fees in the imports of intermediate inputs in the assembling industries, such as transport equipment and electrical products. In other words,

higher technology fees were charged for a higher level of local content in these industries.

Balance of trade and payments

Most Japanese invested firms in Thailand rely heavily on imported capital equipment and other material inputs. Among the industries that rely heavily on the imported raw materials are those in the chemical and chemical products, plastics and plastic products, glass and glass products, and transport equipment industries. It is also worth mentioning that the local content of different industries did not seem to decrease over the years. Actually, the degree of import dependence of the Japanese joint ventures is much higher if the import of capital equipment is included. The capital goods in the Japanese joint ventures were almost entirely imported. The reliance on import inputs also implies that Japanese investment has small linkage effects to domestic industries.

The amount of exports, compared to imports, by the Japanese joint ventures was very small. The data show that their export-sale ratios were very low and they also had a decreasing trend. Much of the exports was from the textile industry. It has been argued that some saving of foreign exchange can be made as a result of the Japanese joint ventures producing import substitution products, but considering the heavy dependence on imports and the small amount of exports, it is doubtful whether Japanese investment can contribute positively to Thailand's trade balance.

In addition to the effect on trade, it is interesting to look into the outflows of foreign exchange resulting from the outward remittance of profits and other fees relative to investment inflows.

For Japan, the outflow was 91 percent of the net direct investment inflow in the 1970s, and lowered somewhat to 77 percent during 1981-85. The reduction of the ratio in the early 1980s was due to the slow increases in profits, dividends, and interest on loans relative to the increases in the inflow. However,

if interest payments on suppliers' credits were added, the percentage of outflow to inflow would have been higher.

As a whole, it is still doubtful that foreign investment as a package can contribute to the improvement of the balance of trade or payments, especially when interest payments on suppliers' credit, and imported raw materials and capital goods of foreign firms are also taken into consideration.

Policy measures

It can be seen that the Thai government has exhibited a generally favorable attitude towards foreign direct investment. As there are no institutional mechanisms in the Thai government to screen, register, and monitor foreign direct investment and technology transfer, foreign investors are generally free to carry out business activities in Thailand. It is therefore recommended that on the Thai side, a more clear-cut foreign investment policy be specified. Areas in which foreign investment should be encouraged or discouraged must also be identified. The policy instruments should take the form of incentive or disincentive measures which induce foreign investors to behave in such a way that domestic goals can be achieved. To create an attractive climate for foreign investors, all bureaucratic procedures should be reduced to the minimum. Meanwhile, more budget should be allocated to provide or facilitate the acquisition of information on trade and investment opportunities in Thailand.

On the Japanese side, the government should encourage and take action on the positive industrial adjustment policy, particularly during the recent period of yen appreciation. The various fiscal and credit policy measures should be used to accelerate the "phasing out" of declining industries and the "phasing in" of technologically more advanced and higher value-added industries in Japan. Such an industrial adjustment policy can facilitate the free flow of either goods and services or capital between Japan and other countries. In other words, more exporting industries in Japan should be induced to either restructure their production or relocate their plants outside the country. The policy should help countries such as Thailand

to increase exports and acquire more Japanese investment and technology transfer.

JAPANESE TECHNOLOGY TRANSFER

While direct foreign investment grew at 8.7 percent a year during 1972-1985, payment for various technology contracts and agreements and the imports of machinery and equipment grew at higher rates of 20.6 percent and 15.6 percent, respectively. As a result, the size of payment for the total technology fees relative to the remittances of profits and dividends on foreign investment tripled from 1972 to 1985. This indicates that the unpackaged agreements have become an increasingly important channel of the transfer of technology.

Unpackaged technology transfer

The payment for technology from abroad during 1978-1985 increased from 17% a year in 1978 to almost 60% in 1985. Over the period, payment for copyrights and patent royalties accounted for 60% and technical and management fees about 40%. The main industries which were purchasers of foreign technology during 1978-1985 were automobiles, food and beverages, pharmaceutical products, and electrical products. They accounted for about two-thirds of the total payment. For automobile and electrical product industries, the values of technology imports were mostly from the payment for copyrights and patent royalties. The technology payments were mostly made to Japan and the United States. While the payment to Japan increased, that to the United States declined over time. The technology purchased from Japan was mostly paid through the copyrights and patent royalties while the technology from the United States was mainly through the technical and management agreements. The largest source of technology supply to Thailand was thus definitely from Japan.

Direct foreign investment

Another channel of technology transfer is through the joint-ventures with foreign investors. The issue is how successful the transfer is. The studies

on the issue are few, but all agree that the transfer has been minimal or limited. In Thai-Japanese joint ventures, local partners failed to receive much of the technical know-how and the production technology was known only to the Japanese expatriates. When local partners were asked whether they could conduct business on their own after so many years of joint investment, the answers turned out to be negative in most cases due to the lack of technical know-how.

It is well accepted that linkages between foreign firms with local suppliers or subcontractors can diffuse foreign technology and skills to other sectors and at the same time provide local feedback to foreign firms to the benefit of higher degrees of indigenization. In Thailand, most Japanese firms have minimal linkages with local suppliers or subcontractors. In fact, compared to local firms, they had higher import content of intermediate inputs and engaged less in technology adaptation processes.

The study found that too short a stay in Thailand by Japanese experts, the lack of policies to support local R&D and manpower development, language barriers, lack of local qualified personnel, high job turnover rates among skilled workers, low technology absorbing capability, and lack of developed supporting industries were the major constraints for Japanese technology transfer to Thailand.

Recommendations

The study recommended that efforts be made in both the public and private sectors in Thailand to correct the constraints of technology transfer stated above, and incentive schemes be provided for technology importation, adaptation, diffusion, and development. The Japanese government should expand and reorient its official development assistance programs to Thailand so as to accelerate the strengthening of economic and social infrastructures conducive to effective technology transfer and development. The Japanese government should also provide incentives to encourage the promotion of technology exports, adaptation, diffusion, and if necessary, development.

Distribution Infrastructure of Four Food Product Exports of Thailand

by Suthad Setboonsarng

This is the first phase of a project funded by the Engineering Advancement Association (ENAA) in Japan to study the distribution infrastructure of food export products from Thailand. Four products are chosen in this phase to represent four categories of export commodities: namely tapioca (for cereal), frozen chicken (for poultry), shrimp and cuttlefish (for seafoods) and longan (for fruits). The second phase of the project, focusing on frozen chicken, is now underway.

This study found that currently there is excess capacity in pelletization plants, warehouses and loading facilities for cassava. The existing capacity of the pelletization plants is about 6 times the size of its annual output. The 4 million tons capacity of warehousing is a little less than the total annual export volume of the country. The loading capacity of 53,000 tons per day can accommodate the total export in about 120 days.

These excess capacities are caused partly by the change in the production location from the Eastern region to the Northeastern region and partly by government export regulations. The establishment of the new deep seaport in Lam Chabang could bring about a new round of adjustment in the location of these facilities and consequently further excessive capacity.

The export of frozen chicken is a recent phenomenon. The hardware and software facilities to handle the export are still in the process of adjustment. Three problems are pointed out: the location of the processing plant, the low quality of packing materials and the inadequate supply refrigerated containers.

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a) Most of the processing plants are located in Bangkok where the domestic market is located. The traffic problem in Bangkok makes the cost higher not only because of the time but also the weight loss and damage to the chicken.

b) The low quality of packing materials causes damage to the chicken during the loading and unloading processes.

c) The limited supply of refrigerated containers increases the freight cost and puts a constraint on the total quantity of chicken that can be exported.

The export of seafoods faces two major problems: the limited quantity and quality of raw materials and the inadequate availability of quality inspection and certification.

i) The expansion in the number and capacity of packing firms has resulted in fiercer competition on the demand for various kinds of seafoods. The incentive structure to discipline the quality of raw materials becomes difficult to establish and enforce. The lower quality of the raw materials makes it difficult to ensure the quality of the output.

ii) The expansion of food export has increased the demand for official certification, especially on the hygiene of the product. Slower expansion of the public agencies that provide the inspection and certificates of food export caused a delay in the process of export.

The main problem in the export of longan lies in its short production season (about 2 months). Therefore, the specific distribution infrastructure has not been fully developed. Longan usually shares these facilities with other products. For example, the use of refrigerated trucks which are the most popular mode of transporting longan, coincides with their off-season use in the fishery industry.

The problems in the distribution infrastructure suggest that as the structure of exports from Thailand moves towards higher value products, there will be some excess capacity in the hardware for the traditional products. At the same time, the expansion of the new products is limited by the slower growth of the public infrastructure, especially the software, in these higher value products.

Agricultural Pricing Policies in Thailand, 1960 – 1984

by Ammar Siamwalla
and Suthad Setboonsarng

This piece of research is part of the Political Economy of Agricultural Pricing Policies project carried out by the World Bank. The entire project examines agricultural pricing policies in 19 less developed countries. TDRI agreed to do the study for Thailand.

The study examines and documents government interventions in four of the country's major export crops: rice, sugar, maize and rubber. There were considerable variations in the nature of the interventions among these commodities. The instruments employed differed, as did the directions of intervention: sugar was generally supported whereas all the others were taxed, either implicitly or explicitly.

The magnitudes of the impact on prices vary widely across crops and over time. Part of the explanation for these differences lies in the nature of the political processes impinging on policy formation which vary from commodity to commodity. Thus, the sugar industry has some of the most developed and therefore powerful groupings in the country. Collectively, they have been able to pressure the government into taxing the rest of the economy in order to support it. Rice farmers, on the other hand, have traditionally been poorly organized. The sector ends up being taxed, at times heavily. Even when the government felt constrained to provide some support, as it has had to do during the last decade, the measures have tended to be acts of political patronage benefiting a few rather than rice farmers as a group. Interest group politics therefore has no place in explaining the twists and turns of rice policies in the past. The key to understanding rice policies lies in the central institution--the Ministry of Commerce.

The study goes beyond the commodity-by-commodity examination of the measures that directly affect the price of the

specific goods. It also examines those measures that were not directly aimed at the agricultural sector itself, but ended up penalizing it nonetheless. Two measures in particular were examined, namely the industrial protection policy and the policy to sustain a balance-of-payments disequilibrium by means of overseas borrowing. Both these policies share the same characteristic in that they caused the baht to be overvalued in real terms. This overvaluation in turn kept the baht prices of the agricultural commodities lower than what they would otherwise be, thus imposing a penalty on the sector. These indirect effects can be substantial, lowering relative agricultural prices by as much as 20-30% in the late 1970s and early 1980s. In fact, by this time, the indirect effects of the nonagricultural measures greatly overshadowed the measures directly taxing the sector which were gradually being reduced.

Aside from the price policy measures that were imposing a net tax on the agricultural sector--the supportive measures favouring the sugar sector were insufficient to overcome extractive policies elsewhere--the Thai government did pursue a number of other policies which injected resources into the sector. It invested considerable sums of money in irrigation which directly benefited the sector, as well as in roads which partially helped it. It has also regularly spent money on agricultural research and extension. The study examines how the size of this injection of resources compares against the extraction through price policies. The results indicated that there was a net outflow from the agricultural sector which was about 6.6 billion baht (in 1984 prices) annually in the 1960s, and 5.0 billion baht annually in the 1970s. However, if the extraordinary years 1973-1975 were excluded, there was a net inflow into the agricultural sector of about 8.0 billion baht. The shift was due not so much to a decrease in the extraction from the agricultural sector--that did not take place until poor world market conditions forced the government to lower its imports in the early 1980s--but to a steady increase in its investment and expenditure on the sector. These figures took into account only the impact of the measures that were aimed directly

at the agricultural sector. If the indirect effects of the industrial protection and foreign borrowing policies are also taken into account, then the relevant figures become 17.0 billion baht in the 1960s, and 27.0 billion baht in the 1970s. Even if 1973-1975 were excluded, there was still a net outflow of 14.3 billion baht. All figures show a net inflow into the agricultural sector in the 1980s.

The reason for the large outflow figures despite heavy government expenditures is because the agricultural sector was being taxed not only to support the government, but a considerable amount of the extraction was implicitly supporting the urban population. Rice export tax in particular made for a lower domestic rice price for urban consumers and this was a large part of the burden that rice farmers had to bear.

The study also measures the income distribution impact of the agricultural pricing policies, but only for the year 1980, when a socioeconomic survey was conducted. The results indicate, as expected, that the rural population lost as a result of the policies followed by the government and the urban population gained. Within the rural sector the loss was higher among the better off than among the poor. Among rice farmers for example, the richer group lost about 6% of their income, whereas the poor lost only 1%. This is because the rich markets a larger proportion of their output than the poor. In urban areas, the main beneficiaries turn out to be the richer households. This is contrary to expectation, in as much as low food prices are supposed to benefit the poor more than the rich. The reason for our results is because part of the government policies were in the form of export quotas, which benefited richer households in the urban areas. The economic rent from these quotas was substantial enough to explain the larger benefit to the rich.

The report for this project has been completed, but under the terms of the contract with the World Bank, cannot be released until their publication of the combined volume, which is expected to be in the second quarter of 1988.

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