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The Policies and Politics of Industrial Upgrading in Thailand during the Thaksin Era (2001–2006)

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What happens when developing countries can no longer grow by simply exploiting their existing comparative advantages in natural resources or cheap labor? When entering the 21st century Thailand was confronted with that question, but in comparison with other East Asian countries it was also a laggard in relation to industrial technology development. Prime Minister Thaksin Shinawatra placed industrial upgrading high on the policy agenda. This article combines a policy cycle analysis with a political analysis. It examines the ability and willingness of the Thaksin government to design and implement an adequate and coherent set of industrial upgrading policies with a particular emphasis on implementation issues. It is argued that although many initiatives were taken during the Thaksin era, they did not add up to an adequate and coherent set of industrial upgrading policies. This was partly due to institutional legacies in the bureaucratic system but mainly a result of the logic of politics, including the nature of political coalition-building.

Key words: coalition-building, industrial upgrading policy, technology policy, Thailand, Thai politics

Introduction

What happens when developing countries can no longer grow by simply exploiting their existing comparative advantages in natural resources or cheap labor? Many middle-income countries in Asia are situated sandwiched between competitive pressure from lower-wage countries, from innovators in the first-tier newly industrialized countries (NICs), and increasingly from upcoming countries, such as China and India. To escape from this middle-income trap and climb further up the ladder to higher income levels is much more difficult than arriving at the middle-income level. According to the World Bank, "[h]istory shows that while many economies can reach middle income status—often quite quickly—few pass through it because the policy and institutional changes needed are more complex and more challenging technically, politically and socially" (World Bank, 2007, p. 3).

Thailand has for a number of decades been able to keep high and fairly stable economic growth rates by exploiting existing comparative advantages in natural resources or cheap labor. From the mid-1980s and onward, Thailand shifted from a domestic-market-oriented pattern of industrialization to export-oriented industrialization; it diversified its exports from agricultural products to light manufacturing goods and later to high-tech items, such as hard–disk drives (HDDs). For a decade, Thailand had the highest growth rates in manufacturing exports in the world and was competing with Malaysia to become the "Fifth Tiger." However, Thailand became the "epicenter" of the Asian financial crisis in 1997–1998, which had a significant effect on the financial and industrial sector as well as on living conditions in the country and led to a growing interest in the structural and institutional weaknesses of the Thai economic model.

In the wake of the financial crisis, a range of studies and reports pointed to the fact that Thailand had serious problems in relation to competitiveness and industrial technology development. One study found that Thailand lagged 10–15 years behind South Korea in the early 1980s, which is when it had a similar level of industrial and manufacturing development. Moreover, the intensity of business-performed research and development (R&D) in Thailand would have to be increased to around 20 times its late 1990s level if it were to reach the intensity found in South Korea when it was at its corresponding stage of industrial development (Arnold, Bell, & Bessant, 2000, p. 70). Another study found that although there had been an upward trend in private sector R&D and broader non-R&D technology activities as well, more than four fifths of Thai enterprises did not conduct R&D, and more than three quarters were not involved in broader non-R&D innovation activities. Further, it showed that most firms had low levels of technological capability with only simple testing and quality control, that less than half had design capabilities, and that only a third had a capacity for reverse engineering (Brooker Group, 2001). Both studies found that industrial upgrading was an urgent matter and called for the economic agencies to take on direct responsibility for more policy and institutional support for industrial technology development.

The 1997–1998 financial and economic crisis also strongly affected the political scene in Thailand. In addition to popular protests against the International Monetary Fund's (IMF) dictated reforms, a strong opposition to neoliberal reforms and support for economic nationalism spread among local business elites struggling to save and protect their ventures. When entering the 21st century, Thailand was still caught in a slow process of economic recovery, which seemed to solve neither the social problems nor the underlying structural problems of industrial development.

It was in this context that a group of local businessmen under the leadership of Thaksin Shinawatra decided to take what Brown and Hewison (2005, p. 353) called direct control of the state, rather than just operating behind the political scenes. Thaksin presented himself as a man who could get things done and was clearly inspired by the paternalist-authoritarian and developmental approach of Singapore's former Prime Minister Lee Kwan Yew. He promised to solve the social problems of the rural communities, to protect the interest of domestic business, and to transform the Thai economy into an innovative, knowledge-based, and internationally competitive entity. Thus Thaksin in his speech to the

United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) session in April 2001 stated that Thailand had to develop its own technological strength and could no longer base it on low value–added import-intensive export industries. He argued that Thailand should look "inward to our original strengths, unique local know how, and matching them with new marketing and communications technology" (Thaksin, 2001b, p. 3). Thaksin came to power in February 2001 and served as prime minister for almost six years. This gave him in principle a unique opportunity for putting forward a coherent vision for economic transformation and of designing a long-lasting industrial upgrading program.

The present article is guided by the view that the nature of the politico-institutional setting has an important impact on the effectiveness of policy-making, and that the quality of industrial policy has an important bearing on the pace and pattern of industrial growth. The article analyzes the ability and willingness of the Thaksin government to design and implement an adequate and coherent set of industrial upgrading policies, with a particular emphasis on implementation issues. It is argued that although many initiatives were taken during this administration, they did not add up to an adequate and coherent set of industrial upgrading policies. This was partly due to institutional legacies existent in the bureaucratic system but mainly a result of the logic of politics, including the nature of political coalition-building. The rest of the article is organized as follows. The second section outlines the analytical framework; a section on Prime Minister Thaksin's policy of industrial upgrading follows. The fourth section looks at the politics of industrial upgrading, while the final section presents the conclusion.

The Policies and Politics of Industrial Upgrading—Elements of an Analytical Framework

The analysis is based on the assumption that upgrading from low to high value–added activities does not take place automatically as a result of either the workings of market forces or of the activities of transnational companies and foreign buyers. Moreover, it is informed by the fact that the now advanced capitalist countries used proactive industrial policies and managed openness in their early development efforts (Chang, 2002). Hence, there is good reason to believe that a set of strategic industrial policies and related governance capacity will also be needed in Thailand's case in its endeavor to catch-up with the advanced capitalist countries.[1]

Strategic industrial policies are those that are deliberately aimed at fostering new industrial capacity and at shifting the industrial structure toward higher technology and higher value–added activities. They seek to provide access to more rewarding and dynamic niches in the world market and to improve competitiveness in the domestic market. Here, I examine a subset of strategic industrial policies, namely the deliberate attempts to foster industrial upgrading. I focus on technological advance and organizational learning, which make it possible to master more complex technological activities within industries. Industrial upgrading policies seek to improve product quality and production productivity by promoting private sector (intrafirm) technology efforts, by

strengthening interfirm knowledge spillovers and learning effects, by building up a strong infrastructure of extrafirm public research and technology organizations (RTOs), and by developing human resources for industrial technology development.

Altogether these activities are often referred to as creating technological capabilities and as promoting a national innovation system (NIS). The notion of technological capabilities refers to the capacity of firms to use and change technologies and includes knowledge, which is embodied in people, codified in manuals, or embedded in organizational arrangements and procedural routines. NIS refers to the systemic aspects of capability accumulation and is made up of a distinct set of institutions (firms, interfirm relationships, universities and other national education and training establishments, public research laboratories, and private intermediate organizations), which jointly or individually contribute to the development and diffusion of new technologies.

The present article concentrates on the ability and willingness of the government to design and implement an adequate and coherent set of industrial upgrading policies that improve technological capabilities and strengthen the NIS. The term *adequate* refers to the policy content, or more precisely the extent to which policies actually address the most pressing upgrading problems. The term *coherent* refers to whether the state introduces a set of policies that work together in the intended direction and not against each other.

The terms *ability* and *willingness* refer to the policy process, or more precisely to the state's administrative-political capacity and to the orientation/motivation of the political elite. Agenda-setting, policy choice, and policy design are complicated matters. In relation to industrial upgrading, a strategic vision of technological development is vital both to create policy coherence and to serve as a focal point around which private sector decisions can be coordinated. The systemic approach also includes the setting up of public or public-private institutions that can coordinate change, socialize part of the risk, or galvanize cooperation among private enterprises. Moreover, policies must encompass support measures that can effectively motivate both owners and management to take a long-term view and enter into risky investments, which are to the advantage of broader national industrial development. However, subsidies must be given in exchange for performance standards and not as simple giveaways or side payments. Still, policy makers may be unable to design an adequate policy because they know little about the actual workings of the private industrial sector. Even if they have that knowledge, they may prioritize other issues that are more important for their political survival. The political elite may also have preferences for policies that help existing firms rather than emerging firms with a higher value–added potential.

Even if politicians have a long-term vision concerning industrial upgrading and decide to formulate an adequate and coherent set of related policies, these policies must of course be implemented before they can have any impact. In contrast to macroeconomic policies, which are difficult to decide upon but easy to implement, industrial upgrading policies are fairly easy to decide upon but complicated to implement effectively. Whether policies will be pursued, altered, reversed, or sustained after they have been decided upon depends on many factors. Effective implementation first requires a high level of administrative and

technical capacity as well as sufficient financial resources. Furthermore, as such policies often cut across bureaucratic agencies, successful implementation requires bureaucratic cooperation. Implementation may fail because the bureaucracy has insufficient autonomy from above (i.e., from politicians and individual ministers) but may also fail if the bureaucracy does not receive sufficient support from the political elite. Implementation may also fail if there is too little autonomy from business (i.e., if the bureaucracy is strongly influenced by individual firms or business groups) and if there are insufficient connections to the business sector, which is not just an important source of decentralized intelligence but is also crucial in the actual implementation process. While a top-down approach to policy implementation may work in relation to macroeconomic matters, it is not suitable when it comes to microeconomic policy, where interventions have to address specific industrial upgrading constraints.

One should also note that this research is concerned with both macro- and micro-levels of implementation. The former involves political and bureaucratic officials having decision-making responsibilities, thus being directly involved in the politics of implementation and policy redesign. By contrast, lower-echelon implementers in focal agencies (e.g., RTOs) carry out micro-implementation. It is at this level that public-private policy networking, including possible feedback and two-way learning processes, is especially important. In short, policy implementation is a complex matter, being highly interactive and apparently as much political as technical. There are also limitations at the impact stage in the sense that well-conceived and well-implemented policies, of course, may not have their intended effect due to underlying structural conditions and/or private sector resistance.

Altogether, this also implies that broader political-institutional factors must be taken into account, which leads this study to the broader politics of industrial upgrading. What states actually do cannot be deduced from what states can do—i.e., state capacity. At a more general level, the potential developmental role of the state cannot be studied only by looking at administrative structures, interactions, and procedures. In the end, it is a matter of politics. To understand state action and development orientation, one needs to consider leadership, the amount of pressure put on political elites, political conflicts, political exchange relations, coalitional politics, and legitimacy.

There may be elite cohesion over national goals, or the state's elites may be divided. A narrow elite may follow long-term developmental goals but may also focus on particularistic short-term goals. What looks like an ambitious developmental policy may represent unrealistic policies that are put forward for symbolic reasons or because huge projects normally also have wide scope for monetary gain. Similarly, one must also study the politics of state-business relations, not just technocratic public-private networking. While all capitalist states are structurally constrained by their dependence on a stable but dynamic private sector, some are further constrained by specific political exchange relations with the private sector. In any case, one must analyze how political coalition-building and political exchange relations between state and business elites are organized, and how this impacts on "the will" of the state elite in relation to industrial upgrading. Finally, the relation between the state and broader segments of society and in particular how political legitimacy is ensured must be taken into account too.

The Thai Policies of Industrial Upgrading—Toward a Knowledge-based Economy

As part of the endeavor to move Thailand toward a knowledge-based economy and to enhance the foundation for Thai international competitiveness, Prime Minister Thaksin underlined the importance of accumulating local technological capabilities and the need for related effective policy support. In his policy statement to the National Assembly in February 2001, he stated that the government was mindful of the fact that "in order to achieve economic recovery it is necessary to rely on appropriate science and technology for developing the production and services sectors" and listed a set of policies, including the development of science and technology (S&T) personnel, the revision of S&T laws, and the promotion of technology, and [in] "particular information technology for modern administration and management" (Thaksin, 2001a, p. 6). When Thailand had recovered from the financial crisis and when Thaksin started his second period as prime minister in 2005, his policy statements (Thaksin, 2005) stressed the need to develop local science, technology, and innovation capabilities; to strengthen S&T manpower and human resources in industry; to strengthen the S&T infrastructure at the regional level (the provinces); and to encourage clean technology production.

Moreover, the important notion of an NIS coupled to a cluster approach entered strategic policy documents by 2003–2004, and the priorities in Prime Minister Thaksin's second policy statement were a reflection of the Science and Technology Strategic Plan (2004–2013). The plan identified four national priority core technologies: information and communication technology (ICT), biotechnology, material technology, and nanotechnology, and pointed to five major strategies: cluster development linked to the strengthening of the NIS, the development of S&T human resources, the development of S&T infrastructure, the enhancement of public S&T awareness, and improvements to the S&T management system. Concerning the latter, there was an emphasis on cross-cutting coordination in the S&T system by means of science officers in individual ministries, temporary task forces with clear mandates and goals, and a system of independent monitoring, audit, and evaluation (Intarakumnerd, 2005a; NSTC, 2004).

In short, the Thaksin government(s) placed science, technology, and innovation forcefully on the policy agenda. The question is then to what extent it actually succeeded in designing and implementing a more coherent industrial technology policy aimed at improving the NIS in order to promote private sector innovation efforts. More specifically, what was done to promote interfirm, extrafirm, and intrafirm aspects of technological capability accumulation?

A crucial way to upgrade the level of industrial technology is through the strengthening of interfirm knowledge flows. By the turn of the 21st century, vertical innovation–related links between producers and suppliers/customers were considered to be important for technology development and to be limited and weak in Thailand (Arnold et al., 2000; Brooker Group, 2001; Intarakumnerd, Chairatana, & Tangchitpiboon, 2002). The ability to use such linkages for local technological capability development did not just depend on the quality of the links but was also closely linked to the absorptive capacity of local enterprises.

Concerning interfirm linkages, the Thaksin governments introduced cluster development as a way of improving the competitiveness of local enterprises. The strategies that were built around the business cluster idea were developed by the National Economic and Social Development Board (NESDB) and accepted by the National Competitiveness Committee (NCC), which hired Harvard economist Michael Porter and his associates to give advice on the use of the cluster approach to improve competitiveness. According to Porter, clusters are geographic concentrations of interconnected companies and institutions, and the cluster concept should move the focus from isolated firms to the fundamental business environment outside a firm, i.e., to the linkages and externalities across industries, firms, and associated institutions in competition. The Porter Group analyzed and made recommendations for five established and emerging clusters (automotive, fashion, food, tourism, and software). The group conducted more specific studies of potential clusters in tourism and shrimp farming (Ketels, 2003; Porter, 1998, 2003).

These general ideas and priorities were transformed into a set of new industrial policies that focused on so-called targeted industries. By October 2003, the automotive and parts, fashion and textiles, and electronic/electrical appliances sectors had been selected as pilot clusters (Ministry of Finance-NESDB, 2001; World Bank TEM, October 2003).[2] In March-April 2004, a cluster development manual had been prepared, the Ministry of Industry (MoI) being selected as the implementing industry. However, at the March 2004 NCC meeting, the Prime Minister expressed his "displeasure" over the slow development of the industry cluster program, while Deputy Prime Minister Suchart Jaovisida talked about "ways to revive" it. Finally, the ceramics (in Lampang) and digital industries, i.e., industries that had long been promoted by MoI and the Board of Investment (BoI) were added to the list of clusters to be promoted, and 2005 was fixed as the year in which support for clusters was expected to take off (*Bangkok Post*, March 22, 2004; *The Nation*, June 11, 2003; World Bank TEM, October 2003, pp. 13–14; World Bank TEM, November 2004, p. 37).[3] In his statement on his second government's policy, Prime Minister Thaksin (2005) reiterated that cluster support was an important ingredient in the government's policy and that the government would support cluster formation in the five niche sectors, but he also referred to cluster formation in a wider set of industries. The government would now "stimulate the development of an enterprise network to increase value added and networking in food, fashion, automobile, electronics, software and tourism industries as well as support other enterprise networks e.g. energy, health, biology, services, creation and design" (2005, p. 3).

More generally, the promotion of clusters became a buzzword used in a variety of programs and strategies. As cluster promotion encompassed national clusters, sectoral clusters, and regional clusters, there was some confusion around the cluster approach. This confusion was reinforced by the notion of innovation clusters as well as local-level clusters in the form of the OTOP—"One Tambon, One Product-Project"—cluster development aimed at promoting a unique product for each village (*tambon*) in Thailand (Altenburg et al., 2004; NSTC, 2004).

In addition to promoting clusters, Prime Minister Thaksin also stated that the new government would promote linkages between assemblers and supporting industries (Thaksin, 2005). However, in reality such vertical linkages were given

less emphasis than grassroots economy initiatives. While the only serious vertical linkage program to create interfirm linkages and embed Transnational Companies in the local industrial structure—BoI's Unit for Industrial Linkage Development program—was allocated a mere Bt27 million in 2002, the high-profile cottage industry OTOP had a budget of Bt800 million (Altenburg et al., 2004, p. 38).

In short, during the Thaksin period, Thailand's weak and fragmented interfirm linkages were acknowledged and the cluster development concept was advanced to rectify the situation. However, due to fluidity in the cluster concept, the bias toward horizontal linkages, and the promotion of micro-enterprises through the OTOP program, a coherent and adequate strategy of industrial upgrading through interfirm knowledge flows did not come into being. The original focus on a specific set of industries was watered down, and technology accumulation in local supplier firms was not given priority.

The extrafirm links to public RTOs have generally been weak in Thailand. For one, public research activities have not been oriented toward industry but toward health and agriculture. Second, those RTOs that were supposed to service the industrial sector conducted R&D activities that were supply-driven in the sense that the RTOs defined their own priorities and focused on their own capability-building—subsequently to be transferred to the private industry. Hence, there was no guarantee that the RTOs actually matched private sector needs and demands for support. When ad hoc links between RTOs and private enterprises were created, they were mostly related to simple company-specific troubleshooting rather than to helping enterprises to build up technological capabilities. Moreover, RTO services were little used, and firms tended to consider them as unimportant sources of innovation-relevant information. Further, there were overlapping services and a general lack of both institutional and functional specialization. Finally, these activities were not adjusted to the fact that most local Thai firms were below the R&D threshold, so that consultancy and advanced technical services rather than R&D were of particular importance for developing these firms' technological capabilities (Arnold et al., 2000; Brooker Group, 2001; Lauridsen, 2008).

The Thaksin government was well aware of the need to focus and improve the role of RTOs in industrial technology development. Hence, both the research-oriented RTOs under the Ministry of Science and Technology and the more service-oriented RTOs under the MoI were involved in the cluster-based initiatives. Thus the National Electronics and Computer Technology Center (NECTEC) of the National Science and Technology Development Agency (NSTDA) became an active agent in the HDD industry. Thailand was the world's second largest HDD producer, and exports of HDD and peripherals accounted for 12% of the country's exports in 2004 (Berger & Diez, 2006, p. 12).

The HDD industry consisted mostly of fully owned foreign enterprises that traditionally had functioned as a high-tech enclave with the import of high-tech components from abroad, with few innovation-related linkages to other firms and with almost no relation to the public S&T infrastructure—the latter reflecting the state's hands-off approach in relation to technology development (Berger & Diez, 2006; Doner & Brimble, 1998; McKendrick, Doner, & Haggard, 2000). According to Brimble and Doner (2007), there was a major shift in the government's approach to the HDD industry in 2003. Building on previous actions of first the

HDD giant Seagate and later the collective initiatives by the Thai branch of the global HDD association IDEMA (The International Disk Drive Equipment and Materials Association), the NSTDA financed a HDD industry cluster study. The following year, the BoI made HDD a prioritized industry and provided a special incentive packaged for the industry (Brimble & Doner, 2007; Intarakumnerd, 2005b). In August 2004, the NECTEC worked with IDEMA to set up a coordinating cluster management organization. Hence, there were by 2006 an HDD program, a steering committee for the HDD cluster, and an HDD institute (NECTEC, 2007).

As far as university-industry linkages were concerned, more initiatives did take place in the HDD industry, just as a joint graduate program was developed between King Mongkut's University of Technology in Thonburi (a municipality of Bangkok) and leading local petroleum and petrochemical companies. However, generally, the linkages between academia and industry were few and weakly institutionalized. In his study of 136 university-industry contacts, Schiller found that ad hoc consultancy and technical-analytical services were present in 49 and 35% of the cases, while more ambitious research-based and interactive modes of linkages were less common—licensing (17%), contract research (15%), and joint research projects (7%) (2006a, p. 80). The modest formation of effective linkages was shaped by the low absorptive capacities of most Thai firms, the lack of interest among TNC subsidiaries that obtained their technological inputs from their parent companies, the uneven nature of the university sector where only a few public universities were moving toward becoming research universities, and the mismatch between research specialization in the public sector (medicine and life sciences) and technology fields dominating in the private sector, which in turn was a reflection of the fragmented nature of the Thai innovation system.

Initiatives were also taken in relation to the service-oriented RTOs, which during the 1990s were organized into semi-independent industry institutes under the MoI. Since the Thaksin government acknowledged the problems of limited financial means, limited technical resources, and narrow orientation, it decided not just to accelerate the formation of independent sectoral institutes, but also to focus their mission and strengthen them financially. Based on a 2003 NCC study, a decision was made in the following spring that the Productivity Institute, the Automotive Institute, the Food Institute, and the Textile Institute would be the first to undergo restructuring during 2004–2006 (World Bank TEM, April 2004). However, in April 2005, the World Bank observed that "the progress of the restructuring has been slow due to insufficient allocation of government resources for the institutes, and the multi-layer bureaucratic procedures that delayed implementation" (World Bank TEM, April 2005, Appendix 2, p. 9). The outreach and quality of RTOs dealing with international standards, meterology, testing, and quality control were low, so that local companies still had to use much time and pay high fees to international agencies to acquire the needed product certification (Altenburg et al., 2004).

In short, there were signs of a more focused and strategic approach in relation to the RTOs. However, this does not indicate that Thailand had moved far in relation to creating extrafirm or, for that sake, interfirm linkages related to technological development. A study by the World Bank (2006a) analyzed the

country's technological capabilities based on a productivity and investment climate survey (PICS) embracing 1,385 local and foreign firms of various sizes in 10 different industries, plus 100 firms in the ICT sector. The survey took place during March 2004–February 2005. In the study, it turned out that linkage capabilities (the ability to utilize interfirm and extrafirm relations) were actually the weakest technology capability component, implying that Thai firms generally had difficulties in tapping into available global knowledge and in building technological capabilities in cooperation with other firms or RTOs.

The development of human resources for industrial technology development constitutes a third type of industrial upgrading policies. The buildup of firm-internal technological capabilities as well as the ability to utilize interfirm and extrafirm relations are tightly coupled to the availability of a skilled workforce and sufficient S&T personnel. When the Thai Rak Thai (TRT) Party came to office in 2001, Prime Minister Thaksin stated that the government would launch new educational reforms aiming at transforming Thailand into a knowledge-based society. The major rationale of the reforms was to solve the following problems: lack of coordination of diverse and fragmented education efforts, the highly centralized and Bangkok-centered administration of the educational system, overemphasis on bricks and mortar compared to investment in people, neglect of S&T issues, inadequate incentives to promote good teaching and teacher learning, inadequate use of ICT, insufficient foreign language (i.e., English) proficiency, persistent unequal access to secondary and higher education, and problems related to traditional teaching methods based on rote learning (Fry, 2002).

Prior to that, the 1997 Constitution and the National Education Act (NEA) of 1999 had already opened up the possibility for 12 years of education for all and for nine years of compulsory education. Moreover, the NEA was made up of four main components: administrative reform, learning reform, personnel reform, and reform of resources and investment in education. When implemented, these educational reforms would result in a total reorganization of the educational system, including a considerable decentralization of authority to 175 education zones. To make the educational reform easier, Prime Minister Thaksin merged the Ministry of Education (MoE), the Ministry of University Affairs, and the Office of the National Education Commission into a single new MoE with four commissions in 2002. In addition to the administrative National Educational Council, the three councils for basic education, vocational education, and higher education were created to supervise each type of education. Finally, a Fifteen Year National Education Plan (2002–2016) was enacted.

However, the new MoE was characterized by considerable turbulence, and there were a total of five education ministers during 2001–2005. It happened that the third education minister opposed the student-centered active learning approach and treated the NEA as a product of the former government, while the last education minister soon ran into a scandal but kept the portfolio during the rest of the first Thaksin government (Economist Intelligence Unit, February 2004, May 2004, November 2005). Three areas of educational reform were of particular importance for industrial upgrading: vocational education, skill development, and tertiary education.

Thailand ran a dual secondary education system, in which the vocational stream provided pre-employment training in a range of fields. During the 1990s, vocational education was criticized for failing to meet industry needs and providing the necessary skills for future development. Furthermore, despite a large increase in secondary enrollment during the 1990s, around two thirds of the existing labor force had only received primary education by 2001. Due to the very slow pace of the educational reform, in May 2003 the NESDB announced an action plan for developing the skills of the nation's work force. The first step was to carry out an analysis of the workforce in 14 strategic industries. The next step was to draw up strategic plans for skill development in each sector. The study showed that the demand for workers in industry would increase by about 900,000, of which 470,000 jobs would be in manufacturing. The demand would primarily be for skilled workers (i.e., vocational graduates) and higher education graduates. With regard to vocational education, the education minister subsequently ordered the 412 public vocational schools to admit 25,000 more first-year students (*Bangkok Post*, October 11, 2004; Thapanachai, 2004). Furthermore, these schools were merged into 28 multicampus vocational institutes "aiming at developing a strong partnership with the private sector; remobilizing resources; developing demand-driven programs in line with local needs; identifying and strengthening areas of excellence in each institute; developing multi-disciplinary programs" (Ministry of Education, 2004, pp. 31–32).

Further, in cooperation with the Federation of Thai Industries, the NESDB in October 2003 developed a demand-driven program, Thai Vocational Qualifications (TVQ), to benchmark and improve national occupational skills, so that they both met international standards and covered the needs of local Thai companies. Business operators, technical institutes, and trade associations were expected to work together to conduct needs assessments, develop occupational standards for each job in each industry, develop competency-based curricula, and finally develop an accreditation system for training providers. Business operators were supposed to cover the costs of skills improvements, but the state would subsidize training. By April 2005, the TVQ Act had been drafted, but it was still in the process of being reviewed by the Council of State and therefore had still not been submitted to Parliament. In September 2005, the Vocational Education Commission approved the formation of the TVQ institute, and committees were established to work on the formation of the institute and its program, but by November 2006, when Thaksin had already left office, the TQV institute initiative was still pending (World Bank TEM, April 2005, 2006). Behind the stalemate was a conflict between the MoE and the Ministry of Labor, the latter fearing that it would lose control over certification standards. In addition, there were conflicts between public and private training providers because private providers feared that the new rules would be too expensive to meet (Doner, 2009; Ritchie, 2006).

To promote skills development in the private sector, the Thai government had, taking inspiration from similar programs in Singapore and Malaysia in 2001, decided to introduce a payroll tax on firms that were not providing adequate training. Based on the Skill Development Promotion Act of 2002, a Skill Development Fund was set up to support private sector training activities. The act required all firms of a certain size to make contributions toward the fund at a fixed rate (not higher than 1%) of their payroll, except if the firm was already an

authorized training provider. If firms introduced skills development, then they could deduct the training costs from income tax and get loans from the fund to subsidize training and skills-testing activities (Department of Skill Development, 2002). While the government thus finally managed to decide upon a levy-grant scheme, much leeway was left to ministerial regulation and to business lobbying. "Rather than be responsible for paying into a skills development fund up front, firms argued that they should only be responsible for the levy if it was found they were not training. The onus for ensuring that training actually took place fell to the DSD [Department of Skill Development], which had neither the capacity nor the motivation to carry out the required monitoring and enforcement" (Doner et al., 2009, p. 159).

Finally, the skills development strategy was undermined by the lack of labor/union involvement in its development and by government support of flexible low-wage industrialization. While trying to convince employers to support skills development, Thaksin simultaneously undermined efforts to raise minimum wages and to ratify the International Labour Organization's conventions on freedom of association and collective bargaining. Moreover, by relying increasingly on short-term contracts even in the major export industries, employers actually undermined long-term upgrading of labor qualifications (Brown & Hewison, 2005). With more than two fifths of the labor force employed in the rural sector and with access to immigrant workers from Cambodia, Laos, and Myanmar, employers were still oriented toward price-based competition relying on unskilled workers rather than toward in-house or out-of-house training of their workers. Hence, even if policies are to be implemented, there are strong structural conditions working against skills upgrading.

Due to neglect of secondary education in the 1980s and the preference for low-wage industrialization, Thailand had an underdeveloped skill base. By 2004, more than 60% of the work force still had primary education only, and even the high-tech industries mostly employed unskilled production workers. The latter constituted 75% of the workers in manufacturing, compared to 49% in neighboring Malaysia (World Bank, 2006a, p. 98, 2006b, p. 21). The problem of skills shortages and mismatches was also revealed in the Thailand PICS, which interviewed both managers and workers. The study showed that Thailand was producing fewer secondary education graduates than countries at the same level of development and also that the quality of these graduates was lower. Furthermore, both managers and workers pointed to the lack of basic and technical skills with a particular emphasis on English language proficiency and ICT skills. Almost one third of workers with education attainment less than a university degree and more than primary education reported that they were underqualified for the jobs they performed (World Bank, 2006a, pp. 69–80, 98, 2006b, pp. 19–25).

The above-mentioned mismatch of supply and demand of labor also pointed to the lack of highly trained scientists and engineers in Thailand. This deficit was increasingly becoming a problem because Thailand competed with technology-intensive goods from, in particular China, which has invested dramatically in expanding its higher education system with an emphasis on S&T (World Bank TEM, November 2006). This put strong pressure on Thailand to expand

enrollment in tertiary S&T education and to offset its higher wages by improving the quality of such education.

The Thaksin government acknowledged the problem of the shortage of S&T-based professionals for the new knowledge economy but did not take strong action. The government introduced a mixture of greater autonomy, cuts in public funding, and management reforms. Concerning autonomy, in 1998 the government decided that all Thai universities would become autonomous by 2002, which in principle should give them greater financial freedom, less bureaucratic red tape, and more scope for interacting with industry—but also create more staff insecurity. When Prime Minister Thaksin left office in September 2006, no university had switched to autonomous status (Brimble & Doner, 2007; Intarakumnerd, 2005a; Liefner & Schiller, 2008; Schiller & Liefner, 2007). Concerning funding, higher education budgets had stagnated while the number of students increased at all levels. This was somewhat mitigated by the final part of the Thaksin era, when the higher education budget was raised (Liefner & Schiller, 2008, p. 286; Schiller, 2006b, p. 492). Still, the public funding pressures remained and the universities responded by establishing special undergraduate programs in social sciences and humanities or new MBA programs; that is, programs that were "neither suitable to alleviate [the] shortage of graduates from science and technology programs nor subject to efficient quality procedures" (Schiller & Liefner, 2007, p. 550). Finally, a performance-based monitoring system was under preparation but not implemented. However, a performance-based monitoring and management system was included in the US$137 million Asian Development Bank–supported Higher Education Development Project (HEDP). The project (1997–2006) was aimed at improving human development in S&T. More specifically, it led to the formation of "centers of excellence" in seven S&T technologies, involving 12 public universities and 43 faculties. By 2006, the enrollment in the seven centers was 2,912 in master's programs and 849 in doctoral programs (Asian Development Bank, 2006, pp. 3–4, 10; Liefner & Schiller, 2008, pp. 289–290).

In sum, in spite of the HEDP, there was still a mismatch between the quantity and quality of the supply of graduates and the demand of private enterprises—the latter reporting a shortage of qualified S&T graduates. Moreover, a stable and trust-based relationship between government and universities that could ensure implementation of the organizational reforms was not in place. In addition, one may also question the underlying assumption that the introduction of market elements into the universities would actually lift the quality and long-term relevance of university activities.

Finally, in relation to intrafirm aspects, i.e., the promotion of private sector technology efforts, the Thai government had been running a combination of fiscal and financial mechanisms, and a June 2002 evaluation report concluded that Thailand's system of incentives did not pay sufficient attention to "efforts to enhance basic engineering and design capabilities, building knowledge networks between large and small firms and stimulating demand for technology upgrading. Other weaknesses identified in the Thai systems concern targeting, coordination and promotion of the schemes and a lack of an overall evaluation framework" (Turpin et al., 2002, executive summary, p. 4). Hence, even though Thailand ran a generous incentive system for R&D that was comparable to those

in neighboring countries, it was little known among private firms, was highly complex, had cumbersome procedures, and was not sufficient tailored to capability development.

The Thaksin government did introduce two interesting changes with a certain potential. First, in August 2003, the government decided to merge two of its financial support schemes into a National Innovation Agency (NIA), to promote and support "innovation for competitiveness." To strengthen its efforts the NIA was set up as an autonomous organization supervised by a National Innovation Board. However, even this new incentive system was still not much used. In 2005, technology grants were provided to only 13 projects (Bt17 million), while soft loans were given to 22 projects (Bt24 billion) (NESDB & World Bank, 2008, Appendix D, p. 19). As a consequence, the NIA's major role seems to have been related to the more vague and diffuse matter of innovation culture promotion through such activities as public relations, innovation awards, and innovation management training (Intarakumnerd & Brimble, 2007; National Innovation Agency, 2006, 2007).

Second, the BoI was as part of the October 2002 public administrative reform, transformed from an agency under the Office of the Prime Minister to part of the MoI. The BoI, which had traditionally focused on investment promotion in relation to physical capital rather than knowledge capital, was asked to focus more on the latter. Hence it launched a new investment promotion strategy in late 2002. Since the BoI was expected to pay much more attention to issues of long-term competitiveness, it designed a special promotion package for skills, technology, and innovation (the STI package). Under this framework, firms could enjoy one or two years of extra incentives in the form of an exemption from corporate income tax for expenditures on R&D or design, advanced technological training, and support for educational or research institutions. With regard to R&D or design, firms could enjoy such extra incentives by spending at least 1–2% of sales on R&D or design, or by employing scientists and engineers with at least a bachelor's degree if they represented at least 5% of the workforce. In December 2005, a more flexible STI incentive system was introduced. Now the incentives were applied to the total of STI expenditures, and the greater the expenditures, measured on a scale from either 1–3% or Bt150 million–Bt450 million, the greater the tax exemption (Board of Investment, 2005, p. 1).

In brief, the two changes did indicate a stronger focus on intrafirm technology upgrading and on a broader range of innovation activities, making the policies more adequate in a Thai context, in which most firms had technological capabilities well behind those required for entering into advanced R&D. However, the two new programs were not coordinated, and policy coherence was also compromised by the fact that numerous other R&D incentive programs with too many agencies involved were still in place. Therefore, any significant impact of these new incentive schemes on private sector technology efforts could not be expected. In 2004, Thailand was only spending 0.25% of its gross domestic product on R&D and the private business sector accounted for just 36% of that—both figures substantially below Malaysia (0.69 and 82%, respectively), not to mention Taiwan and South Korea (NESDB & World Bank, 2008, p. 71).

To sum up, the analysis of industrial technology–related policies presents a mixed record. On the one hand, there was a shift toward a rhetoric of reform, and

more visionary industrial technology policies developed around strategic industries and technologies. Due to the stronger focus on the foundations of international competitiveness, the suggested policies and measures also became more relevant for industry. Further, the policy framework for private sector technology efforts (including training) was improved, and there was also a growing awareness of the systemic aspects of industrial technology upgrading. On the other hand, lack of continuity in leadership led to delays and some inconsistencies in the formulation and implementation of human resource reforms. Further, despite some success in a few cases, interfirm and extrafirm linkages generally remained a weak point in Thailand's innovation system, just as the restructuring and improvement of RTOs was given half-hearted attention and its implementation was slow.

While the Thaksin administration was certainly not allied to workers and unions but tried to meet what were considered as the needs of domestic capital and in some cases used consultative mechanisms to extract information from the private sector, there was still a top-down policy approach that did not do much to eradicate the private sector's lack of trust in bureaucrats. The government also tried breaking the strong bureaucratic fragmentation that for long had resulted in functional duplication, policy gaps, unclear accountability, wasted resources, and confusing signals to the private sector. Thus the government tried to improve the institutional setup by bringing together related state agencies, such as in the case of the transfer of the BoI from being an agency under the Office of the Prime Minister to becoming a part of the MoI and in relation to the creation of a new MoE. However, both the organizational changes and the policy record can only be fully understood in the context of the broader politics of industrial upgrading, to which I now turn.

The Politics of Industrial Upgrading

The mixed record in relation to the willingness and ability of the Thai government to design and implement an adequate and coherent set of industrial upgrading policies reflects particular political processes and institutions. The following text focuses on three aspects of the politics of industrial upgrading: political-administrative fragmentation, centralized decision-making, and the nature of coalition-building.[4]

Bureaucratic Fragmentation and Party Politics

Though Prime Minister Thaksin did take certain initiatives to cope with functional duplication and administrative fragmentation, these issues still prevailed in the government's industrial upgrading policy. It reflected the fact that ministries in Thailand generally were weak while departments were strong. This made the director-generals in departments the leading senior bureaucrats and actually divided the ministries into separate "silos," with each of them having divisions performing identical services.

The administrative fragmentation was fueled by a similar political fragmentation stemming from the fact that political parties were themselves divided into competing factions. Factions brought together a group of candidates/Members of Parliament who were linked to voters through networks of canvassers and a

system of vote-buying practices. Factions used patronage from cabinet seats as their primary source of income, but they were also able to obtain funds from the party or from other parties if they realigned their affiliations just before elections or between elections. As the ultimate goal of factions was to join a ruling coalition and obtain cabinet seats, they were a constant source of instability and fragmentation in the political system.

The political parties in Thailand have traditionally been a collection of factions fronted by a well-known professional politician, but the most important person has been the power broker, who is able to form parties out of factions and coalitions out of parties. The cabinet was thus made up of parties with a preference for a "minimum winning coalition"; that is, as few parties as possible for cabinet posts to be shared. It was not unusual to give the post of minister to one party and of deputy minister to another, but some ministries had such great potential for spoils that they had several deputy ministers from different parties (Ockey, 2003; Pasuk & Baker, 2004). Hence a system emerged in which each party in the coalition government was in charge of some ministries and of some departments in various ministries. This meant that the jurisdiction of ministries was divided among ministers who had their primary loyalty to their party/faction and not to the coalition government as such. Furthermore, each ministry was divided into fiefdoms (departments, divisions, or state enterprises) run by deputy ministers who also had their primary loyalty to their party or faction. The overall result was a fragmented government system in which each party, through its deputy prime minister, supervised its part of the ministerial system. Consequently, since ministries were divided into fiefdoms leading to their fragmentation, and since there was generally a principle of nonintervention across ministries, cross-cutting the coordination of programs and services was extremely difficult.

This system was partly—but only partly—changed by Prime Minister Thaksin. As the richest man in Thailand he was in a good position to bring many factions together in his TRT party and win a landslide victory in the January 2001 election (and later in the February 2005 election). Further, taking inspiration from Malaysia and Singapore he used a grand coalition strategy, which led to the absorption of—or merger with—two other parties: the New Aspiration Party and Chart Pattana. By using this strategy and also by applying a divide-and-rule strategy he could to some extent undermine the power of factions, and by combining the stipulation in the constitution that ministers were not allowed to hold parliamentary seats with well-placed threats of reshuffling he could also to some extent avoid factional defections, discipline ministers, and centralize power in his own hands (Bowornwathana, 2004; Connors, 2005; Painter, 2006).[5] Furthermore, power was also centralized by forming an inner circle of close ministers in the cabinet and by attaching a large political staff to the Office of the Prime Minister (Pasuk & Baker, 2004, p. 92).[6] This centralization of power (see also the following section) may explain why by Thai standards, Prime Minister Thaksin was able to stay in power for a long period and why he was able to push for more strategic industrial upgrading policies and get cabinet approval for many (but not all) reform measures.

However, the fact that the TRT itself was made of factions, that it internalized coalition politics by bringing other parties under its umbrella, that Prime Min-

ister Thaksin himself was a major player in patronage politics, and that senior bureaucrats were still in charge of formulating specific rules and regulations, making it easy for them to delay or even obstruct policies and programs, may also explain why the prime minister was only able to implement some of the policies and often with delays. Moreover, frequent ministerial turnovers, as in the case of educational reforms, also had a negative impact on implementation of policies. Finally, due to the persistent departmental parochialism, functional duplication, and overlaps among departments and divisions, Prime Minister Thaksin also had to turn to the traditional mechanisms of setting up new agencies to solve problems without abolishing the old ones and of establishing cross-ministerial committees that failed to come up with solutions to pressing problems. Thus in the case of training and skills development there were still nine different ministries involved in providing training courses for various target groups, so the government set up the Skill Development Promotion Committee.

Centralized Decision-making, Prime Ministerialization, and CEO Management

Though Prime Minister Thaksin presented himself as an almost neo-liberal reformer who wanted to eradicate an inefficient and corrupt bureaucracy and create a smaller, more efficient public sector, there are reasons to believe that a significant underlying logic was the centralization of decision-making power and patronage politics.

First, the centralization of power was not confined to the parliament, cabinet, and bureaucracy. Prime Minister Thaksin also moved to gain control over the armed forces, the police, the independent watchdog mechanisms (the National Counter Corruption Commission, the Elections Committee, and the Constitutional Court), the media, local strongmen, nongovernmental organizations, and civil society more broadly. He looked on the country as a company and worked to centralize of power in the hands of a single authority, namely "CEO Thaksin" himself. Moreover, his "war on corruption" was in contradiction with the way in which he undermined the National Counter Corruption Commission and with constant political maneuverings to save the TRT from public scrutiny. Hence Thaksin managed to pacify the election commission by ensuring that TRT allies were appointed as new members, and by late 2003 he had managed to get his men in charge of the National Counter Corruption Commission as well.

Second, Prime Minister Thaksin was not really interested in a minimal state structure and actually went for a larger state structure. The creation of six new ministries and 17 new departments increased patronage politics by making more senior bureaucrat positions available for Prime Minister Thaksin's supporters through lateral movement and reshuffling. The strong political overtones in this ministerial restructuring also sent a message to the senior bureaucrats as to where power over the bureaucracy would lie in the future (Bowornwathana, 2004; Mutebi, 2003; Ockey, 2004, p. 148; Painter, 2006; Thitinan, 2003). More specifically, the Ministry of ICT played an important role in favoring Prime Minister Thaksin's own companies during 2002–2003 (Pasuk & Baker, 2004, p. 209).

Third, while Prime Minister Thaksin's push for the more flexible appointment and transfer of senior bureaucrats as well as his cross-ministerial initiatives could be seen as way of breaking the power of the departmental heads and increasing bureaucratic efficiency, it might also be looked upon as an effective instrument to replace uncooperative officials with loyal TRT officials (Painter, 2006, p. 40). Prime Minister Thaksin also adopted a sophisticated output-oriented budget system in 2003, in which the new Budget Policy Committee and the service delivery task of the individual ministries were to be formulated in Public Sector Agreements. Again, this may be interpreted as a step toward a more performance-oriented public sector, but the budget reform also served other purposes. For one, it was also about breaking the power of the traditionally strong Bureau of Budget (BoB) and its links to the strong director-generals. The BoB was to be sidelined through the formation of the Budget Policy Committee, made up of the prime minister, a range of other ministers, and handpicked experts. Next, Prime Minister Thaksin reserved huge amounts of money—the central fund—to be used at his discretion as prime minister, though with cabinet approval. In relation to the 2005–2006 budget, the Economist Intelligence Unit observed that

> the largest allocation of funds is that directed to the so-called central fund, at Bt256.2 bn, or 18.8% of the total. The government provided few details of how the fund would be used. Most of the central fund's budget were allocated to "economic restructuring," with the remainder set aside for development projects planned by provincial governors and special projects planned by deputy prime ministers. The central fund has traditionally been set-aside as a source of central government budget finance for emergencies. However, the Thaksin administration has been increasingly keen to widen its use, but without a high degree of transparency. (August 2005, p. 19)

In short, there were strong indications of "prime ministerialization," which Bowornwathana has defined as "the use of administrative reform as a means to consolidate and take away power and authority from ministers and senior bureaucrats into his hands" (2004, pp. 135–136). According to Bowornwathana, Prime Minister Thaksin applied an "a country is my company" approach in which all power was centralized in the hands of the CEO, who had discretionary power over central and line bureaucrats.

As mentioned previously, the strong centralization of power gave Prime Minister Thaksin the opportunity to push harder for reforming the industrial upgrading policy, but there were also important drawbacks. First, the discretionary power left the door wide open for public policies that advanced particularistic interests—those of the Thaksin family, those of his business network, or those of the TRT factions. Second, and related, by presenting himself as a CEO—a man who could get things done—and also as someone who was above human rights, multiparty democracy, and the rule of law, he introduced "problems of policy unpredictability," which can undermine more long-term-oriented industrial upgrading initiatives (MacIntyre, 2001, p. 87). Third, it opened the possibility for a "dual track" in policy formulation, one track being linked to ordinary planning processes with private sector consultation, and the other to ad hoc decisions on the prime minister's pet projects (Altenburg et al., 2004, p. 31). Hence, while the well-funded OTOP initiative was the prime minister's pet

project, based on ad hoc decision-making, the sector-specific cluster initiatives were mostly based on careful analysis and planning. While the pet projects made political sense—high political visibility—and were instrumental in building up new networks of local political support, they did not make much economic sense.[7] Fourth, there was also the issue of rhetoric versus reality. The managerial speech and constant flow of new policies or pet projects coming from Prime Minister Thaksin and his core economic ministers may also have been more a part of symbolic policy-making and the need to show initiative and drive. McCargo and Pathmanand went so far as to argue that "Thaksin is an opportunistic politician, for whom ideas are simple means to an end. He is not animated by the pursuit of ideas, but by the pursuit of wealth and power" (2005, p. 20). While I do not fully share this view of Prime Minister Thaksin's policies in relation to industrial upgrading issues, the rhetoric and symbolic aspects of his personalistic policy style were clear and should not be overlooked. Finally, by applying a paternalist approach, Prime Minister Thaksin failed to change the traditional top-down style of industrial policy-making with weak private sector inputs to planning and policy-making. This leads to the issue of coalition-building.

Big Service Business, Populist Alliance and Distributive Politics

The TRT's electoral platform for the 2001 elections was organized on a populist-nationalist basis by on the one hand appealing to small-scale businessmen and the urban middle classes who thought that the Democrat Party had discredited itself by linking up with the IMF during the financial crisis, and who were sympathetic to Thaksin's attack on old-style politicians. On the other hand, it also had a strong appeal for the rural masses who had suffered most during the financial and economic crises and who had been neglected by the former government. In reality, however, it was a third group, big service businesses, that was the leading force behind Thaksin, and it was also this group that benefited most.

When Thaksin formed the TRT in 1998, he drew on the support of major business survivors from the crisis. Many belonged to the group of so-called concessionaries, i.e., new metropolitan businessmen who obtained lucrative concessions in mobile phones, media, and entertainment businesses. By 2001, they also entered politics to defend and enhance their business interests. The leading business force behind Thaksin was thus not rooted in the manufacturing sector but mainly in four segments of the service sector: telecoms, real estate and construction, entertainment and the media, and to some extent banking. It should be noted that these segments were financed by domestic capital and were oriented toward a domestic market protected from foreign competition by licensing, concessions, national security laws, and the alien business law. The government favored the collective interests of these big service businesses by delaying the privatization of telecommunication agencies, by delaying the establishment of independent regulatory commissions for broadcasting and telecom as required by the 1997 constitution, and by easing conditions regarding concessions (Hewison, 2005; Pasuk & Baker, 2004). On top of this, there were several cases of more particular favors (McCargo & Pathmanand, 2005, 222–223; Pasuk & Baker, 2004, p. 112; Tejapira, 2006). For example, state financial institutions favored specific businesses by writing off substantial amounts of bad debts. In

short, there were very close, particularistic links between Thaksin and his business tycoon associates. Rather than destroying the patronage of old politics, Thaksin managed to elevate it to a new level and take control of it.[8]

It thus appears that the Thaksin government was organized around a narrow coalition consisting of the Shinawatra business empire and Thaksin's business associates (plus his wider network in the military and the police). However, the reason for Thaksin's landslide victory in the elections was his appeal to rural voters and the urban poor who together made up almost 70% of the population and had been politically marginalized during previous governments. Just a year before the 2001 election, Thaksin and his advisors drew up a three-point rural program, consisting of a three-year debt moratorium for farmers, a Bt1 million community fund for every village in Thailand, and a Bt30-per-hospital-visit program. The reforms were mostly of a distributional nature, and other aspects of the new populism were aimed at converting peasants into small entrepreneurs, rather than changing their structural position in the overall socioeconomic structure, e.g., through land reform.[9] The next step in this new "contract policy" was to actually carry these policies out soon after the election, and by doing so Prime Minister Thaksin managed to obtain strong support among rural people in particular. During the election, the TRT used the media and the press to make direct appeals to the rural poor, but to be effective it also had to rely on "old politics" and use substantial sums to buy local canvassers and bring in "old-style" faction leaders, not least Sanoh Thienthong (the Wang Nam Yen faction). In sum, by combining a narrow alliance encompassing a selected group of domestic businesses with considerable side payments to the rural masses, Thaksin managed to develop a special kind of "business populism," or a rich-poor "pluto-populist alliance" (Baker, 2005, p. 108; Hewison, 2005; Pasuk & Baker, 2005).

In relation to the policies of industrial upgrading, one can observe first that there was much more focus on distributive politics as compared to productive development policy. The distributive focus encompassed both handouts to the rural poor and side payments to business supporters.[10] Second, the alliance with business was directed at service sectors oriented toward the domestic market, while manufacturing sectors were less well placed. This meant that Prime Minister Thaksin was neither particularly interested in embedding the foreign assemblers in the export-oriented sectors (e.g., automobiles and electronics/HDD industries) more in the Thai business context, nor in promoting industrial upgrading of the local Thai suppliers in these industries. In contrast, his focus was much more on the idea of developing new innovative entrepreneurship, combining available new technology with existing local knowledge (called "local wisdom") and coming up with new national products to serve the domestic, regional, and in some cases international markets. Third, in contrast to the earlier indirect influence of metropolitan businessmen, Prime Minister Thaksin brought representatives of metropolitan business groups into the TRT party and into government, making it more difficult to develop more broad-based industrial upgrading policies.[11]

Conclusion

Prime Minister Thaksin was the first elected Thai prime minister to serve a full term, and his politics was one of centralization of political power in the hands of

a CEO premier, hence transforming the Thai state into his own machine. Prime Minister Thaksin presented himself as a dynamic and effective leader who could get things done and worked for the benefit of the people and the nation in part by cleaning up "the evils" of the past.

The present article has been concerned with the extent to which Prime Minister Thaksin actually managed to restructure the Thai economy by moving the Thai state in a more developmental direction. It narrowed the scope further by asking whether the Thaksin governments demonstrated the ability and willingness to design and implement an adequate and coherent set of industrial upgrading policies. The reason for focusing on industrial upgrading, and not other development issues, is that serious problems of weak internal linkages and insufficient industrial technology development have appeared to block higher value-added industrialization in the country. This constitutes a still more serious problem because the country is situated in a sandwiched position between competitive pressure from lower-wage countries and competition from innovators in the first-tier NICs and increasingly in upcoming countries, such as China and India.

In addition to presenting elements of a framework of analysis, the first part of the article analyzed a set of policies related to industrial upgrading. At the macroeconomic level, the first Thaksin government managed to kick-start the economy mostly by using off-budget means to promote a range of programs, including the OTOP. The article focused on the government's industrial upgrading strategy and found that while it was visionary in trying to spearhead longer-term growth by targeting specific industries, the transformation from plans to specific policy programs and to implementation took considerable time. When analyzing the individual industrial technology-related policies, this study found a mixed record of, on the one hand, visionary and systemic thinking coupled with increasing industry relevance and, on the other hand, delays and inconsistencies. The overall picture was thus that of a mixed record that did not qualify as an effective industrial upgrading policy comparable to those found in the Asian NICs at a corresponding stage of development.

The second part of the article showed that the mixed record was linked to the institutional setup and the broader political processes. I described how the politics of Prime Minister Thaksin was one of the centralization of power in the hands of a CEO premier transforming the Thai state into his own machine. On the one hand, this undermined the democratic potentialities in the 1997 constitution. Prime Minister Thaksin turned out to be a soft authoritarian figure who looked at democracy as a tool rather than a goal, and he managed to appeal to the rural poor who had previously not experienced that the process of liberal democratization had worked to their advantage. Hence they, as well as many urban poor, were open for a charismatic, populist leader who came up with policies that were responsive to some of their needs and grievances. On the other hand, the centralization of decision-making in the hands of Prime Minister Thaksin afforded him with a unique opportunity to implement lasting (including industrial upgrading) reforms but also with the opportunity to focus on policies that created material wealth and prosperity mainly for himself and his allies.

Compared to previous coalition governments in Thailand, the TRT governments came up with a strategic vision for industrial transformation, but this vision was a mixture of well-prepared plans for selected industries/technologies

and populist pet projects of the Prime Minister with certain symbolic and distributive qualities but little relevance for productivity and upgrading. At the level of policy programming and implementation, Prime Minister Thaksin on the one hand was able to use his wealth to buy support from parliamentarians and his political power to discipline ministers and coalition partners in order to avoid the problem of fragmentation, duplication, and poorly coordinated policies. On the other hand, long-lasting reforms of industrial upgrading were compromised by other factors. First, Prime Minister Thaksin was forced to ensure that resources flowed to political factions in his own and in coalition parties, which led to a process of shifting, and not particular developmental, policies as in the case of secondary education. Next, rather than creating a more modern, efficient, and effective bureaucracy, Prime Minister Thaksin meddled with bureaucratic transformations to ensure the political loyalty of senior bureaucrats and guard against outside scrutiny in his own affairs. Third, the insufficient autonomy of the bureaucracy from above was combined with a similar insufficient autonomy from below—that is, the takeover by the Thaksin family business empire as well as other metropolitan businessmen (mostly in services) who entered politics to defend and enhance their business interests (the so-called concessionaries). Finally, and on a related note, there was a lack of institutionalized connections with the industrial sector—connections that were crucial for information provision, effective implementation, and policy feedback and learning.

In sum, the TRT government came to power in February 2001 and Thaksin served as prime minister for an unprecedented six to seven years. This gave him in principle a unique opportunity for putting forward a coherent vision for economic transformation, of formulating and implementing long-lasting industrial upgrading policies, of breaking with institutional fragmentation and duplication and moving the Thai state in a more developmental direction, and of moving the Thai industrial sector in a more dynamic and advanced direction. Prime Minister Thaksin did formulate strategies to shift Thailand toward a knowledge-based economy, and he was more concerned with meso-level and micro-level foundations for international competitiveness than previous prime ministers. However, he was also (and not least) concerned with how these policies, as well as populist policies, could ensure his own political survival and selectively promote the interests of his own business empire and that of his business associates. In the end, Prime Minister Thaksin had become so ingrained in one-party dominance, narrow business networking, and cases of conflict of interest that he had produced a serious democratic deficit and challenged a range of metropolitan interests, including strong interests in the army and royal circles. This opened the scene for the September 2006 military coup, for his exodus to London, and for a period of persistent political instability in Thailand.

Notes

[1]The framework presented in this section is fully described in Lauridsen (2008, Chapters 7 and 8).

[2]Due to the business interests of groups with close links to the cabinet, the list of targeted industries increased (Pasuk & Baker, 2004, p. 114).

[3]Other regional clusters discussed during 2003–2004 included motorcycles in the East, shrimps in Nakhon Si Thammarat, organic vegetables in Nakhon Pathom, tourism in the North, and multimedia in Bangkok.

[4]I focus only on these three political-institutional factors, but as correctly pointed out by a reviewer three other factors played a role, too. First, the ministries involved in industrial upgrading were mostly weak ministries and academic economists who preferred a hands-off approach to economic development populated the key economic ministries. Second, the core persons in charge of S&T kept addressing S&T issues as simply a matter of science-push with an emphasis on R&D and human capital formation rather than as a broader and more demand-driven process of improving the Thai innovation system. Third, the still-influential old establishment around the monarchy, high-rank bureaucrats, and old business families had interest in neither bureaucratic shake-up nor industrial upgrading. In addition, one could mention that there were strong structural forces at play. The pressure from the economic downturn that during the early years forced Prime Minister Thaksin to act and also put a strong incentive on businessmen to care about the structural problems of competitiveness was eased as Thailand went into a period of fast economic recovery.

[5]During his first government (2001–2005) there were no less than 10 such reshuffles.

[6]For details of the personnel in Prime Minister Thaksin's inner network and political staff, see McCargo and Pathmanand (2005, pp. 93–99) and Pasuk and Baker (2004, pp. 66–74).

[7]Funston (2002, p. 320) observed that the product selection was arbitrary without clear guidelines and that the program was an administrative nightmare that involved no less than 16 different ministries and agencies. McCargo and Pathmanand (2005, p. 82) observed that the OTOP exercise played a role for Prime Minister Thaksin's sister in her formation of a political support base in northern Thailand, and that Suriya Jungrungruenkit as Minister of Industry and a wealthy new party secretary-general was instrumental in this process. By mid-2005, it was clear that the OTOP had lost momentum and could not make a major contribution to industrial development in Thailand (see, e.g., *Bangkok Post*, 2005).

[8]Factions were still to some extent allowed to fund themselves through their respective individual cabinet members by entering into old-style patronage. Consequently the usual corruption scandals appeared in various ministries.

[9]Other parts of this grassroots program include the OTOP scheme already mentioned, a People's Bank, and associated micro-credit schemes.

[10]For a comparison of the size of pro-poor distribution with that of pro-rich redistribution, see Warr (2002, pp. 332–334).

[11]In this sense Prime Minister Thaksin differed from Malaysia's Mahathir Muhammed and in particular Singapore's Lee Kwan Yew—both of whom he admired and tried to copy (Pasuk, 2004). Prime Minister Thaksin did interact with broader parts of national business. As a part of its "competitiveness drive," the Thaksin government did in March 2002 formalize broader public-private deliberations by setting up a national committee with the participation of the prime minister, the economic ministers, the Federation of Thai Industries, the Thai Bankers' Association, and the Board of Trade. The committee reflected the increasing concern in both the private sector and the government about Thai competitiveness in core exporting industries, as well as Prime Minister Thaksin's ambitious plan to convert Thailand into a knowledge-based economy, but this mechanism did not represent a significant shift in the direction of a more institutionalized public-private sector interaction (*Bangkok Post*, March 7, 2002).

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