SINGAPORE PUBLIC ENTERPRISE IN THE MARINE INDUSTRY

Douglas Sikorski

INTRODUCTION

Shipyards are the characteristic institution of what is termed the 'marine industry.' The marine industry in Singapore constitutes three major segments: shiprepair, shipbuilding and rigbuilding (refer to Table 1). For shiprepair, the main segment of the marine industry in Singapore, an important competitive advantage has been the country's strategic location along the tanker route between the Middle East and the East Asian countries. Further advantages for Singapore are deemed to be its low costs, high efficiency and labour productivity. Singapore still provided for 60% of the Asian shiprepair market in 1995, but new competitors to challenge Singapore's secure market position were anticipated from emerging industries in countries such as China or Vietnam. However, necessary infrastructure there is years away from creating real potential for a serious competitive threat.

The most competitive conditions worldwide have prevailed in shipbuilding. Since locational convenience is not an important attribute in national competitive advantage (unlike for shiprepair), Singaporean firms have not attempted to challenge the dominant market leaders Japan and South Korea which have better logistical support in terms of domestic heavy industry.

Singapore has been second only to the United States among the world's largest rigbuilders since the boom in oil exploration commenced in the early 1970s. However, rigbuilding as a segment of the overall marine industry was only really significant during the days of the 'oil crisis' through the early 1980s. The mid-1990s ushered in a minor upswing, with new offshore finds in Malaysia and Indonesia coupled with the opening of the Vietnam market auguring well for regional rigbuilders.

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Table 1: Output of the Marine Industry in Singapore (S$ billions)

Year	Total	Ship repair	Ship building	Rig building
1997	3.400	1.550	1.026	0.828
1996	2.864	1.464	1.264	0.134
1995	2.732	1.536	0.818	0.377
1994	2.706	1.759	0.829	0.118
1993	2.504	1.707	0.692	0.104
1992	2.721	1.936	0.560	0.225
1991	3.127	2.193	0.576	0.358
1990	2.260	1.466	0.638	0.159
1989	1.828	1.344	0.299	0.185
1988	1.356	0.999	0.216	0.141
1987	1.108	0.688	0.337	0.084
1986	0.723	0.591	0.113	0.020
1985	0.651	0.457	0.142	0.052
1984	1.128	0.688	0.277	0.183
1983	1.495	0.673	0.430	0.392
1982	2.284	0.860	0.781	0.643
1981	2.418	1.088	0.790	0.540
1980	1.901	0.865	0.537	0.499
1979	1.393	0.725	0.387	0.281
1978	1.045	0.541	0.374	0.130
1977	1.225	0.537	0.530	0.158
1976	1.250	0.465	0.525	0.260
1975	0.980	0.460	0.272	0.248
1974	0.720	0.435	0.145	0.140
1973	0.516	0.413	0.103	--
1972	0.437	0.350	0.087	--

Source: Association of Singapore Marine Industries Annual Reports.

Despite recession in the developed economies through the early 1990s, regional demand kept the shiprepair industry operating at nearly full capacity. However, since the last half of 1992 Singapore's marine industry witnessed a downturn that saw a drop in output, after having experienced a run of 6 years of double-digit growth. Slack world trade and declining freight rates meant less shiprepair by shipowners. Even so, one local executive[1] had predicted renewed profitability for five reasons:

(a) The sea was still the primary means for transporting goods.
(b) Middle East oil would still be transported past Singapore.
(c) The world fleet was aging, requiring more repairs.
(d) The Asia Pacific region was experiencing dynamic growth.
(e) Ship classification requirements and environmental concerns were increasingly more stringent, creating work for shipyards.

Table 2: Keppel Corporation's Performance (million S$)

GROUP:	Total Revenue	Pretax Profit	Net Worth	Productivity*	% Dividend
1997	3447.8	413.5	7449.3	NA	13.0
1996	2885.7	506.4	6442.2	NA	13.0
1995	2404.4	444.9	5859.1	67	13.0
1994	2103.4	416.9	5141.6	68	13.0
1990	1400.3	225.0	2283.2	49	8.0
1985	616.1	- 49.9	727.4	37	1.5
1980	535.9	104.3	407.4	NA	20.0
1975	NA	53.6	159.2		12.5

COMPANY:	Operating Revenue	Pretax Profit	Net Fixed Assets Capacity	Million dwt Drydock
1997	239.8	117.8	282.1	1229
1996	227.8	45.5	280.7	1229
1995	285.7	63.8	249.4	959
1994	423.8	73.9	211.6	959 (in 1993)
1990	385.1	74.0	197.4	600 (in 1988)
1985	164.3	- 18.1	263.6	570 (in 1982)
1980	NA	70.1	202.6	190 (in 1977)
1975	41.8	105.5	40	

* Productivity is measured by Value Added / Employees ('000)

Source: Annual Reports

An incipient recovery in the second half of 1996 was disrupted in mid-1997 by the regional financial crisis. Anyway, a 30% increase in local capacity and new competition from yards in Bahrain and Dubai would have kept any recovery modest. The devaluation of the Singapore dollar in fact was expected to improve the competitive position of Singapore's shipyards versus the Middle East[1], but other local industries were destined for a severe downturn (such as the high-flying banking and property sectors at Keppel Corporation).

Keppel Corporation was Singapore's largest shipyard. Among the top six Keppel owned one-third of total dry-dock capacity and well over half the total market capitalization. Shiprepair had been Keppel's original business, but the modern enterprise was really a diversified conglomerate, having attempted property development, even telecommunications, banking, stock brokerage and many other businesses, as well as the gamut of marine and supporting activities.

A CASE HISTORY OF KEPPEL CORPORATION, A PUBLIC ENTERPRISE

Incorporated in 1968 as a wholly state-owned (public) enterprise, Keppel dated its origins from the building of Singapore's first dry-dock in 1859 at Keppel's modern location. By 1968 the dockyard was being operated within the Singapore government, the Dockyard Department of the Port of Singapore Authority. A five-year management contract was signed with the Swan Hunter Group from the United Kingdom to modernize the facilities and develop local management to run what was then to be Keppel Shipyard on a fully commercial basis.

Keppel's first chairman from 1968-70 was Hon Sui Sen (refer Table 3). Hon was also Singapore's first Minister of Finance as well as the first chairman of the Development Bank of Singapore (DBS). These responsibilities meshed very effectively to the benefit of Singapore and Keppel, as we shall see.

Growth and Diversification of the Keppel Group

During the 1970s Keppel's rapid expansion constituted internal growth and what textbooks term related or concentric diversification in the marine field. In the 1980s the Group engaged in unrelated or conglomerate diversification into property and finance. The development and 1993 listing of Keppel Bank, Singapore's fifth major domestic bank, was a "significant achievement for an industrial group in Singapore and could not have taken place without the blessing of the authorities", according to a Group executive. An historical summary follows of key steps in the Group's growth.

The largest subsidiary of the Keppel Group was Far East Levingston Shipbuilding (FELS). Keppel became majority owner of FELS in December 1971, two years after FELS had entered the rigbuilding industry and four years after original incorporation in 1967. Prior to the investment by Keppel, FELS had been severely under-capitalized. After acquisition by Keppel, FELS began a drive to expand and diversify that established it at the forefront of the world rigbuilding industry. Singapore has been second only to the United States among the world's biggest rigbuilders since the boom in oil exploration commenced in the early 1970s. (However, rigbuilding as a segment of the overall marine industry was only really significant during those days of the 'oil crisis' through the early 1980s, see Table 1).

Keppel's largest investment in shiprepair, S$200 million for the Tuas Yard, commenced construction in 1974, with a 150000 dwt dry-dock commissioned in 1979 and the major dry-dock of 330000 dwt commissioned in 1983. The Tuas project had been evaluated over a 22-year life with an expected ROI of about 14.3% (Chung, 1981), but nothing like that was ever realized.

Keppel's largest acquisition, at S$400 million in 1983, was Straits Steamship (SS). SS was a British company involved in not only shipping and engineering, in which Keppel had experience, but also property, leisure, and data processing. This acquisition made Keppel the biggest company in Singapore excluding banks.[1]

Until a major slowdown in 1984-85 affecting all Keppel's main businesses, the Group expanded and diversified aggressively.[1] George Bogaars, chairman from 1970-84, was interviewed in Business Times on 20th July 1983, which reported: "Keppel's top decision-makers have stated in no uncertain terms their aim to turn the already diversified group into a world renowned conglomerate"; and that policy seemed to have been in effect from the start. Bogaars was quoted as saying, "it has been steady progress with us, eroding the conservatism of our main shareholder [Temasek Holdings, part of the Ministry of Finance portfolio] who has been generally taking the line that a 'cobbler should stick to his last'... The government has been very reticent about what the Temasek-controlled companies should do. Of course, they monitor the operations of the respective companies. But, there hasn't been much policy guidance... *[Keppel's] major effort has been to persuade Temasek and the Ministry of Finance that we should be diversifying into marine-related industries, shipowning and other activities...* It was the same with diversification into financial services. “We spent a lot of time, energy and effort to get the major shareholders to understand that finance is another branch worth putting their investments in."

Keppel's venture into the field of finance began with a factoring company in 1978, expanding in the 1980s to include a finance company, moneybroking, and insurance, and banking in the 1990s.[1] As Keppel's financial initiatives illustrate, Singapore's state-owned enterprises were often in the vanguard of national business developments. Many debt issues were the first of their kind in Singapore, including an unguaranteed Asia Dollar Bond in 1977, a commercial paper issue in the US in 1984, a revolving underwriting facility later that same year, a bond issue with warrants in 1986, and a 1990 share issue in the US where Keppel was the second firm in the world to exploit a new rule there. In March 1993 Keppel was one of the two local firms to list an option when the new options market opened on the Singapore Stock Exchange.

Temasek gradually softened its stance during the 1980s on its companies 'sticking to the knitting'. On 8 May 1986 Keppel Shipyard Limited changed its name to Keppel Corporation to reflect the fact that it was a conglomerate, and not just a shipyard. However, even though shiprepair had by then been significantly rationalized, it was still the company's main line of business. Sim Kee Boon (Keppel's chairman from 1984-present) observed that "as long as Singapore remains a major port there is a need for the shiprepair industry." Shiprepair and shipbuilding constituted 63% of Group revenue in 1988, declining to 21% for 1995 and 15% for 1996. Nevertheless, ground-breaking for a new S$100 million dry-dock began in 1994, which increased dock capacity by 35% at project completion in June 1996.

Internationalization of the Group

International production of the Group (primarily regional) started with a shipyard in the Philippines in 1975. By 1995 Keppel was Singapore's largest investor in the Philippines; and Keppel's Philippines holdings had diversified into power generation, financial services, engineering services and property development, in addition to shiprepair and shipbuilding. Other countries comprising Keppel's international portfolio in 1996 included: America, Australia, Britain, China, Hong Kong, India, Indonesia, Malaysia, Myanmar, Thailand, Sri Lanka, United Arab Emirates and Vietnam. In UNCTAD's World Investment Report 1995, Keppel ranked 14th in terms of foreign assets held by transnational corporations from developing countries.

In 1994, Keppel was appointed by the Economic Development Board to lead the Republic of Singapore's flagship overseas operation. This is a turnkey project by a consortium of 20 state-owned and privately-owned firms to develop a S$30 billion, 70 sq km township in Suzhou, China. Reassured by the active involvement of both the Chinese and Singapore governments at the highest levels, investors from USA, Japan, Hong Kong, New Zealand, South Korea and Singapore made commitments totaling US$1 billion by year-end 1994 to build their facilities in the Township. However, Suzhou already had a competing industrial park, and Singapore's project lost business that was directed away by local authorities.

Financing and Subsidy

Many shipyards worldwide survived on the back of government subsidy, but that tendency was generally on the decline by the 1990s. Singapore had eschewed subsidy even in the early years. Keppel's early capital financing was either government-provided, or government-backed which was a normal expectation of credit providers. In 1975 and 1976 government-guaranteed bonds were issued, but a 1977 bond issue signaled the end of that practice.

The 1979 annual report noted, "The critical factor in the competition for contracts, however, still is the availability of government financing." Similarly, Keppel's subsidiary Far East Livingston Shipbuilding in its 1981 annual report expressed a hope for "the continued support of the Government through ECICS which provides the financing to the industry..." [1]

Although there was no evidence of financial subsidy, Keppel often could rely on the Development Bank of Singapore (DBS) for investment banking services. DBS was established by the government and was 49% Temasek-owned. DBS was lead underwriter for Keppel's original public flotation of shares in 1980 which reduced the government's ownership to 75%. DBS performed the same service for a rights issue in 1984, the 1986 bonds with warrants, and the revolving underwriting facility, and was Keppel's adviser on the takeover offer for Straits Steamship (succeeding Jardine Fleming).

The Rationalization Exercise of the 1980s

Rationalization of business in Keppel has taken various forms including: the exit from shipping; a logical regrouping of businesses by activities at various times, such as putting the financial services companies under Keppel Bank; and balance sheet restructuring to prepare for public listings of certain subsidiaries.

Perhaps the most dramatic rationalization exercise was in response to the severe downturn in the entire economy in 1983-85. During 1985 and 1986 major retrenchment programmes were implemented by all Singapore shipyards. The total workforce in shiprepair was reduced from 25,000 to 18,000.

On 17 December 1985 it was headlined in the Straits Times that Keppel would move from its original facilities to Tuas Yard. This move had been broached many years earlier in the Harvard case study: "in about 15 or 20 years, major policy-makers would have to decide whether Keppel Shipyard or the port should remain at Keppel Harbour... the obvious decision would be to resite Keppel." (Chung, 1981) Tuas Yard was suggested in the case as one of the strategic alternatives for Singapore to resolve the problem.

In April 1985 Keppel and Sembawang Shipyards had commissioned an American management consultant group to recommend alternative rationalization strategies for the two companies. On 26th September 1985 the Far Eastern Economic Review reported that Keppel was resisting recommendations by the consultants to close both the Main and Tuas Yards at Keppel, rationalizing Singapore shiprepair to Sembawang's facilities. The Review stated, "Not surprisingly, Keppel's management is understood to have rejected the recommendation outright. The need for capacity reduction was not disputed but Keppel is believed to have argued for across-the-board reductions by all yards in Singapore." On 3rd December 1985 Keppel and Sembawang announced that they would not follow the consultant's recommendation to merge. In a joint statement the companies gave as their reasons that minority (non-government) shareholders would suffer.

On 11th October 1985 Keppel announced agreement with four other yards to reduce dock use by 20% by adopting a 24-working-day month. The agreement was concluded by Keppel, Sembawang Shipyard, Jurong Shipyard, Hitachi Zosen Robin Dockyard, and Malaysia Shipyard and Engineering, which together accounted for 90% of shiprepair capacity in the Singapore vicinity. Sembawang and Jurong Shipyards were part of the Temasek portfolio of companies along with Keppel, and the other two were private shipyards.

The Tuas move would cut Keppel's capacity by 45%, and total Singapore capacity by 20%. Keppel was planning to convert its old yard into a marina-condominium development, an idea which was well outside the company's original mission. (Coincidentally, the abandonment of the old yard was deferred, as the industry's good fortunes were returning. It was not until new capacity came onstream at Tuas in June 1996 that the old yard was finally abandoned.)

Throughout the retrenchment Keppel maintained its excellent labour relations record. Keppel was the second company in Singapore to agree with its union to negotiate annual wage pacts, following the pronouncement in 1985 by the government that nation-wide annual increments would be discontinued. (The first company was General Electric). Keppel's agreement confirmed a wage freeze earlier declared by the Prime Minister, which was destined to last two years. On 16th December 1987 a Minister of State who was advisor to the Union of Keppel Shipyard Employees announced the signing of an agreement with the management to begin restoring benefits in phases.

Outlook

The rationalization exercise was well behind Keppel by the 1990s. Through 1991 Keppel's growth and profitability soared to new record highs, but sagged amidst a new industry downturn commencing 1992. Despite the downturn, the Group reported a jump in revenues in recent years due to strong contributions from banking, property and rig-building. Even while earnings for the shipyard were declining, Keppel was building a new 360000 dwt dock at a cost of S$100 million, which came onstream in June 1996.

As one of Singapore's largest companies, Keppel was at the vanguard of national development efforts and was described by the Republic's leaders as a "flagship Singapore company in our mission to create an external economy." (Business Times, 24th April,1994)

No backwater shipyard, the company had an exemplary record of achievement in technology, finance, and manpower development. The leaders of Keppel were key members of the national leadership team. Since 1968 Keppel had proceeded on an aggressive course of growth and diversification, and the modern group was a sophisticated conglomerate.

In 1998 Keppel, facing its first loss since 1985, announced radical steps to reform its operations, including mergers and divestments. Some overseas operations had created doubts about group synergy because the various units had pursued separate strategies as they spread all over Asia and the world. Regional operations were being divested such as liner shipping, leisure and aviation businesses in the US, and non-performing overseas shipyards. The downside of regional investment was clear: Sim Kee Boon noted in November 1998, "in the heady days of expansion, we were not as stringent as we should have been in our investment appraisals."

ANALYSIS OF PUBLIC ENTERPRISE IN THE CASE OF KEPPEL

Theoretical Underpinnings

Since the late 1970s researchers have been investigating public enterprise (PE)[1] with renewed enthusiasm, with particular interest in management limitations and adverse implications for the 'free trade movement'. However, scholars have failed to produce a unified, cohesive concept of PE. Certainly many theories have been advanced, but inferences about the behaviour and performance of PEs remain scattered and inconclusive (See for example Sikorski,1993 which elaborates on the disjointed and contradictory state of the prevailing wisdom). If there is any unequivocal conclusion in the literature, it is that PE is an unwanted, improper sort of enterprise, prone to confusion by politicians and bureaucrats.

Supposed difficulties of PE stem from the conflict between corporate objectives to maximize the profitability and efficiency of the enterprise, versus the objectives imposed by government to fulfill social goals such as the equitable distribution of benefits, control by government of strategic or 'sensitive' industries, etc. Incentives for management accountability and performance are perceived to be weak because of less direct ownership interest (property rights) and immunity from bankruptcy and takeovers. Organization structure, management practices, salaries, etc, may conform less to standards of business in the open market. Crucially, the presence of government in an enterprise subjects it to all the pressures the government itself must face, especially the need to satisfy special interest groups and voters.

Notwithstanding, the Singapore PE system seems to be an exception to the general rule -- Singapore PEs have performed exceptionally well, which is contrary to the experience virtually everywhere else in the world. Singapore would seem to represent a rare type of business and governmental culture where PEs are efficient and even fair competitors (and effective vehicles for national competition as well).

The following are general comments concerning management idiosyncracies of PE that might be attributed to the ownership factor. The central observation is that the success of Keppel speaks well for the state's role as owner.

Table 3: Keppel Corporation's Board of Directors as at 29th March1996

Name	Position	From-To	Other Positions Held
Hon Sui Sen*	Chairman (former)	1968-70	Former Minister of Finance; First Chairman Econ Development Bd (1961); First Chairman & Pres Dev't Bank S'pore (1968)
George Bogaars*	Chairman (former)	1970-84	Chairman Nat'l Iron & Steel, Guinness Mahon; Dir Acma, Int'l Trust & Finance, United Industrial Corp (UIC); before Keppel: Head Civil Svc, Perm Secy Min of Defence
Sim Kee Boon*	Chairman	1984	Head Civil Svc (1979-84); Perm Secy Communications and Finance Ministries; Founder Chairman Intraco: Chairman Insurance Corp of S'pore(1968-82), National Grain Elevator(1986-1987), NGE Enterprises, Civil Aviation Authority S'pore (1984-) S'pore Suzhou Township Dev
Chua Chor Teck*	MD (former)	1969-86	Before Keppel: S'pore Harbour Bd; other positions NA
Low Wing Siew	MD	1974	Chairman or Dir 47 Keppel companies
Kung Yew Hock	GM (op'ns)	1983-89	Dir of 7 Keppel companies
Choo Chiau Beng	MD (FELS)	1983	Chairman or Dir 20 Keppel companies; Pres Assoc for S'pore Marine Industries
Lim Chee Onn*	MD(SS)	1983	Member of Parliament; Secy Gen Nat'l Trades Union Congress (1979-83);

			Minister w/o Portfolio (1980-83); Dir Nat'l Iron & Steel (1986-); Dir of 45 Keppel or SS companies
Billie Cheng*	na	1987	Chairman Sentosa Transport Svcs, S'pore Cable Car; Dir MAP Svcs, Port of S'pore Authority, Paktank Tankstorage/Terminal
Lim Hock San*		1989	Minister of Labour (former); Chairman S'pore Aerospace; Dir-Gen CAAS (to 1.4.92); CEO UIC (from 1.4.92), S'pore Land; Dep Chmn Pasir Ris Resort
Moses Lee*		1985-94	Dir of Personnel, Education Ministry; GM S'pore Broadcasting Corp
Dr Bernard Tan*		1982	Dean Science Faculty of Nat'l Univ S'pore; Dir S'pore Symphonia Co, S'pore Arts Centre
Hwang Peng Yuan*		1986	Chairman Petrochemical Corp S'pore, Sembawang Salvage, Intraco(1987); Dep Chairman Temasek; Vice Chairman Hitachi Elec Svc; Dir DBS; Bd mem PT ASEAN Aceh Fertilizer (Indonesia)
Dr Cham Tao Soon*		1982	Pres Nanyang Tech University; Former Dean of Engineering at Nat'l Univ S'pore; Chairman S'pore Automotive Eng; Dir Wearne Bros, Applied Research Corp, Mass Rapid Transit, Nat'l Iron & Steel; Member Jurong Town Corp
Teo Soon Hoe	GM(Fin)	1985	Dir Asia Commercial Bank
Tong Choong Heong		1989-96	Dir various Keppel Grp companies

Note: * indicates civil service or other government background
Source: Annual reports, Who's Who, various news items

Origins of the Firm

Port of Singapore Authority transferred dockyard plant, machinery and equipment to Keppel on 1 September 1968. Keppel's liability was established in a "vendor's account" payable to the Ministry of Finance, for which a S$40 million 7% debenture was planned. The instrument was not issued by Keppel until 1978. Thus, Keppel's original plant was bestowed by the government in exchange for an open-dated promissory note. The original capitalization of Keppel is evidence of a cooperative arrangement among parties with a mutual interest in the overall, national result. Obviously, private parties would have more difficulty in agreeing to deferred payment for a future amount at a future interest rate -- especially when the future date was left open.

The combination of government capital with MNC technology and markets was a competitive advantage. As to whether PEs had better access to capital and technology, state backing certainly helped. Of course, the evidence was not conclusive; size and maturity of a firm are also advantages in raising capital as well as making contact with MNCs.

Management and Control

A private sector management culture has been developed in Singapore public enterprises (PEs), acquired largely as a result of exposure to international competition and MNC management and technology. Singapore PEs in turn act as local leaders as regards corporate behaviour, and themselves adopt some aspects of the character of their teachers --the government and MNCs. Governmental controlling agencies were at least 'once removed' from PE operations through the intermediation of holding companies (Temasek, in Keppel's case). This therefore means that any political influence was relatively remote. Business acumen can sometimes be developed to a higher level in PEs than in domestic private enterprise in less-developed countries (LDCs). The general expectation in advanced societies is that the private sector is more developed and government relatively less competent in business, so a government role becomes counterproductive. On the other hand, in some 'technocratic' LDCs the bureaucracy is relatively more efficient, and a government role can even be essential. Entrepreneurs, expertise, institutions and organization are lacking in the private sector. The best people gravitate to government because that is where they find authority, responsibility and money. In fact, this may contribute to a 'crowding out' effect of indigenous private enterprise because management resources are scarce in emerging societies. The government can become legitimized in a big role. Government initiative is well supported and succeeds while private enterprise is left behind. The State becomes the responsive, proactive initiator for new direction, ideas, risks. Success breeds success. In Singapore, as a follower society, new initiatives come from the government, which itself is a model of effectiveness among world governments.

Singapore PEs were led by boards of directors comprised primarily of senior civil servants, with an executive management group where talent was drawn from the private sector. (Table 3 shows Keppel's board of directors.) In Singapore the top achievers are tapped for service in the state's enterprises. Even the private sector leaders of PEs showed a public-spiritedness, which was either nurtured over time or a personal quality that might to some extent be prerequisite to their selection.

Businessmen from the Civil Service did not seem risk averse. Recruitment of an enterprise's top personnel from the Civil Service does not necessarily hamper independence and entrepreneurship largely because these individuals were outstanding professionals of respected competence and key members of the national leadership team. For example, Sim Kee Boon played as large a part in foreign economic relations for Singapore as any chief minister. Michael Porter (1990) contended that "national importance" attracts the nation's top talents, contributing to competitive advantage in an industry. In addition, lavish government pecuniary incentives such as scholarships for civil servant recruits, as well as the prestige of joining an elite team, can enhance the staffing function. Scholarship holders returning to Singapore give PEs an edge over private companies in management talent.[1]

Although Keppel's top management had a stable membership from inception, major changes occurred in 1984 and 1985. The finance director resigned in 1985, after 16 years with Keppel, and was followed out by another longstanding board member. They had been part of the three-member team (along with Managing Director Chua Chor Teck[1]), which went to London in June 1983 to negotiate the Straits Steamship acquisition. Journalists noted the coincidence that the resignations occurred about six months after George Bogaars' own resignation, and they were quick to link the resignations to the widely publicized Keppel-Steamers deal. However, Bogaars' retirement was more likely an indication of two needs: a need for a new leader to speed rationalization of shiprepair, and a need for retirement of Singapore's first generation of leaders. (Also, Mr Bogaars was in ill-health.)

Networking

Another characteristic of the leadership at top levels in Singapore is strong evidence of a network of mutually supportive relationships, including cross-directorships. Their collusive capacity impinges on national decision-making, not just cooperation in business opportunities (refer Table 3 for the following discussion which elaborates particular relationships).

Both George Bogaars and Sim Kee Boon were moved to Keppel from their post as Head of the Civil Service, which suggests an intimate prior knowledge of important people and positions in Singapore. Many instances of opportunities for collaboration were possible, all of which demonstrate a cooperative network in the best interests of 'Singapore Inc'. For example, Bogaars was also on the board of Sembawang Shipyard, a surprising, even illegal arrangement by American standards of business practice. Certainly interlocking directorates among competing shipyards manifests a national system of cooperative competition.

Bogaars' chairmanship of National Iron & Steel Mills would have provided helpful contacts in a Keppel acquisition reported on 29th June 1983: Keppel Shipyard bought a 10 percent stake in National Oxygen Pte Ltd, of which National Iron & Steel was the majority shareholder. Bogaars' dual chairmanship similarly contributed to Keppel becoming Singapore's leading steel fabricator. Furthermore, this steel-making capacity coincided with a national need which had emerged simultaneously. There had been a steady trend in Singapore towards more use of steel as a structural material for high rise buildings, and major government buildings were constructed in the 1980s, including the MAS (Monetary Authority of Singapore) Building, the Treasury Building and the Ministry of Environment Building. Keppel's development of a steel fabrication capacity seemed to reflect an uncanny ability to see emerging national (and notably government) needs.

Other Keppel board members had intra-government connections which were obviously useful. Billie Cheng was a director of Port of Singapore Authority (PSA), which institution worked closely with Keppel. Ng Tee Geok was a Post Office Savings Bank (POSB) director, whose expertise would be helpful for the joint POSB-Keppel acquisition of Malayan Motor and General Underwriters.

The rationalization exercise and prospective move to Tuas Yard illustrate Keppel's close working relationship with other government enterprises, particularly PSA and Sembawang Shipyard. With PSA, Keppel had coordinated many important decisions, since its initial startup agreement negotiated through the Ministry of Finance. There was also the transfer of the old yard to PSA, where evidently the Ministry of Finance was not required to be directly involved in negotiations as it had been in 1968. Keppel received new facilities in the transfer, where development costs to be footed by PSA were considerably higher than the net book value of the old yard, which seems much more generous than might usually be expected of an 'eminent domain' type of land acquisition. (Of course, PSA might have anticipated that even the new facilities would be theirs again someday, as it turned out).

There were many more indications of a cooperative network in Singapore's PE leadership team, apart from the obvious fact that they were colleagues in a small Civil Service Corps. Intricate networking was evident in the Keppel Group's business in China. Keppel had worked closely with Sembawang Shipyard, a major national shiprepair firm (then 74% government-owned), on a contract in China which commenced in the mid-1980s. Keppel and its subsidiary Far East Levingston (FELS) also joined in a nine-member consortium of Singapore companies to operate an offshore supply base in China. The consortium was led by Intraco, the partially government-owned trading company.

Concerning any advantage of state-owned enterprises in working with socialist countries such as China, a Keppel executive said that the Trade Development Board office in Beijing had a good relationship with government companies, and helped in "arranging meetings and bringing to our attention Chinese opportunities." The Chairman of the TDB was also Chairman of Intraco. That Chairman and Sim Kee Boon, who was Chairman of FELS and

Keppel since 1984 (and the first Chairman of Intraco), were among the entourage accompanying Singapore's Second Deputy Prime Minister on a trip to China in May 1986.

Keppel, the Trade Development Board and Intraco were an effective team of enterprises whose leaders were evidently very close. Sim Kee Boon had once been Intraco's chairman. Partly through Sim's chairmanship of the Civil Aviation Authority of Singapore, the 'China connection' also overlapped with other key Singapore government interests in its airline and airport.

All these relationships support the notion that government companies have an advantage in obtaining contracts with other governments' enterprises, particularly in socialist countries. The Keppel case narrative illustrates how business in China and elsewhere was often promoted and coordinated at top governmental levels. There might be a downside: when operating outside of Singapore, government support may be less helpful and even create a dependency which ill-prepares Singapore firms to compete on their own overseas where the government is not around. Also, politicians or bureaucrats can turn against the deal --as when local authorities in Suzhou connived to direct business away from the Singapore project arranged through China's central government. But generally, Singapore PEs showed remarkable initiative.

"You have to get right to the top for things to happen", Sim observed after a business meeting in 1994 with the President of Vietnam. (See Business Times, 24th April 1994) When the US Navy pulled out of Subic Bay in the Philippines at the end of 1992, Sim had liaised with President Fidel Ramos about it. In August 1992 Keppel held talks with the mayor of Subic Bay who accompanied the Philippines Foreign Minister on a trip to Singapore. The Minister described himself as his country's 'chief salesman'. Keppel acquired a stake in the project to reactivate and operate the former naval base as a shipyard. At the official inauguration in January 1995 a Philippines minister called the yard a showcase of the country's privatization program; a Singapore minister spoke of complementary linkages between the two countries.

One clear advantage of PEs lay in the power of management. Power in this case was partly a result of the PE being a large company, dominant on the local scene, but also top managers were part of the national leadership team. Perhaps the most telling instance to show management 'clout' was the expulsion from Singapore of Jardine Fleming, alleged by pundits to be a consequence of giving bad advice to Keppel.

Keppel's innovation in finance and its excellent non-financial performance in such areas as product quality, marketing effort, and labour relations were indicative of its position of national leadership in business management. These are examples of the many fields where major PEs played a role in the 'state entrepreneurialism' that characterizes the Singapore PE system.

Growth and Diversification of PE

Over-investment by PEs is predicted based on the original hypothesis (Musgrave & Peacock, 1958) that states and their agencies are more compelled by pressures to spend than to save. The validity of this rule as it concerns a state's enterprises might be tested by observing any tendency to expand capacity even when profits are declining. Table 2 data shows, roughly, returns on investments made in, for example, fixed assets. Recall that Keppel's capital budgeting for the Tuas project anticipated a ROI of 14%. During the ten-year period from 1974-1983[1], while profit before tax actually declined (not to mention a loss in 1985 corresponding with a severe decline in all major businesses of the Group), the shipyard's net fixed assets grew at 16%, reflecting the buildup at Tuas. But for the full 22-year period 1974-1995, while the profit level stagnated, fixed assets grew only in fits and starts, at 6% overall, which seems hardly enough to cover replacement costs. Thus, any tendency to over-invest was not consistent.

The entire case history did indicate a growth orientation but where there was a prospect of profitable results. Shipping provides an instance where unprofitable operations were eventually divested. Over-investment is more likely to be a problem if the PE tends to have geriatric or other uncompetitive operations, but investment in shiprepair was still justifiable on commercial grounds despite recurrent adverse business cycles.

PE diversification strategies are predicted in the literature to be relatively conservative, that is, they expand productive capacity but tend to remain in their original industry. Resistance to divestment is also seen as typical of PEs ('barriers to exit'). (Sikorski, 1993) Even in hard times Keppel has not attempted diversification out of its main line of business, of course. Certain other publicly traded Singapore PEs such as the national shipping and bus companies, despite experiencing declining markets for their shares, have still not divested from stagnating but essential industries. Rather, all these companies have modernized and kept their traditional businesses viable.

Keppel was not content to rely on the marine industry for the long term, undertaking dramatic diversification programmes earlier than the major downturn in traditional activities. The Keppel Group was inclined even to compete in financial and telecommunications services. The government never publicly dissuaded them from such plans.

In selecting new investment priorities, the 'insider' position of PEs in the Singapore system may give them a superior planning capacity. They can plan in accordance with national strategy, to which strategy the enterprises' leaders themselves may have contributed. The then Prime Minister Lee Kuan Yew observed, "the general managers of these government-owned companies at present are from a tight circle of administrators who share the thinking of the policy-makers. They share the economic philosophy of the government and have a firm grasp of the rationale for various policies since they are privy to background problems so that they can interpret signals accurately, and react swiftly and flexibly." (Business Times, 12th June 1987) In contrast, Western multinationals often would not know what their host government has in mind for the future --let alone are inclined to go along with government plans. Singapore's small size and government-business networks make this an advantage, where it may be counterproductive in other countries, especially if government leadership is erratic or the constituency/enterprises less amenable.

PE diversification often reflected a subtle policy to ensure national business opportunities were exploited by national enterprises. As the domestic telecommunications market opened to international service providers, Keppel entered the bidding in partnership with multinationals. On 24 May 1995 a Keppel-led consortium --which included another partially state-owned enterprise Singapore Press Holdings along with Hong Kong Telecom and Cable & Wireless-- was one of the bidders to be awarded a license to provide mobile telephone services in Singapore when the national monopoly ended in 1997. All of the original four bidders were notable for their lead participation by Singapore PEs.

It would appear that Keppel's ambition to be a conglomerate had a tenuous connection with the initial objectives of the company when originally set up by the government. Nevertheless, once Keppel was no longer relied upon for leadership in an industry of national importance (which shiprepair was and, according to Sim Kee Boon, always will be), the government did not restrain Keppel from a rather free-wheeling diversification strategy. Even privately-owned companies are not always so lucky to have such business flexibility.

The Straits Steamship (SS) deal probably did have adverse repercussions at high government levels, though this is not public information. Concerning any need for advance approval of diversification moves, asserted, *As of 1983, plans for expansion and diversification of state companies appear to require the approval of the First Deputy Prime Minister (Goh Chok Tong, The Far Eastern Economic Review, 1983).*

However, the SS decision did not reflect any evidence of such high level scrutiny in advance. A confidential memorandum was circulated by the government in 1984 or 1985 (exact date unknown) advising PEs to exercise caution in diversification outside their main line of business. This may have been in reaction to Keppel's own expansion policy, which by that time had included what the local newspaper termed the "ill-fated" acquisition of SS. (It should be noted that SS profitability did recover by 1985 to vindicate the Group for its acquisition decision).

Keppel's diversification was completely compatible with the national interest. Even the very commercial SS businesses contributed to national development. SS property development was in line with activities of the old Housing and Urban Development Corporation and other major government building projects, and SS leisure interests were connected with travel, that is, tourism, which was a major government concern. When the Singapore government began a push in the late 1980s to create Singapore-based multinationals, property development was a major source of regional business. SS spearheaded the S$30 billion Singapore-China township development in Suzhou, the 1996 Annual Report noting: "Leaders in China and Singapore are pleased with the level of achievement in terms of physical completion and investments."

During the 1984/85 slump, Sim Kee Boon mapped out the future direction of the Keppel Group in consultation with the majority shareholders, Temasek. Temasek and its state-owned shipyards, primarily, planned and implemented the national rationalization exercise. A Keppel executive, in response to a question concerning rationalization, had responded that the Managing Director is the decision-maker, and the decision is made by the enterprise alone, that is, not in consultation with the government. So we must distinguish between company-wide and country-wide rationalization. A national need to rationalize the shiprepair industry seems to have been seen as long as three years earlier. Prime Minister Lee Kuan Yew himself spoke about the matter in his National Day speech in August 1985, and other comments at the same time. Mr Lee said, "They have taken about three years to reach an agreement in principle between all major shipyards to reduce capacity by one third. More time should not be wasted --the agreement should be implemented quickly." It is difficult to see evidence of such advance notice or indeed any real adjustment in planning so long ago --perhaps the PM meant three months, not years. But the point is, the decision was actually made through consultations at a national level and then it was left to the various enterprises to work out details.

RECAPITULATION

The government role in Keppel did not hamper business activities, in fact seemed to have the opposite effect, as PE entrepreneurial abilities were enhanced, rather than encumbered by bureaucracy or other predicted difficulties. Civil servants behaved much like ordinary businessmen, except they were more than that; the civil servants were Singapore's professional elite and key members of the national leadership team. The government invariably played a proactive role.

Nor was entrepreneurialism lacking. The president of one of Singapore's larger PEs argued to the Straits Times (14th March 1993) that a kind of "corporate entrepreneurialism" prevails in the enterprises which may be superior in concept to the traditionally revered virtue of individual entrepreneurialism. Large organizations (or a network of firms) have certain advantages in terms of resources available. Leverage is more obtainable externally since financiers are more ready to back larger businesses (especially state-owned), and there is a 'critical mass' of cash, R&D and other assets, and a pool of talent. An entrepreneur heading a strategic business unit within a larger organization, given autonomy to do business, can be innovative and is often more able than small-scale entrepreneurs to exploit a good idea.

A resource advantage for PE is suggested by the original provision of assets and financing for Keppel, as well as the quality of their personnel resources. Most important was their position in the cooperative government team of people and enterprises.

There was ample evidence to demonstrate the existence of a network of cooperative relationships and institutions in the Singapore PE system. The major rationalization of shipyards, opportunities in China, acquisitions of facilities, and other internal dealings within the system manifested a nation-wide team effort. Without doubt, the system as a whole benefited. It was also apparent that the government role in its enterprises can be characterized as 'promotional' and oriented towards national economic development (as opposed to distributional and regulatory in approach). This was evident from start-up, through hard times and in all business relationships. Primary government attention was accorded to long-term viability, human resource development, and international competitiveness, rather than such concerns as provision of jobs, subsidies, or other services to voters.

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