

Round - 4

Confidential



Asia Case Research Centre THE UNIVERSITY OF HONG KONG

ALI FARHOOMAND

ORIENT OVERSEAS CONTAINER LINE (OOCL): SAILING THROUGH CHOPPY WATERS

Introduction

As the extended Tung family gathered for a traditional Chinese New Year dinner early in February 2013, Tung Chee Chen allowed himself to feel quietly satisfied. As joint owner, Chairman and Chief Executive of OOIL Holdings ("OOIL"), he had enjoyed watching revenues at OOIL increase during 2012. Unlike many of his competitors, he'd only had one year of losses recently. Among his close family were his brother, a previous chairman and retired senior politician; two nephews, both executive board members; and his brother-in-law, also an executive board member. OOIL was listed on the Hong Kong Stock Exchange and was well established and respected, both within the territory and in the many countries where it operated, although ownership still remained in the family.

Yet there were also concerns in his head. The economic recovery in the West was slow and stuttering and there was widespread agreement that even China's growth rate would slow. Would OOIL, a mid-sized shipper, ever be competitive against the mega carriers? Would protectionist pressures reduce the demand for international transport? And thinking long term, what would be the effect of shifting populations, manufacturing patterns, technological advancement and climate change on his company? Could Tung retain the competitive edge of his iconic brand? Moreover, how best could he devise a succession plan?

Industry background

The shipping industry was split into 'dry bulk' (the movement of raw, loose commodities such as coal, iron ore and corn), 'tanker' (liquid fuels such as crude oil, gasoline and natural gas) and 'containerized'. The concept of containerization – the packing of goods into standardized boxes – had been used since the industrial revolution. However, the steel fabricated boxes that were so familiar at modern docks had only been in use since the mid-1950s due to entrenched

Dr Tim Summers prepared this case under the supervision of Professor Ali Farhoomand for class discussion. This case is not intended to show effective or ineffective handling of decision or business processes. © 2014 by The Asia Case Research Centre, The University of Hong Kong. No part of this publication may be reproduced or transmitted in any form or by any means—electronic, mechanical, photocopying, recording, or otherwise (including the internet)—without the permission of The University of Hong Kong. Ref. 145/545C

1
best to devise a succession plan
How
5
1) Ever be competitive
2) Protectionist pressures reduce demand
3) Effect of shifting
4) Retain competitive edge

one year losses
advantage
success
slow

opposition from regulators and unions in the West. It was only the Vietnam War that finally established the container as a **worldwide standard for shipping**.¹ Containers **greatly simplified** and **sped up loading and unloading operations**. They also allowed simpler intermodal transport, thus **resulting in significant cost savings**. Containers tended to be used for manufactured or high value goods rather than raw materials, and demand for containerized transportation reflected different sectors of the economy through dry bulk shipments. As a result, benchmark indices for the costs of dry bulk and container transportation were **watched closely for insight into economic health**.

slow economic growth

Many shipping companies also operated their own ports, storage or land transportation companies. Decisions about when to scrap and renew ships allowed operators some flexibility with cash flows. Larger ships were more efficient for fuel, human resources and dock operations. Fuel costs could be reduced by sailing slower, if there was less demand for capacity. Another way to manage commitments was through chartering rather than owning vessels: chartered ships could accommodate demand surges or delays in between new vessel deliveries, without increasing the size of the balance sheet.

ways to improve

Climate change offered threats (in the form of greater number of storms and rising sea levels) and opportunities (for example reduced arctic ice opening shipping lanes). Environmental regulation was generally light in comparison with many industries, partially because much of the time at sea was outside any national reach. However, voluntary codes of practice were in place to counter public concern about emissions from typically high-sulfur fuel.

Climate factors

History of the Orient Overseas Container Line

Early years

Tung Chao Yung's story fits many of the stereotypes of a self-made man. Born in 1911 and becoming an apprentice seaman at the **age of 17**, by 1936 **he had his own company**. By the early 1940s his ships were sailing between China and the western United States. His companies **relocated to** Hong Kong during the Sino-Japan War, then to Taiwan as the Communists took power in the People's Republic of China ("PRC") in 1947. His ships were sailing to Europe and across the Atlantic to the Eastern US in the late 40s under the "Orient Overseas Line" banner.

Own ships

Profiting from warfare was another corporate fairy tale. Once the Pacific War had ended, Tung C Y's companies **bought 54** decommissioned transport ships from the US government. At the start of the Korean War, **the company became the main ocean carrier between the US and Korea**. During the **Suez crisis** in 1956, shipping on the Asia to Europe route was diverted around the longer Cape of Good Hope route, **causing a shipping boom**. Then with the start of the Vietnam War, the US again needed trans-Pacific cargo transport, accelerating the acceptance of containerized transportation.

Container shipping

Tung re-launched his company as **Orient Overseas Container Line ("OOCL")** in 1969, and in 1972 it became the **first** independent Asian shipping line to carry containers from Asia to New York. Containerized cargo had taken a long time to become accepted, but by 1969 the convenience of loading and transfer to road and rail was eroding demand for traditional loose packed storage. Container shipping was about to enter a boom period, and **OOCL was well placed to take advantage of customer demand**.

1st

¹ Levinson, M., 2006. The Box. Princeton University Press.

Another first came in 1971 when OOCL launched its first purpose-built container vessel with a capacity of 1,200 TEU.² Commissioning its own ships gave OOCL the opportunity to use more efficient transportation compared with the pre-used and adapted vessels it had previously owned.

Own ships
listing

A listing of Orient Overseas Container (Holdings) Limited ("OO(H)L"), which owned OOCL and other smaller companies, on the Hong Kong Stock Exchange ("HKSE") in 1973, and a spate of foreign acquisitions, ensured that the company grew rapidly.

Non-container shipping

Despite the company's stated concentration on container shipping, the company was involved in other shipping sectors as well. Tanker and bulk operations continued, though worries about the oil crisis in the '70s meant operations were patchy and in 1974, there were worries about new pipelines. Tung bought the largest supertanker ever built, the "Seawise Giant" in 1981 for the transport of crude oil.³

War Pipelines
Oil drilling

The North Sea off-shore oil and gas industry was also attractive. By 1983, the company owned three semi-submersible drilling rigs with two more under construction, and the business "contributed significantly" to the group's overall performance.⁴

helped

Adding to the legend was a piece of popular culture. In 1972, a cruise ship owned by OOCL, formerly the "RMS Queen Elizabeth", sunk in Hong Kong's Victoria Harbor, where it was used as a part of the set for the James Bond movie "The Man with the Golden Gun".

Tung Bond

Property

No Chinese tycoon is complete without a substantial property business. In 1982, the company bought property interests in New York City, Sydney and Singapore (the "Tung Centre"); by the following year, the first two were fully let. More in line with its other operations, the company also had interests in terminals and ports in several locations around the world.

Marine Insurance

In 1982 OOIL bought a London-based insurance group, "Scottish Lion Insurance Co Ltd", which was held until 1987.

Passing through the generations

Tung Chao Yung passed away in 1981, handing Chairmanship over to his oldest son Tung Chee Hwa. OOC(H)L leant hundreds of millions of dollars to the "Tung Private Group", a collection of private companies controlled by Tung C H. In addition there was extensive borrowing in 1982, in a combination of ordinary, preference and deferred shares. In 1983 the company renamed itself Orient Overseas (Holdings) Ltd ("OO(H)L"), the dropping of the word "Container" possibly demonstrating its diversification strategy and showing Tung C H's stamp of authority.

Borrowing
Share issue

² The TEU is a measure of container capacity, equal to a standard eight foot wide by eight and a half feet high construction with a length of 20 feet. Today, the predominant container length is 40 feet, each with a capacity of 2 TEU, and the largest vessels have a capacity of over 18,000 TEU.

³ Unfortunately the Seawise Giant was struck and sunk by missiles launched from an Iraqi warplane in the Strait of Hormuz in 1988.

⁴ OOIL, 2003. Annual Report

The Tung Private Group, flirtation with bankruptcy and capital injection

The Tung Private Group consisted of 33 companies, all in shipping industries, all that had received unsecured loans from OO(H)L. All except six of the loans were at zero interest rate, and all except one had no specific repayment date. No detailed description of the loans had been made in previous annual reports.⁵

The crisis became public when OO(H)L missed a debt repayment in September 1985, putting it into technical default. In a letter to shareholders on 22 November 1985, Tung cited an exceptional loss on the sale of vessels of US\$39.2M and an extraordinary provision of US\$165M in respect of loans made to the Tung Private Group.⁶ He went on to say:

In the course of 1985 the OOHL Group's financial position seriously worsened principally as a consequence of the rapid deterioration in the financial position of the Tung Private Group, with which the OOHL Group is closely associated and from whom substantial amounts were owing.⁷

Working capital was provided by a US\$150M loan from the Hongkong and Shanghai Banking Corporation ("HSBC") to allow operations to continue, some directors were replaced and Hambro Pacific Limited, financial advisors, were brought in to organize restructuring.

Henry Fok Ying Tung stepped in to organize an equity injection, presumably with money from the PRC via a Liberian company "Treelane Co Ltd".⁸ The shares of OO(H)L were suspended for a year, and in 1987 the company was again re-launched, listing on the HKSE (ticker 316 HK) as a holding company for 65% of OOCL and other smaller ventures.⁹ The remaining 35% of OOCL and various remnants of the Tung Private Group were held by Henry Fok, who also bought 12 new vessels from OOIL for an additional US\$20M.

Adding to the company's problems, the whole industry went through a period of low profitability in the first half of the '80s with new capacity entering the market (for example, during 1983 North Pacific container capacity increased by 20%). Fuel prices were volatile, favoring at one point cheap, slow and efficient vessels and a few months later faster, hungrier ships. How a particular company fared depended on its fleet composition. Many competitors went bankrupt, including in 1986 United States Lines, which at the time was the largest bankruptcy in US history.¹⁰

However, in the latter years of the decade, OO(H)L found its way again. Between 1987 and 1990, it sold off non-core assets such as the Tung Centre, offshore operations, some tankers, some interests in Hongkong International Terminals ("HIT"), the UK insurance and underwriting services and gas carriers. The cash generated from these sales, plus suspending dividends, let OO(H)L increase its holding in OOCL to 75% by 1990, and still reduce its net debt to equity to 1.9 times (1989) from 4.9 times at the worst point.

⁵ A summary of the companies, the amounts owing and the loan rate is given in the notes to the accounts in the 1985 annual report

⁶ Since October 1983, the value of the Hong Kong dollar has been pegged at HK\$7.8 = US\$1 through the currency board system. However, the market rate exchange to the US dollar fluctuates marginally.

⁷ Letter to shareholders, Tung C H, 10 Nov 1986

⁸ Journal of Commerce, 2 Sept 1986. 2 Ship Firms in Asia Gain Fiscal Relief. [Online] Available at: http://www.joc.com/2-ship-firms-asia-gain-fiscal-relief_19860902.html; Webb, D., 2004. D-graded PERL of the Orient. [Online] Available at: <http://webb-site.com/articles/PERLdecision.asp>

⁹ OOIL, Annual Report 2007.

¹⁰ Levinson, M., 2006. "The Box". Princeton University Press.

HSBC loan
Default

Loans from

New equity

Restructuring
Oil prices

Sold off

Jacky Tung

Return to profitability

In 1992 the company was again **relisted with its present name, "OOIL"**. Debts (preferred shares and loan notes) were paid back at between 70% and 75% of their face value. In 1993, the company said it would "progressively increase **investments in the PRC during the 1990s**", possibly through the influence of Henry Fok, and was looking to join the **Trans-Pacific Conference, an industry group**.¹¹ Payments of dividends to ordinary shareholders resumed. In 1994, the bulk of the 16-page long Chairman's Letter consisted of objectives for the coming year rather than a review of the previous year's operations, a sign of optimistic forward planning.¹² The discussion was around trade alliances and optimizing efficiency of operations, with strategy in the PRC being brought to the fore. Mr Tung described his policy towards investing in the PRC:

Changes made

Over the years we have created value by acquiring investments in a variety of businesses, holding them until they are mature, disposing them at a profit and reinvesting the proceeds in new businesses.

Our strategy... is based on our confidence that... the PRC will become one of the largest economies in the world by the turn of the century.

Production of goods
more mature

OOIL was looking into new industries, some unrelated to shipping: **property development** (as a minority shareholder with partners from the PRC), including the prestigious Beijing Oriental Plaza project in the heart of the Chinese capital; a food and beverage business in Shanghai; scrap steel. In 1995, Tung reported the company had acquired 80% of a **container terminal in New York**, and in 1996, that the company was involved in three more real estate developments in the PRC.¹³

Tung **CH resigned in late 1996** to stand for the post of **Chief Executive of Hong Kong**, to which he was appointed at the handover back to Chinese rule in July 1997.¹⁴ On his departure, his brother **Tung Chee Chen**, previously Vice Chairman, took the helm.

Big Port Short
Booker Jones over

In his first Chairman's letter Tung C C stated that in the international transportation business, "Our company has been a **leader in the containment of costs and operational efficiencies**."¹⁵ Despite the damage done by the start of the Asian Financial Crisis, he confidently predicted that OOIL "has weathered worse storms and the Group is firmly on course to meet its goals for the 21st century".¹⁶

The start of the 21st century looked promising; but the transition of the global economy into another recession at the start of 2001 led to a disappointing year. The start of 2002 was the worst business environment for many years, with the terrorist attacks in September 2001 adding to fears of a steep recession in the US, and a stock market slump following the popping of the internet bubble. Surprisingly though, the second half of 2002 provided a turnaround, with volumes exceeding expectations and new vessel deliveries being lower than expected. This point turned out to be the start of a multi-year period of high profitability that **lasted until 2008**.

2001-2005
2002-2008-Profit

During 2003, volumes and rates increased, leading to an "exceptional year". The rise in both volumes and rates charged to customers continued through 2003. One of Tung's major concerns

¹¹ OOIL, Annual Report 1993

¹² OOIL, Annual Report 1994

¹³ OOIL, Annual Report 1995, OOIL, Annual Report 1996

¹⁴ In 1997, the previously British colony reverted to the PRC, with its own Chief Executive as nominal head of state, under the

'One country, two systems' banner

¹⁵ OOIL, Annual Report 1996

¹⁶ OOIL, Annual Report 1997

Leads for New for 5 ships to register

was the length of time it took to buy additional vessels. The order book at shipbuilders had increased from the industry norm of 1.5 – 2 years to 3.5 years.¹⁷ Fortunately, OOIL was able to rely on chartered capacity to meet demand. Chartering gave shippers the option to rent additional capacity for either long or short term, giving an essential degree of flexibility to respond to changes in demand and pushing the risk of varying shipping volumes to the charter ship owners.

The used-vessel market was frequently used by all operators. Older, cheaper, smaller or slower vessels could be substituted into less popular routes and newer, larger vessels for the most popular and competitive routes, where the higher efficiencies of these ships reduced costs. The company returned value to shareholders by buying back shares and by issuing bonus shares. In 2004, revenues and profits increased again. Tung C C was named DHL/SCMP Business Person of the Year, and gave a speech crediting OOIL's performance between the company's IT systems and the quality of its employees.¹⁸

Cons. competence

At the start of the decade OOIL had been reasonably diversified, with 20.7% of its revenues from property and 12.5% from terminals in 2002. A strategic decision was taken to return the company to core businesses and the peripheral businesses were gradually sold off. Starting in 2006, four North American terminals were sold to the Ontario Teachers' Pension Plan Board for US\$2,350M, with much of the proceeds returned to shareholders as two special dividends. Then in 2010 the bulk of Orient Overseas Developments Limited ("OODL"), the PRC property businesses, was sold for US\$1,005M, with about US\$250M returned to shareholders, again via a special dividend. By 2011, less than 0.5% of OOIL's revenue came from activities other than container transport and logistics, and OOIL and OOCL were effectively the same entity.

Cost of property

↓ Property sold reduced off

Despite the incessant rise in revenues, cost reduction became increasingly important throughout 2005 and 2006. Many costs were largely outside the company's control, such as terminal fees, fuel and charter costs, and risks from movement in foreign exchange ("FX") rates.

Turmoil in the Global Financial Crisis

2007 was an especially good year - in addition to recording gains from the terminals sale, freight volumes and rates were up as the industry pursued "rational" allocation of capacity, i.e. they competed for profitability rather than market share. Profits were up, and the company paid down debt to the extent that it was net debt-free by year end. In the Chairman's letter, Tung noted the slowdown in housing in the US in one sentence.¹⁹ However, the tone for the following year was markedly different, with the opening paragraph of the Chairman's letter predicting a "protracted downturn for the container shipping industry".²⁰ High fuel costs eroded profitability, and freight rates and volumes declined throughout the year. To make matters even worse, OOIL took delivery of an additional 13k TEU of capacity, with a further 125k TEU on order for delivery over the following three years. However OOIL still managed to increase revenues and return a profit, though it was the lowest profit margin since 2002.

Industry increased capacity but demand

By the end of 2009 the financial crisis was in full swing. Volumes had fallen with recessions in OECD countries and shipping rates also fell as lines competed for the reduced trade. Tung called it "the worst market conditions ever experienced in the container shipping industry" and hinted at widespread financial difficulties among rivals.²¹ Capital expenditure was slashed by

¹⁷ OOIL, Annual Report 2003

¹⁸ South China Morning Post, 2004. C.C. Tung wins top business award. [Online] Available at: <http://www.scmp.com/article/480536/cc-tung-wins-top-business-award>

¹⁹ OOIL, Annual Report 2007

²⁰ OOIL, Annual Report 2008

²¹ OOIL, Annual Report 2009

42% by dramatically reducing expenditure on physical containers and chassis, although expenditure on vessels under construction was almost unchanged. Routes to Europe were diverted round the Cape of Good Hope to save costs from using the Suez Canal.²² The sale of OOCL provided capital with fortuitous timing, but still, for the first time since 1998, OOIL returned a loss.

Loss - 1st
2009

Between 2007 and 2009, net borrowings increased from 0.8% to 32.7% of equity. The average cost of financing thankfully decreased from 2.0% to 0.8%, a result of falling interest rates. The company's investments over the previous years had provided OOIL with a "young, fuel efficient fleet", a great advantage over rivals.²³

OOIL had excess capacity in 2010 as the new vessels arrived with perfect timing, and volumes increased by 15%. Then in 2011 the industry slumped again as hopes for a quick end to the recession faded, particularly in Europe, and fuel prices remained high. In March OOIL placed an order for 132k TEU of new shipping with Samsung Heavy Industries (SHI), although 40% of this was to be immediately leased out on delivery.²⁴

Finally in 2012 a level of stability was achieved with slightly more profitable operations, although increasing competition and cost pressures from operators of the largest, most fuel efficient ships still kept profits way below those in the middle of the previous decade. The signing of a 40-year lease extension for a terminal in California reaffirmed the company's long term commitment to the route, and to the Grand Alliance, since OOIL alone would not be able to fill it. The port was deep enough to accommodate OOIL's newest 13,200 TEU ships, unlike most other North American ports which were restricted to smaller boats.²⁵ Balancing the news of increased Chinese domestic imports and consumption, were worries of a revival in US manufacturing being led by "re-shoring" rather than importing components.

Chung
Shi

Operations

Alliances

OOCL had been involved in several industry alliances over its lifetime, with the most significant summarized in Exhibit 1. The current alliance, the G6 Alliance, is a direct global competitor with the proposed P3 Network.

The P3 Network proposal combined operations of the three largest container companies on three major routes: Asia-Europe, trans-Pacific and trans-Atlantic.²⁶ Unsurprisingly, the move attracted widespread concern for its anti-trust potential, and a meeting of the US, European and Chinese regulators was scheduled for December 2013.²⁷ The capacity of the P3 Network was 6.3M TEU, combined with 3.0M TEU for the G6 Alliance based on total April 2013 values.²⁸

²² South China Morning Post, 2009. OOCL and partners take Cape route to cut costs and capacity. [Online] Available at: <http://www.scmp.com/article/671049/oo-cl-and-partners-take-cape-route-cut-costs-and-capacity> [Accessed 27 February 2014].

²³ Ibid.

²⁴ OOIL, Annual Report 2010; OOIL, Annual Report 2011

²⁵ South China Morning Post, 2012. Orient Overseas signs 40-year Long Beach lease. [Online] Available at: <http://www.scmp.com/article/997521/orient-overseas-signs-40-year-long-beach-lease> [Accessed 27 February 2014]

²⁶ Financial Times, 2011. Container shipping alliances to join forces. [Online] Available at: <http://www.ft.com/cms/s/0/bc219524-2b1e-11e1-8a38-00144feabdc0.html#axzz2suMmqw4n>

²⁷ Financial Times, 2013. Big three container shipping lines' alliance under scrutiny. [Online] Available at: <http://www.ft.com/intl/cms/s/0/44894f4c-642a-11e3-b70d-00144feabdc0.html#axzz2xW4G8QhR>

²⁸ This is only an approximate comparison as only part of each member's fleet would be committed.

The combined fraction of the trans-Atlantic route between the G6 and P3 alliances would be **82%**, giving concern of a duopolistic structure.²⁹

Related to alliance concerns were regulatory issues, especially the **Ocean Shipping Reform Act** ("OSRA") of 1999. This act encouraged the **confidential negotiation** of shipping rates between a shipper and a customer, and was intended to remove anti-trust behavior by cartels, for example the **Trans-Atlantic Conference Agreement**, of which OOIL was a member. The OSRA also leaned towards helping **smaller shippers compete against larger ones**, who could offer volume discounts more easily.³⁰ In practice, it was unclear whether the OSRA made much difference to the competitive landscape.³¹

OSRA helped smaller shippers

Ownership and family connections

OOIL was indirectly majority owned by the Tung brothers Chee Chen and Chee Hwa through trusts (Exhibit 2). Following a peak in ownership at 74.4% in 2003, a rights issue reduced the fraction held by family trusts to 67.8% in 2004, slowly rising to 68.7% in 2012.³² Two of Tung C H's sons were on the executive board of OOIL: Andrew Tung (CEO of OOCL) and Alan Tung (Acting Chief Financial Officer of both OOCL and OOIL). **Roger King**, who is married to Tung C C and Tung C H's sister Alice, also sat on the board as a non-executive director.

Business areas and Technology

Following from Tung C Y's insight in the late '60s, container shipping became the core of OOIL's operations. In February 2014, OOIL was the **13th largest container carrier** worldwide in terms of capacity, part of a **'bulge bracket' of firms behind three global heavyweights**.³³

Apart from owning and operating shipping liners, corporate interests at the time of writing were OOCL Logistics, which manages sourcing supply chains; container terminals, including exclusive terminals in California and Kaohsiung, Taiwan; and OOCL China Domestic Ltd, managing road, rail and waterway transportation in the PRC. OOIL included all these operations in the financials for OOCL and **did not break out their individual contribution to results**.³⁴

Holding it all together was the **IT infrastructure**, where OOIL claimed to be leading the industry since 1993. A decade later, Tung C C stated, "One of the factors that have allowed us to outperform our peers is our ability to provide a state-of-the-art [information-technology] system", perhaps an unexpected statement from an industry that was often viewed as slow-moving and old-world.³⁵ Initiatives included "IRIS-2", a regional information sharing system.³⁶ OOIL licensed IRIS-2 software to other transportation and shipping companies, including COSCO, not only **generating a revenue stream** but also helping to **establish it as a possible future industry standard**.

²⁹ Maritime Executive, Jan 2014. The P3 Alliance Will It Pass Muster With EU Regulators? [Online] Available at: <http://www.maritime-executive.com/article/MarEx-Exclusive-The-P3-Alliance-Will-It-Pass-Muster-With-EU-Regulators-2014-01-29/>

³⁰ Edelman, P. S., 2000. The Ocean Shipping Reform Act of 1998. Currents. International Trade Law Journal.

³¹ Wang, D-H., 2012. Ocean shipping reform act promotes competition in the trans-Atlantic trade route. [Online] Available at: <http://www.sciencedirect.com/science/article/pii/S0967070X12000911> [Accessed 17 March 2014]

³² The Hong Kong Stock Exchange specifies that a listed company must have at least 25% of the total share capital publicly held.

³³ Alphaliner, 2014. Alphaliner - TOP 100. [Online] Available at: <http://www.alphaliner.com/top100/> [Accessed 17 Feb 2014]

³⁴ OOCL Logistics, 2014. [Online] Available at: <http://www.oocllogistics.com/eng/Pages/default.aspx>

³⁵ South China Morning Post, 2004. C C Tung wins top business award. [Online] Available at: <http://www.scmp.com/article/480536/cc-tung-wins-top-business-award>

³⁶ Gemstone/S, 2007. GemStone and Orient Overseas Container Lines - A Shipping Industry Case Study. [Online] Available at: http://seaside.gemtalksystems.com/docs/OOCL_SuccessStory.pdf

In 2000 OOIL launched "CargoSmart", a cloud-based service hosted by HP, for shippers, carriers and other users of logistics operations. By March 2001 CargoSmart had assisted in 200,000 shipments for 2,700 companies, and by 2014 it was being used by over 30 ocean carriers.³⁷

"My OOIL Center" was announced in 2009 as a portal for customers. Customers can view schedules and track their shipments through an iPhone app.³⁸

In 2010, Mr Tung pointed to OOIL's IT capabilities as enabling the company to keep quality of service high while keeping costs low.³⁹ At this time the industry was experiencing a sudden boom after a deep recession, and without clear operational intelligence, it would have been easy to let costs rise with increasing volumes.

Environmental issues

Evidence that OOIL was forward thinking in the environmental area included a carbon calculator (useful for customers who report supply chain carbon footprints) and voluntary participation in environmental certification. While open water emissions were unregulated, increasing attention was turning towards shipping's contribution both to carbon emissions and to other pollutants. OOIL sponsored the Business Environment Council and WWF in Hong Kong, and the international Business for Social Responsibility "Clean Cargo" initiative. Average carbon emissions per TEU-km fell by 1/3 between 2004 and 2014, and average sulfur content in fuel was 25% below the international standard. OOIL also complied with the Vessel Speed Reduction Programs for Californian ports, with the aim of reducing smog-producing NOx emissions close to urban areas.⁴⁰ A full five pages of the 2012 annual report were given over to corporate responsibility issues, including environmental concerns.⁴¹

Many of the modifications taking place at the Long Beach terminal in California, where OOIL had a lease until 2052, involved environmental concerns, especially reducing the need for diesel engines in cranes and ships by providing shore-based electrical power.⁴²

Threats to shipping from greater frequency of storms, often associated with climate change, and operations at ports due to rising sea levels were increasing. However there were mitigating factors, for example a reduction in arctic sea ice was gradually opening shipping routes in the north of Canada and Russia, which had potential for faster routes to markets.⁴³

In the more distant future, the possibility of having crewless or 'drone' ships will mean lighter and therefore more fuel efficient ships, in addition to direct operating cost savings. Until then, crewless ships are not allowed under regulations that specify minimum numbers of crew.⁴⁴

³⁷ OOIL, Annual Report 2001, <http://www.cargosmart.com/>

³⁸ OOIL, 2014. Customer Service. [Online] Available at: <http://www.oocl.com/eng/aboutoocl/customerservice/pages/oocllite20.aspx> [Accessed 20 February 2014].

³⁹ OOIL, Annual Report 2010

⁴⁰ OOIL, 2014. Environmental Care. [Online] Available at: <http://www.oocl.com/eng/aboutoocl/Environmentalcare/Pages/default.aspx> [Accessed 21 February 2014]; California Air Resources Board, Vessel Speed Reduction for Ocean-going Vessels [Online] Available at: <http://www.arb.ca.gov/ports/marinevess/vsr/vsr.htm> [Accessed 1 April 2014].

⁴¹ OOIL, Annual Report 2012

⁴² South China Morning Post, 2012. Orient Overseas signs 40-year Long Beach lease. [Online] Available at: <http://www.scmp.com/article/997521/orient-overseas-signs-40-year-long-beach-lease> [Accessed 27 February 2014].

⁴³ <http://www.thearcticinstitute.org/> gives a good overview of the issues with arctic sailing.

⁴⁴ Bloomberg, 2014. <http://www.bloomberg.com/news/2014-02-25/rolls-royce-drone-ships-challenge-375-billion-industry-freight.html> [Online]

Relationship with business and political leaders

As well as being a fully-fledged tycoon family, the Tung family had access to the highest levels of political power in Hong Kong, the PRC and even internationally. Even before Tung Chee Hwa's transition to politics in 1996, the Chief Secretary of Hong Kong, Anson Chan (who would later become a political opponent), was invited to sponsor (i.e., officially name) a new ship, the "OOCL Hong Kong".⁴⁵ Later that month, Barbara Bush, wife of US President George H W Bush, sponsored the "OOCL America", and ten years later, she sponsored the "OOCL Texas". Four wives of chairmen or CEOs of HSBC had the honor of launching new ships, as did the daughter of the vice chairman of Samsung Heavy Industries (OOIL's largest shipbuilder), the wife of the VP of OTPPB, the wife of the CEO of the Panama Canal Authority, and numerous wives of politicians in the PRC and abroad.

Key to OOIL's emergence from near bankruptcy in the mid-80s was Henry Fok, once described as the most powerful Hong Konger in Greater China. He was later instrumental in Tung Chee Hwa's appointment as Hong Kong's first Chief Executive after the 1997 handover, thanks to his position in the PRC as vice-chairman of the National Committee of the Chinese People's Political Consultative Conference. During the late 1980s and 1990s, before the PRC had joined the WTO or become a global powerhouse, there was widespread and deep suspicion of foreigners (including Hong Kongers) entering China's business space, especially those who had aligned themselves with Taiwan in the 1940s. It was likely that, without the highest level patronage that Mr Fok was able to give to OOIL at the time, it would never have been able to enter the Chinese market so early and grow so large in the Chinese market.

Mr Fok's role in re-establishing relations with the PRC was likely the most important, but there were countless other relationships that had to be handled with skill. For a company that started in the chaos after the WW2 defeat of Japan and the Chinese revolution, OOIL understood diplomacy very well. The South China Sea as well as the Western Pacific had numerous territorial disputes, and not being overly aligned with one country or group and showing the appropriate 'face' or respect in dealings with all sides was essential.

After leaving government, Tung C H continued to be active in business groups and as an advocate for Hong Kong and the PRC, for example by acting as a go-between for the Chinese and US navies.⁴⁶

Revenues, Costs, Assets and Capital Expenditure

Exhibit 3 gives the geographical breakdown for OOIL for 2011 and 2012 for the combined container transport and logistics segments. Asian trade accounted for 70%, in line with the expected macro-economic movement of finished goods from Asia to the West.

Exhibit 4 shows the breakout of costs per item for the past two financial years. Almost half of costs were "cargo costs", while another 21% of costs was related to fuel.

The breakdown in capital expenditure is given in Exhibit 5. Despite the large expenditure, no vessels were actually delivered in 2012, though 10 were expected in 2013 and six more in 2014 and 2015. Although the stated delivery time for 10 13,200 TEU vessels was as little as two years, giving a degree of flexibility in response to economic cycles, some of the deliveries for 8,888 TEU ships had a delay of seven years between order and expected delivery dates, due to OOIL requesting a delay in delivery.

⁴⁵ The Chief Secretary is the head of the civil service, effectively the second most important public position.

⁴⁶ South China Morning Post, 2010. Tung tells US to go easy on Yellow Sea. South China Morning Post, 19 September.

No delay

Can request delay in delivery

The new ships were ordered as a result of expectations of a 5-6% growth in Asia – Europe trade for 2011, according to Stephen Ng Siu-kow, OOCL Director of Corporate Planning.

Using chartered rather than owned vessels also increased flexibility; however, OOIL's fraction of chartered capacity, at 31.6%, was one of the lowest amongst its peers.⁴⁷ One important lesson learned during the financial crisis was the importance of flexibility of vessels:

As operating cost per slot increasingly outweighs capital cost per slot, removing excess capacity in times of weak demand is the better economic alternative to seeking scarce cargo at ever-lower prices

- Tung C C⁴⁸

With lead times for new ship orders longer than the time for the economy to switch from growth to recession, there was always a need for flexible capacity. An interesting development was that 40% of the mega container vessel capacity being delivered from 2013 was immediately leased to NYK of Japan as OOIL rejoined the leasing business.⁴⁹

Exhibit 6 compares the property, plant and equipment assets for the group in 2012 and a decade earlier. Vessels (either operating or under construction) and containers comprised 92% of assets in 2012, compared with 70% a decade earlier.

While shipping is generally considered an asset-heavy industry, 19 of the top 100 container operators had more than 80% of their capacity chartered, including 11 with no owned vessels.⁵⁰ Charter owners may be private or public businesses, shipping lines with excess capacity (like OOIL itself) or individuals or syndicates of individuals looking for a relatively high income from investment in return for taking the risk of leasing out ships.

Buyers and Suppliers

Since OOIL sold the majority of its terminals and property businesses between 2006 and 2010, its major assets were its vessels. There was an active market both for buying and leasing used ships which gave a useful degree of flexibility for matching demand with capacity. At the end of 2012, OOIL claimed to have one of the youngest fleets in the industry with an average age of 6.1 years, which would drop further with the delivery of new capacity.

OOIL's major newbuild ship supplier was Samsung Heavy Industries ("SHI"), which had built a total of 369 container ships for all customers. OOIL's 2011 order of 132k TEU from SHI compared to SHI's total new orders in that year of 1,770k TEU. At the end of 2012, OOIL's outstanding order from SHI compared with an existing owned fleet of 106 vessels with a total of 497k TEU; the largest ships owned at the time were 8,888 TEU.

The other supplier was Hudong-Zhonghua Shipyard (Group) Limited ("HZS"), the largest shipbuilder in China and owned by the state. HZS gave very little disclosure on financials or builds. They were in the process of building six 8,888 TEU ships for OOIL. Exhibit 7 summarizes historical orders.

"Cargo costs" such as terminal costs were only partially controllable by management, typically being set by authorities in the host country. Changing port or onward transportation suppliers

⁴⁷ Alphaliner, 2014. Alphaliner - TOP 100. [Online] Available at: <http://www.alphaliner.com/top100/> [Accessed 17 Feb 2014].

⁴⁸ OOIL, Annual Report 2010

⁴⁹ OOIL, Annual Report 2011

⁵⁰ Alphaliner, 2014. Alphaliner - TOP 100. [Online] Available at: <http://www.alphaliner.com/top100/> [Accessed 17 Feb 2014].

may or may not be feasible, depending on the goods, location and onward transportation links, although these providers were themselves pressured to keep costs low by domestic parties.

Regarding customers, Exhibit 8 shows the concentration of the five-largest buyers and sellers in 2012. In common with the industry as a whole, customers were very diverse, as a particular companies looked for the shipping company that offered the lowest price for a particular route and timing.

Competitors

The container shipping industry was highly competitive and globalized. One company that shared some of the characteristics of OOIL was COSCO (ticker 1919 HK). Like OOIL, a minority of shares was traded in Hong Kong, with the majority being privately held, but in COSCO's case, the owner was the PRC rather than a family. Container capacity was 740k TEU. Exhibit 9 shows the capacity and number of ships for the world's top 15 liner companies.

Another competitor was Evergreen Marine Corporation, registered in Taiwan (2603 TT), which was currently ranked fourth in terms of total container capacity at 866k TEU. They also operated a global container fleet and ran container terminals. Hanjin Shipping, based in Busan, Korea (117930 KR), ranked ninth in terms of total capacity with 604k TEU and NYK Line, based in Japan (9101 JP), ranked 12th with 478k TEU. (Exhibits 10 – 13).

Preparing for the Future

Tung wanted the company to be as well positioned as possible before he passed the wheel to his successor.

Would it ever be possible for OOCL to compete with the virtually infinite resources of Chinese state-owned shippers? Could he alter the company structure to better compete?

What would be the best way to balance the high cost of new, large and efficient ships against the savings they might bring?

Was there a way to move from the traditional boom and bust nature of the entire industry into a more stable existence, without sacrificing the high profits of the good years?

Although OOCL had outperformed its rivals for many years, would the company benefit from expanding into other possible growth areas, as it had done in the past, or should it keep its course steady in the industry it knew best?

Would OOIL be able to avoid the Chinese proverb "Wealth will not go beyond three generations", with the third generation squandering the wealth of the previous two? What would be the best way to pass succession?

As he enjoyed his Chinese New Year dinner, smiling and laughing with his family, Tung Chee Chen realized there were choppy waters ahead, with difficult decisions that still needed to be made.

Handwritten notes on the right side of the page:

- Position before Succession
- 1 mega-carriers
- 2 Protectionist measures
- 3 Chinese State owned
- 4 Boom bust nature of the industry
- 5 Diversify or not
- 6 Succession
- 7 Effecting succession

Handwritten yellow scribbles at the bottom of the page.

APPENDIX 1: BRIEF BIOGRAPHIES**Tung Chao Yung**

Tung Chao Yung (b. 1912, d. 1982) founded the Orient Overseas Line in 1947 as the culmination of several shipping ventures based in Shanghai, Hong Kong and Taiwan starting in the 1930s. In 1969, the company changed its name to Orient Overseas Container Line to reflect the emphasis on container shipping.

Tung Chee Hwa

Tung Chee Hwa (b. 1937) is the eldest son of Tung Chao Yung, and took over the leadership of OOCL in 1981 when his father passed away. He held the post until October 1996, when he left to become the first Chief Executive of Hong Kong following the transfer of sovereignty from the United Kingdom back to the People's Republic of China in July 1997. Through a trust owned jointly with his brother Tung Chee Chen, he owns a majority stake in OOIL.

Tung Chee Chen

Tung Chee Chen (b. 1942) is the Chairman, President and CEO of OOIL Ltd, positions he has held since October 1996. The son of Tung Chao Yung and younger brother of Tung Chee Hwa, he holds numerous directorships of other Hong Kong public companies including Cathay Pacific, Petro China Ltd (the most profitable company in Asia) and Wing Hang bank, as well as several positions at academic and non-profit organizations.

Andrew Tung Lih Cheung

Andrew Tung (b. 1965) has been one of four Executive Committee members since November 2011, having sat on the board since March 2006. The grandson of Tung Chao Yung and Tung Chee Hwa's son, he started work at OOIL in 1993, holding various offices including Director of Reefer Trade. He took a break from OOIL and spent four and a half years as COO at Dragonair, before returning to OOIL as CEO of OOCL.⁵¹

Alan Tung Lih Sing

Alan Tung (b. 1969) is also an Executive Committee member, having sat on the board since May 2005 and the executive committee since June 2013; he is the Acting CFO. He is the younger brother of Andrew Tung.

Roger King

Professor Roger King is the brother in law of Tung Chee Hwa and Tung Chee Chen, having married their sister Alice. He traces his history at OOCL back to 1983, and currently is a non-executive director of OOIL.

Michael Kwok

Michael Kwok is the COO of OOCL, having sat on the Executive Committee since 2010. He joined the group in 1978.

⁵¹ Dragonair's full name is 'Hong Kong Dragon Airlines Limited'; it is partly owned by Cathay Pacific. Dragonair's full name is 'Hong Kong Dragon Airlines Limited'; it is partly owned by Cathay Pacific. Dragonair's full name is 'Hong Kong Dragon Airlines Limited'; it is partly owned by Cathay Pacific.

EXHIBIT 1: MAJOR ALLIANCES OF OOIL GROUP

Year	Alliance	Route	Partners
1975	ACE Group ⁵²	E Asia - Europe	NOL (Singapore), K Line (Japan) and Franco Belgian Line (France)
1997	New Grand Alliance		Hapag-Lloyd, MISC Berhad and NYK
2011	G6 Alliance ⁵³	Far East - Europe	New Grand Alliance plus APL, Hyundai Merchant Marine and MOL
2013	G6 Alliance	Far East – Europe, US East and West coasts	(As above). Scope of operations extended to compete with the proposed “P3 Network” of Maersk Line, MSC and CMA CGM. ⁵⁴

EXHIBIT 2: SHARES, OWNED BY THE TUNG FAMILY AND TOTAL ISSUED (SOURCES: OOIL ANNUAL REPORTS)

Year	Shares with beneficial interest to the Tung family (M)	Total issued shares (M)	Fraction controlled by Tung family (%)
2002	338.6	517.1	65.5
2003	350.0	470.2	74.4
2004	385.7	568.9	67.8
2005	424.3	625.8	67.8
2006	424.4	625.8	67.8
2007	424.7	625.8	67.9
2008	426.4	625.8	68.1
2009	426.4	625.8	68.1
2010	426.4	625.8	68.1
2011	430.0	625.8	68.7
2012	430.0	625.8	68.7

⁵² Ham, H v., 2012. Development of Containerization: IOS Press, Trace, K., 1988. Handmaiden of Trade: A Study on ASEAN-Australia Shipping. NUS Press.

⁵³ Financial Times, 2011. Container shipping alliances to join forces [Online] Available at: <http://www.ft.com/cms/s/0/bc219524-2b1e-11e1-8a38-00144feabdc0.html#axzz2suMmqw4n>

⁵⁴ The Loadstar, 2013. G6 box carriers expand operations to head off P3 threat to east-west trades. [Online] Available at: <http://theloadstar.co.uk/g6-partners-move-counter-p3-plans/>

EXHIBIT 3: OOIL: GEOGRAPHIC BREAKOUT OF REVENUES, US\$1000S

Operating revenue by location:	2012	2011	Change (%)
Asia	4,295,526	3,942,912	8.9%
North America	1,043,213	1,045,918	-0.3%
Europe	887,979	839,130	5.8%
Australia	206,234	158,759	29.9%
Total	6,432,955	5,986,719	7.5%

EXHIBIT 4: OOIL: ITEMS BREAKOUT OF COSTS, US\$1000S

Operating costs by item:	2012	2011	Change (%)
Cargo costs	2,756,490	2,583,723	6.7%
Bunker costs	1,211,705	1,211,635	0.0%
Vessel and voyage costs (excluding Bunker)	1,051,646	945,179	11.3%
Equipment and repositioning costs	774,549	731,142	5.9%
Total	5,794,390	5,471,679	5.9%

EXHIBIT 5: OOIL: CAPITAL EXPENDITURE, US\$1000S

Capital expenditure by item:	2012	2011	Change (%)
Vessels under construction	548,055	444,881	23.2%
Containers	109,897	232,470	-52.7%
Others	126,610	67,252	88.3%
Total	784,562	744,603	5.4%

EXHIBIT 6: OOIL: PROPERTY, PLANT AND EQUIPMENT ASSETS, 2002 AND 2012 (US\$MS)⁵⁵

US\$M	Container vessels	Vessels under construction	Containers	Chassis	Terminal Equipment	Land and buildings outside Hong Kong	Other equipment	Total
2002:	929	164	344	109	223	171	102	2,046
(%)	45%	8%	17%	5%	11%	8%	5%	100%
2012:	3,293	999	1,494	83	-	115	283	6,270
(%)	53%	16%	24%	1%	0%	2%	5%	100%

⁵⁵ OOIL, Annual Report 2012, OOIL, Annual Report 2002

EXHIBIT 7: OOIL NEWBUILD ORDERS, 2002 TO 2012. NOTE THIS DOES NOT INCLUDE PURCHASES OF USED OR CHARTER VESSELS.

Year	Newbuild orders
2002	2 New vessels, size and supplier unknown
2003	4 x 8,063 TEU
2004	6 x 4,500
2005	2 x 4,500
2006	4 x 8,063 and 4 x 4,500 (SHI)
2007	6 x 4,500 (SHI) + 8 x 8,888 (ZHS)
2008	0
2009	0: negotiated postponement of six (of the eight) vessels from ZHS.
2010	2 x 8,888 (ZHS)
2011	10 x 13,200 (SHI)
2012	0

EXHIBIT 8: OOIL: CONCENTRATION OF THE LARGEST AND FIVE LARGEST SUPPLIERS AND BUYERS, 2012⁵⁶

	Suppliers	Buyers
Single largest	9.8%	1.5%
Largest 5	25.1%	4.7%

EXHIBIT 9: CAPACITY AND NUMBER OF SHIPS, TOP 15 GLOBAL CONTAINER SHIPPING LINES⁵⁷

Rank	Operator	Total TEU	Ships
1	APM-Maersk	2,676,479	573
2	Mediterranean Shg Co	2,423,573	486
3	CMA CGM Group	1,525,975	426
4	Evergreen Line	866,536	196
5	Hapag-Lloyd	766,475	154
6	COSCO Container L.	764,064	154
7	APL	642,722	118
8	CSCL	612,616	132
9	Hanjin Shipping	604,676	104
10	MOL	598,329	117
11	Hamburg Süd Group	494,395	110
12	NYK Line	478,835	106
13	OOCL	473,134	88
14	Yang Ming Marine Transport Corp.	390,654	88
15	Hyundai M.M.	370,602	61

⁵⁶ OOIL, Annual Report 2012

⁵⁷ <http://www.alphaliner.com/top100/> [Accessed 30 April 2014].

EXHIBIT 10: EVERGREEN MARINE REVENUES, US\$1000S⁵⁸

	2012	2011	Change (%)
Marine freight income	4,337,407	3,545,860	22.3%
Others	320,365	183,220	74.9%
Total	4,657,771	3,729,080	24.9%

EXHIBIT 11: HANJIN SHIPPING REVENUES, US\$1000S⁵⁹

	2012	2011	Change (%)
Container	5,719,591	5,054,036	13.2%
Others	4,455,006	4,115,438	8.3%
Total	10,174,597	9,169,474	11.0%

EXHIBIT 12: NYK REVENUES, US\$1000S⁶⁰

	2013	2012	Change (%)
Containers	4,638,821	5,005,654	-7.3%
Other	15,474,569	16,813,178	-8.0%
Total	20,113,390	21,818,832	-7.8%

EXHIBIT 13: SUMMARY OF OOIL AND FOUR COMPETITORS, MOST RECENT ANNUAL RESULTS. SOURCE: BLOOMBERG, EXCEPT * ⁶¹

Name	Capacity (kTEU)	Profit margin (%)	D2E (%)
OOIL	452	4.6	63.9
COSCO	757	-10.8	376.5
Evergreen Marine	865 *	0.8	53.5
Hanjin Shipping	604	-6.9	618.4
NYK	421 *	1.0	198.5

⁵⁸ Evergreen Marine. Consolidated Financial Report 2012; 1 US\$= 30.278 TWS, 31 Dec 2011: 1 US\$= 29.0034 TWS, 31 Dec 2012

⁵⁹ Hanjin Shipping. Annual Report 2012, Hanjin Shipping report these values in US\$

⁶⁰ NYK. Annual Report 2013; NYK reports at the end of March. these results are for the twelve months ending 31 March 2013 and 31 March 2012 respectively; 1 US\$= 82.8559 JPY, 31 Mar 2012; 1 US\$= 94.3203 JPY, 31 Mar 2013

⁶¹ Alphaliner, 2014. Alphaliner - TOP 100. [Online] Available at <http://www.alphaliner.com/top100/> [Accessed 17 Feb 2014].

**EXHIBIT 14: COSCO: INCOME STATEMENT BY SECTOR AND GEOGRAPHY,
US\$1000S⁶²**

Container shipping and related business	2012	2011	Change (%)
America	2,399,369	1,948,769	20.3%
– Europe	1,975,768	1,521,388	26.9%
– Asia Pacific	1,219,026	1,057,498	12.6%
– China domestic	1,904,619	1,791,904	3.8%
– Other international market	273,873	249,689	7.2%
Subtotal	7,772,655	6,569,249	15.6%
Dry bulk shipping and related business			
– International shipping	2,279,317	3,385,701	-34.2%
– PRC coastal shipping	293,132	318,902	-10.2%
Subtotal	2,572,448	3,704,603	-32.2%
Logistics, terminal and other operations			
– Europe	146,577	111,037	29.0%
– Asia Pacific	31,668	31,581	-2.0%
– China domestic	3,457,522	2,864,050	17.9%
Subtotal	3,635,768	3,006,669	18.1%
Unallocated	196,706	147,875	30.0%
Total	14,177,577	13,428,396	3.2%

EXHIBIT 15: OOIL FINANCIAL METRICS. SOURCE: BLOOMBERG

Year	Revenue (US\$M)	RoE	RoA	Profit (US\$M)	Prof Margin (%)	Net debt to Equity (%)	Number of Employees
2003	3,241	33.4	13.3	329	10.2	39.2	4,157
2004	4,140	45.9	19.8	670	16.2	31.7	5,500
2005	4,346	31.8	14.7	651	15.0	27.9	6,165
2006	4,610	23.2	11.1	581	12.6	35.6	6,763
2007	6,561	73.8	39.8	2547	45.1	0.8	7,200
2008	6,531	6.4	3.7	272	4.2	11.6	8,236
2009	4,350	-9.7	-5.4	-402	-9.2	32.7	7,748
2010	6,033	39.2	22.8	1867	30.9	-24.0	7,688
2011	6,011	3.7	2.2	182	3.0	10.7	8,008
2012	6,459	6.8	3.7	296	4.6	18.0	8,626

⁶² COSCO Holdings, Annual Report 2012; 1 USD = 6.303 CNY, 31 Dec 2011; 1 USD = 6.2302 CNY, 31 Dec 2012

EXHIBIT 16: COSCO FINANCIAL METRICS. SOURCE: BLOOMBERG

Year	Revenue (US\$M)	RoE	RoA	Profit (US\$M)	Prof Margin (%)	Net debt to Equity (%)	Number of Employees
2003	3,123	137.0	4.4	210	6.7	176.2	na
2004	3,889	88.5	10.0	502	12.9	96.6	8,329
2005	5,856	41.5	11.1	681	11.6	26.3	8,579
2006	9,891	30.6	12.0	1040	10.5	19.0	18,351
2007	14,758	47.9	19.6	2562	17.4	-31.0	32,851
2008	18,977	23.5	9.8	1670	8.8	-7.9	34,304
2009	8,081	-15.9	-5.8	-1103	-13.7	30.4	39,226
2010	14,257	15.0	4.7	1002	7.0	24.0	39,458
2011	13,097	-25.4	-6.8	-1624	-12.4	62.7	39,561
2012	13,999	-32.0	-5.9	-1515	-10.8	115.8	46,221

EXHIBIT 17: OOIL SELECTED FINANCIALS, 1973 - 1985⁶³

Year	HK\$/US\$	Net income (US\$K)	Operating profits (US\$K)	Shareholders' equity (US\$K)	Total assets (US\$K)	Total liabilities (US\$K)
1973	5.1465	10,426	21,018	51,436	145,091	93,656
1974	5.0316	10,556	30,628	58,173	178,333	120,160
1975	4.6352	28,878	32,066	80,258	229,285	149,027
1976	4.9047	21,160	36,901	102,440	304,835	202,396
1977	4.662	27,369	47,712	117,544	351,098	233,554
1978	4.6837	26,192	66,978	110,303	464,388	354,085
1979	5.0027	36,946	64,044	139,893	533,769	393,876
1980	4.9761	54,782	26,169	292,164	1,269,909	977,745
1981	5.5893	8,067	44,094	244,793	1,297,356	1,052,563
1982	6.0699	7,139	39,245	412,721	1,806,365	1,393,644
1983	7.2652	34,696	34,847	367,137	1,701,651	1,334,514
1984	7.818	(124,142)	46,757	248,646	1,509,887	1,261,242
1985	7.7908	-	(6,212.46)	-	-	-

⁶³ Source: company annual reports. Fx rates from <http://fx.sauder.ubc.ca/etc/USDpages.pdf>.

EXHIBIT 18: ROE, ROA, D2E AND ND2E: OOIL AND SECTOR MEDIAN. SOURCE: BLOOMBERG⁶⁴

	Return on Equity		Return on Assets		Debt to Equity		Net Debt to Equity	
	OOIL	Sector	OOIL	Sector	OOIL	Sector	OOIL	Sector
1991		10.56		2.63	151.4	159.4	66.0	93.3
1992	(2.43)	4.42	0.12	1.16	184.3	129.7	88.0	88.0
1993	34.12	10.60	10.27	3.06	124.3	127.3	17.2	98.4
1994	10.70	9.43	4.22	3.32	107.3	133.8	22.5	90.7
1995	na	9.68	na	3.51	125.0	129.2	56.3	92.4
1996	16.76	9.47	6.35	3.09	104.6	127.4	51.0	102.1
1997	2.86	5.64	1.30	1.33	121.1	112.2	79.6	78.3
1998	(0.44)	3.59	(0.02)	0.96	117.6	120.1	77.3	86.6
1999	9.11	2.84	3.37	0.84	104.5	104.6	64.4	84.4
2000	14.93	5.39	5.56	1.41	119.5	98.4	80.9	75.2
2001	7.61	6.22	2.85	2.57	115.2	83.0	76.9	58.8
2002	6.18	6.60	2.38	2.30	104.1	110.3	61.8	84.5
2003	33.39	9.00	13.31	3.39	98.9	93.8	39.2	66.9
2004	45.92	16.17	19.81	7.02	87.4	75.6	31.7	54.2
2005	31.80	21.63	14.74	8.65	80.5	67.9	27.9	36.1
2006	23.17	15.06	11.15	5.81	75.9	72.3	35.6	64.2
2007	73.79	15.28	39.75	6.42	52.8	63.8	0.8	35.6
2008	6.36	12.53	3.65	5.59	54.1	67.7	11.6	41.4
2009	(9.66)	6.77	(5.35)	2.93	65.1	73.3	32.7	42.0
2010	39.23	4.81	22.76	2.10	47.8	66.5	(24.0)	44.7
2011	3.70	3.81	2.16	1.37	62.9	83.7	10.7	57.8
2012	6.77	2.10	3.70	0.60	63.9	81.5	18.0	62.0

EXHIBIT 19: BALTIC DRY INDEX. SOURCE: BLOOMBERG



⁶⁴ Return on Equity, Return on Assets, Debt to Equity and Net Debt (debt offset by cash and near cash) to Equity

**EXHIBIT 20: CAPACITY AND TOTAL LIFTINGS OF OOIL'S CONTAINER FLEET (TEU).
SOURCE: OOIL ANNUAL REPORTS**

Year	Owned or long term chartered	Short term chartered	Chartered out	Net capacity	Total liftings
2006	287,505 ⁶⁵			287,505	3,894,204
2007	353,000			353,000	4,601,625
2008	302,424	86,704	(16,032)	373,096	4,834,689
2009	297,976	38,158	(23,008)	313,126	4,158,487
2010	298,832	85,023		383,855	4,767,672
2011	303,208	112,582		415,790	5,033,137
2012	303,340	148,906		452,246	5,217,234

EXHIBIT 21: WORLD REGIONAL POPULATION PREDICTIONS, BILLIONS: 'MEDIUM FERTILITY' SCENARIO⁶⁶

	Asia	Europe	N. America	Africa	Central and S. America
2010	4.165	0.740	0.347	1.031	0.596
2015	4.385	0.743	0.361	1.166	0.630
2020	4.582	0.744	0.376	1.312	0.662
2025	4.749	0.741	0.390	1.468	0.691
2030	4.887	0.736	0.403	1.634	0.717
2035	4.997	0.730	0.415	1.812	0.739
2040	5.080	0.724	0.426	1.999	0.757
2045	5.136	0.717	0.436	2.194	0.771
2050	5.164	0.709	0.446	2.393	0.782

⁶⁵ No breakdown between owned and chartered is available prior to 2008

⁶⁶ United Nations, 2012. World Population Prospects: The 2012 Revision. [Online] Available at: http://esa.un.org/wpp/Excel-Data/EXCEL_FILES/1_Population/WPP2012_POP_F01_1_TOTAL_POPULATION_BOTH_SEXES.XLS

**EXHIBIT 22: MEDIAN AGE AND AVERAGE GDP GROWTH, 2009 – 2013, FOR
SELECTED COUNTRIES⁶⁷**

Country	Median age	Average GDP growth (%)
China	36.3	9.2
Japan	45.8	0.1
Thailand	35.1	3.0
Malaysia	27.4	4.2
US	37.2	1.1
UK	40.3	-0.6
Germany	45.7	0.7
France	40.6	0.2
Spain	41.3	-1.4

EXHIBIT 23: US MANUFACTURING EMPLOYMENT, 1000S⁶⁸

Year	Jan	Apr	Jul	Oct
2008	13,725	13,598	13,430	13,149
2009	12,560	12,029	11,666	11,540
2010	11,462	11,493	11,571	11,557
2011	11,620	11,704	11,755	11,773
2012	11,837	11,916	11,979	11,947
2013	11,982	12,001	11,982	12,011

⁶⁷ The World Bank, 2013. GDP Growth. [Online] Available at: <http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG> [Accessed 20 February 2014]. Central Intelligence Agency, 2013. The World Factbook. [Online] Available at: <https://www.cia.gov/library/publications/the-world-factbook/fields/2177.html> [Accessed 20 February 2014]

⁶⁸ Bureau of Labor Statistics, US, 2014. Databases, Tables & Calculators by Subject. [Online] Available at: <http://www.bls.gov/> [Accessed 20 February 2014]