1999

The disclosure of cash flow and financial risk in shipping in China

Jianfang Tian
World Maritime University

WORLD MARITIME UNIVERSITY
Malmö, Sweden

THE DISCLOSURE OF CASH FLOW AND FINANCIAL RISK IN SHIPPING IN CHINA

By

TIAN JIANFANG
The People's Republic of China

A dissertation submitted to the World Maritime University in partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE

in

SHIPPING MANAGEMENT

1999

DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

....

TIAN Jianfang

16 August 1999

Supervised by: Patrick Donner
Associate Professor, Shipping Management
World Maritime University

Assessor: Ma Shuo
Course Professor, Port- and Shipping Management
World Maritime University

Co-assessor: Anna-Kari Bill
Head, Finance & Administration
World Maritime University

ACKNOWLEDGEMENTS

Having finished the dissertation, I feel deeply that my achievement could not be made without much help and support from professors and other staff such as librarians at WMU, friends in China as well as some visiting professors.

I hereby would especially like to express my deepest thanks to my Course Professor Shuo Ma and my Supervisor Patrick Donner, who gave me great assistance and instruction in my study and research.

In addition, Mr He Jiale, General Manager of Financial Division in COSCO Container Lines; Ms Lu Shiyi, Vice General Manager of Financial Division in China Shipping Group; Ms Zhu Yanju, Manager of Accounting Department of COSCO Container Lines; Mr Zhou Wei, Manager of Accounting Department of China Shipping Container Lines Co. Ltd; as well as Ms Song, Manager of Financial Department of China Shipping Development Company Limited gave me great assistance in my collection of information. My acknowledgement also goes to them.

Finally, I must thank my husband Yin Bo and my beloved daughter Yin Menghui wholeheartedly; who have given me a lot of support during my study at WMU.

ABSTRACT

The dissertation intends to discuss some aspects of financial reporting in shipping in China, especially the disclosure of cash flow and financial risk. As these two things are new but critical for Chinese Shipping companies, it is necessary to pay attention to them in order to get into international market.

As China is experiencing an economic transition, many problems arose in the process. The dissertation summarised the typical problems in Chinese shipping companies as poor financial management and poor strategic planning. It also explained why these problems existed.

In order to clarify the meaning of cash flow, the dissertation discussed the definition of "cash", its differences from "profit", and the purpose of a cash flow statement (CFS). The importance of cash flow analysis can be showed from the new accounting standard in China. The statements of different methods used in preparing CFS also give a view of cash flow analysis in practice. Cash flow analysis applying in shipping shows its necessity in managing the business. To solve the problem of lack of awareness in financial risk, the disclosure requirements in International Accounting Standard (IAS) may give some ideas to the standards makers and might be adopted in China.

The last two parts of this dissertation try to give some recommendations in general to improve financial reporting in China and draw a conclusion of accounting as an effective tool in shipping business, which is based on the previous statements. The writer hopes this would make the accounting professions in China start to think more about the improvement of financial reporting in these areas.

KEYWORDS: Cash flow, Financial risk, IAS, CFS, Financial reporting, Shipping business,

TABLE OF CONTENTS

1. Introduction ¾ Enhancing the improvement of financial reporting

Shipping is an important industry in a national economy as maritime transport has always been a primary means of transportation of trade. Since adoption of the reform and open-up policy in 1978, China's annual foreign trade volume has soared from US$20.64 billion to US$325.1 billion in 1997. The proportion of China's exports in global trade increased up to 3.6 per cent in 1997, making the country the world's 10th largest exporter (China Daily, 1999). At the same time, the development of China's shipping fleet is also significant. There were 360,000 civilian shipping vessels or 50 million tons in deadweight by the end of year 1997. The volume of freight handled by all ocean ports in 1997 amounted to 878.5 million tons including 9.3 million standard containers. One hundred and thirty ports are open and visited by more than 36,000 vessels from over 100 countries and regions. The conclusion can be drawn that the Chinese shipping industry is playing an increasing role within the nation's economy and foreign trade (Wan, 1998).

Along with the economic development in China, Chinese shipping companies are faced with a cocktail of opportunities and threats that makes their financial and management accounting such a fascinating object of study. Especially, the quality of financial reports becomes a vital factor in financing activities, which are related to the survival and growth of the companies. Therefore, financial reporting is a significant matter for the industry if China intends to bring its shipping into the international competition.

The functions of an accounting system depend mostly upon the reporting system. The accounting system is developed to serve management for managerial planning, control and decision making. It provides financial information about costs, profitability, operating results and the financial position to meet the needs of internal and external users. It is practically a sub-system of integrated management information systems. Accounting keeps track of what has been going on in an organisation to provide useful information for management. This information is presented by the financial reporting, which has certain objectives to achieve. As a popular consideration, financial reporting should provide information, which is useful to present and potential investors and creditors in making rational investment and credit, and similar decisions. The information should also be comprehensible to those who have a reasonable understanding of business and economic activities. In one word, financial statements provide information about the past to aid users in making predictions and decisions related to the future financial status and flows of the business.

However, the differences of financial reports exist because of many understandable reasons such as accounting practices and legal, professional and educational conditions. The differences may also be caused by the accounting patterns, which are a result of the accounting zone influences depending upon the historical background and state of economic development. Culture and traditions may impose pressures on the accounting practice that differ from country to country. Moreover, tax laws or other laws may occasionally create some needs that are special. Nevertheless, awareness of international variety in accounting practice is essential for any companies active in international business such as shipping companies. As many countries have their own rules for the preparation and presentation of accounts, the differences between the practices are allowed, or even required. Even within a single country, there are often choices and alternative methods of presenting the same information. Today, people are still some way from the objective of a common global accounting language, sometimes speaking different languages and giving different interpretations of the same events and transactions (Nobes & Parker, 1988, pp 3-4).

The difference in financial reporting can be a significant matter as its wide influences. Financial reporting has influences on many aspects as it is known as a subject of great importance to many groups of people. Investors and potential investors, industrialists, legislators, governmental regulatory agencies, employees, and accounting practitioners all have a vital interest in the reporting standards and practices of the countries in which they live. Those people who use accounting information must understand what a given accounting figure probably means, what its limitations are, and the circumstances in which it may mean something different from the apparent "signal" that it gives. However, it should also be realised that differences in accounting rules and practices may impose significant costs on providers and users of financial statements. The costs may include extra preparation or analysis costs and also some costs arise because different information leads to different decisions.

As there are differences existing in financial reporting, the goal of international accounting harmonisation is important. Many of the current difficulties of the Asian economies have been exacerbated by a history of inconsistent, and in some cases inappropriate, accounting practices and inadequate openness and disclosure. It is also recognised that the end game is drawing close: the United States Securities and Exchange Commission (SEC) is commencing its review of the International Accounting Standards (IASs), to consider whether to back them as the global standards. It is believed that the International Accounting Standard Committee (IASC) is the appropriate platform to set international accounting standards, provided that those with existing standard setting experience are properly represented in the future IASC structure. It is against this background that people are pleased to see the European Commission (EC) giving backing to IAS. People cannot afford to descend into accounting protectionism, which would perpetuate accounting differences and capital market inefficiencies (IASC News, 1999).

China is now attempting to find a unique development path combining socialist social structures with capitalist markets. This has involved major changes in the ways in which enterprises are organised with the introduction of profit measures and private ownership. This means that the accounting system has also had to be radically restructured, starting virtually from scratch. This has encompassed all aspects of accounting, including not only financial accounting and reporting by both domestic enterprises and foreign joint ventures, but also stock market regulations, auditing regulations and accounting education. This will further enhance acceptance of Chinese companies for foreign shareholders, investors and analysts. The improvement in financial reporting will also make for better comparability with the accounts of international competitors, thus generating even more interest (Roberts et al, 1998, p 590).

Though the regulations are not as detailed or as prescriptive as those laid down by the IASC, China is attempting to harmonise with IASC while adapting the standards to meet the continuing unique features of the country. Even if China is not going to adopt IASs, it does not mean that IASs were or will be ignored. The Chinese Institute of Certified Public Accountants (CICPA) became a member of IASC in May 1997. The People's Republic of China has begun to participate in the work of the IASC through observer status on the IASC Board since June 1997. This reflects China's intention to carry on introducing internationally acceptable standards which, while not being identical to IASs, are in harmony with them. It was commented by Micheal Sharpe, IASC Board Chairman, as following:

> The Chinese economy is strong and growing. Chinese companies raise capital both domestically and in securities markets throughout the world and often undertake projects jointly with, and partly financed by, foreign enterprises. These factors have dramatically increased the demand for sound financial reporting by Chinese companies – financial statements that are readily understood all over the world. (IASC News, 1997).

In the past, enterprises in China only had to report to the state and they were not expected to produce any more information than that which was required. Now, increasing numbers of enterprises are moving from state ownership and the number of listed companies is increasing quite rapidly. According to China Daily (1998a), of the 1,220 key state-owned large enterprises or enterprise groups, almost 40 per cent have been listed on the stock market so far. These changes imply that at least some enterprises are likely to begin to disclose extra information voluntarily. However, this is likely to be a slow process and the level of voluntary disclosure by most companies is likely to remain relatively low, at least for the next few years. The disclosure of cash flows is one example in the process. Therefore, financial management should be enhanced in shipping, especially in developing countries like China, as the management levels there are relatively lower.

This dissertation attempts to discuss the disclosure of cash flow and financial risk in shipping. These two things, which Chinese shipping companies are facing, are new but critical in the development of an organisation, especially in shipping. Proper understanding and effective disclosure may have great influences in financial management of shipping. The dissertation will focus on the analysis of the necessity and importance of cash flow in shipping organisations. It will also discuss the concept of financial risk and why or how shipping companies should disclose it in their financial reporting. In conclusion, the effective use of accounting information does form an important part of good management. For the purpose of improving the financial reporting in Chinese shipping companies, some recommendations will be given.

2. The main problems of shipping companies in China

There are always some difficulties existing in the process of the development of a country. As China is experiencing a painful economic transition, the recent challenges are state enterprise reform and the clean up of public service. Some enterprises with incompetent managers operate at a serious loss because of poor operation and management. A new, but characteristically punitive, measure for dealing with managerial incompetence in the state sector was introduced in China recently. Those businesses across the country, which use corrupt and uncommercial practices and threaten to drag down the economy, will be given warnings (Harding, 1999). All the companies should be prompted to take measures to improve their management and to circumvent financial risks.

Under external and internal pressures, the ocean shipping sector in China is now facing a tough challenge. As China's shipping business will open wider to the outside world, tougher competition will occur in this area. China's shipping sector is seeking to establish a management system, which stresses consolidation of and unified management of the shipping companies in the same economic region. It is hoped that this mechanism will help eliminate isolation among the companies and will improve the management of the subsidiaries and save costs. Furthermore, it will also enable the companies to share information and cash in on the synergy effects. In trying to identify some of the financial management issues involved it will be helpful to commence with a snapshot of the current financial problems in shipping companies.

2.1 Poor financial management

The financial management has more important meaning in a capital intensive operation such as shipping. Financial control is considered to be a significant part in an organisation's development. Although innovation and entrepreneurial abilities are the key points in any industry and for any company, many people believe that is not enough. The chairman of Stolt Tankers &Terminals (STT), Jacob Stolt-Nielsen, has commented:

> The important thing is to be a manager. We have seen too many entrepreneurs with brilliant ideas who cannot make it because they have not been able to manage people properly and have lacked financial control. The emphasis should be on good management, which is defining and pursuing a mission. (Mottram, 1999a).

The comment here points out that the reason why some companies cannot achieve their objectives is lack of financial control. It is believed that benefits can be realised from good management. For many companies, controlling and reducing cost and further enhancing the effective utilisation of assets, as well as increasing the companies' efficiency, should be realised by strengthening the management in the fundamental aspects of the companies' business.

Poor financial management is presented by the accounting information provided by the Chinese companies. Financial reporting is the most important segment in the whole accounting information system. Due to its importance, many countries have laid down regulations to stipulate the reporting process. In other words, all kinds of standards and rules have provided the theoretic basis for financial reporting. Some basic principles such as relevance, objectivity and feasibility principles are the foundation of ensuring financial reporting with good quality.

In China, many people in theoretical or practical scope have paid attention to financial reporting. Moreover, a series of regulations have been draw in this area. However, many problems still exist in practice, such as the regulations about the reporting items, the reporting ways, and the reporting range and depth, which cannot meet the needs of practical financial management. Another problem is that the

Enterprise Accounting Standard (EAS) in China did not give the concrete introductions to the practical operation.

Although China’s shipping industry is sailing fast and steadily amid a tempest of world competition, the problems caused by poor financial management can be found in many companies. The government no longer provides financial subsidies to shipping companies, but it takes time to adjust from a planned-economy system to a market-driven economy. Improving financial management of state-owned enterprises (SOEs) and financial institutions, whose health has aroused wide concern, is an urgent task. In order to ensure the safety of state-owned assets, the auditing of the credibility of the accounts and data provided by the SOEs is necessary. Big efforts should be made to fix the clumsy management system inherited from a planned economy. China has pledged to take three years to help most of its SOEs out of trouble. It will require a quicker and more efficient approach to provide correct information for decision making at the high management level. The financial management level in the enterprises should be in line with China's economic development.

2.1.1 Lack of proper accounting control

It is known that accounting information should be relevant and objective. The principle of relevance requires the enterprises to provide information that is meaningful and useful to those who need to know something about their organisations. The principle of objectivity requires that information is not influenced by the personal judgement of those who furnish it. Moreover, the objectivity connotes reliability, trustworthiness as well as verifiability. That means the accounting reports should describe as accurately and completely as possible the status of assets, liabilities, and owners’ equity, the results of operations, and cash flows. The amounts reported should not be biased, particularly by the subjective judgements of management. Proper accounting control leads the companies towards healthy financial conditions (Anthony et al, 1995, p 13).

However, the accounting information provided by some Chinese companies may not be as relevant and reliable as it should be. It was reported by the China National Audit Office (CNAO), that companies providing false accounting data have long been a headache for the authorities. Cooked books can hide embezzlement and irregularities in financial management and can mislead the policy makers. Problems like dishonesty in the balance sheets, concealment of business income, and setting up business off the company's accounts have caused invisible drainage of state-owned assets. It was found that inaccurate and fraudulent accounting is a widespread phenomenon among the loss-making companies. Moreover, financial management of many financial companies was found to be chaotic with inaccurate accounts, misappropriation of customers' money and illegal fund-raising (Xu, 1998). As a result, the reliability of accounting information has become a big problem in Chinese companies. Accounting as a means of management cannot play its role effectively.

The chaotic accounting work done by the enterprises is the main cause of many problems in financial reporting. In 1998, the CNAO chose 23 large and medium-sized SOEs as pilot enterprise for improved and reinforced auditing and found them problematic. According to statistics released from the auditing campaign, assets of 11.24 billion yuan (US$ 1.35 billion) and debts of 4.55 billion yuan (US$548 million) were found to be fabricated in the data provided by these 23 enterprises. One of the corporations reported 20.9 million yuan (US$2.5 million) of profits, but turned out to have been 943 million yuan (US$ 113.6 million) in the red. Seven enterprises out of the 23 had in total 2.14 billion yuan (US$257.8 million) of latent losses, typically consisting of non-performing assets and unsettled losses of properties, 114 per cent of the accounted profits. The auditor-general of the CNAO, Li Jinhua said, "Accounting has been distorted either for gains of a clique or for personal benefits, and the knotty problem with China's SOEs has become more a matter of corruption than solely mismanagement." (Zhang, 1998).

Nevertheless, the factors, which cause unreliable accounting information, are very complicated. The shortcoming in accounting theory is one of the factors that cause the unreliable information in accounting reports. One popular school of accounting theory thinks that accounting information should be useful to the decision-making. Thus, the most important quality feature of the accounting information should be relativism but not truth. There are three possible reasons, which give the following explanation. First, the balance sheet and the income statement are evolved from the enterprise reports in the industrial era, which cannot meet the needs of development and changes in the modern market economy. As a result, the Cash Flow Statement (CFS) came out as a statement to meet the needs of disclosing the track of cash flows. However, it cannot disclose the potential cash risks of the accounting entity. Secondly, there is no a criterion for people to judge whether the accounting information is true or not. Thirdly, the relativism is more meaningful than the truth in reality. Therefore, both the defect in theory and the chaos in practice lead to the unsatisfied result.

Many companies have deliberately misstated their statistical figures due to various reasons. Some enterprises have falsified their figures in a bid to deceive and delude their superiors and subordinates by hiding or inflating losses and profits. As comparable, transparent and reliable financial information is fundamental for an efficient and integrated capital market, it is more meaningful for shipping companies to improve financial reporting. The companies may also need to raise finance on international capital markets. Lack of comparability will discourage cross-border investment because of uncertainty as regards the credibility of financial statements. Therefore, Chinese shipping companies should work strenuously to improve the quality of financial reporting.

2.1.2 Financial difficulties

The most common problem in Chinese shipping companies is related to financial difficulties. The simplistic way of financing most enterprises, those depressed state-owned enterprises in particular, was to turn their management problems into financial problems. One probable impact in the company's returns is the effects of managerial competence. One factor that influences the financial condition is the bad decisions made by the managers. Unfortunately, the financing and investment decisions taken in one year affect an organisation's liquidity, solvency and profitability for many years in the future. The mismanagement mentioned before has led many Chinese companies to heavy losses.

Another obvious difficulty is lack of essential funds needed in the operations of the shipping companies. The high capital pressure comes from the restructuring of the fleet. The shipping companies have been set up to meet the needs of the domestic market. However, they try to participate in the competition in the international market as there is over tonnage in the domestic market. The rising standards in technology make new investment necessary. New capital has to be put into fleet reform for future development. Bad performance in operations makes things worse, and many companies suffer from bad liquidity. Shortage of liquidity will doubtless have a negative influence on the extent of any development in investments.

Due to the heavy burden of interest, companies do not take bank loans as a solution for operational funding. In order to reduce capital cost, many companies try to find the funds from other related companies, rather than having loans from the bank. This intention makes things worse among shipping companies. Every company is owed a lot of money by the other companies. On the other hand, they owe quite a big amount to the others at the same time. The overdue accounts have become a big problem in business activities, especially in shipping. In recent years, the business of shipping has been trying to solve the funding problem by corporatisation. However, it is usually considered that corporate shipping companies produce a lower return on capital employed than private players do. Because the key decisions are made by committees in corporations, consequently they are normally less efficient than independent owners in getting the timing right.

Chinese shipping companies, especially state-owned companies, are bearing high pressure on their liquidity. For many companies, growth is very important to survive in the future in the fierce competition. However, it will cause a heavy burden in loans at the same time as asset requirements are expanding. The high portion of ship capital cost comes from bank loan, as the companies do not have spare cash to pay for new ships. The ship financed by debt carries an annual cash flow for interest and debt repayment in excess of its operating costs. The repayment of loan causes problems in liquidity and solvency as a result of the poor profitability in the operations. Because of the high interest rate, companies do not have enough money to pay the interest expenses. This makes the financial situation worse when the shipping market is experiencing recessions and the freight rates are very low. As a result of the two interest rate reductions since October 1997, the interest rate for loans of a term of 5 years or more has been reduced from 12.42% to 10.35%. These interest rate reductions will lower the shipping companies' capital costs and improve the companies' business results.

The management of heavy capital cost in shipping has great influence on the performance of Chinese shipping companies. Management is constantly faced with a limited amount of resources to apply to a wide array of investment proposals. The financial arrangement of ship acquisition is a big subject to be figured out by the management. Capital investments, in most cases, provide a framework for the future growth and development of the shipping company, which must be anticipated in advance. Plans must be projected well into the future, a future which is uncertain at best. It may be difficult to reverse the effects of a poor decision.

Nowadays, capital spending in the maritime industry for the acquisition of ships and other marine property and equipment has been increasing substantially. Whether vessels are bought dearly in boom years or purchased cheaply during a recession has a significant influence on profits. The related cash flow profile in ship acquisition shows the skills of management in decision making. Usually, many shipping companies cannot afford to buy their ships for cash. In shipping, ship investment is a particularly important aspect of using cash flow. If the ship is purchased with a loan, the payment of interest and repayment of the loan become a big part of cash outflow. Even if the company generates a positive operating cash flow, after deducting interest and capital repayments it has a net cash outflow. The ability to optimise the purchase of new or second-hand tonnage is an important factor in the survival of shipping companies.

Chinese enterprises need to go through massive redistribution of the state assets in the next few years to pull themselves out of their current financial difficulty. Chinese economists forecast that a huge amount of capital is needed to back the reform of state enterprises in their crucial stage and reorganise state assets. The securities market, as an indispensable part of Chinese market economy, will provide backing for the enterprise reform. It will also rid the companies of their heavy dependence on bank loans and enable them to orient themselves with the market need (China Daily, 1998a).

2.2 Poor strategic planning

The purpose of management control is to implement an organisation’s strategies. The strategy formulation includes the process of identifying, evaluating and deciding on these strategies. This is a significant matter as the company can make its operation towards its strategy, which is determined by the company’s strengths, weaknesses, threats, and opportunities. It is also important to reconsider strategies whenever there is a need to do so: an opportunity to capitalise on new technology, a change in freight market, a threat from a new competitor, and so on. However, this is an obviously defective aspect in Chinese shipping companies.

It is known that shipping is a cyclical and highly risky business. The shipping market is characterised by the succession of booms, recessions and depressions. The financial performance is influenced by the recessions and depressions of the shipping market. However, the seeds of future problems are often sown under the heady influence of market sentiment at the peak of cycle (Stopford, 1997, p 152). It is related to the strategies of the company and the financial awareness in the company. Fulfilling basic management functions will optimise profits and at the same time will fit the company's overall objectives.

How an organisation develops is a big question for top management. It relates to the determination of the objective in the organisation. A clear business mission leads to clear and realistic business objectives. It has been emphasised that an iterative process is needed to ensure a clear and understood objective, which has been achieved with a large amount of involvement throughout the whole organisation.

However, many companies have not taken the strategic plan into consideration. The typical phenomenon is that top management is too busy dealing with operational problems (Mottram, 1999a). They do not have enough space to consider longer-term issues such as strategic planning. This also did happen in medium management divisions. In some Chinese shipping companies, the directors in financial departments never find time to think about the overall objectives. They are involved very much in the operational problems, such as tax examinations, regulation requirements and financial disputes with other organisations. They believe their job is to maintain the status quo. They are busy with the ordinary routine to keep everything in order. The future development plans and how the financial department can contribute to the organisation's growth are ignored. This situation shows the shortcomings in strategic planning of Chinese shipping companies.

Another common problem is the fact that top management is not fully aware of the organisation's position when they set the objectives. As a result, the planned actions sometimes do not bring any benefits to the company. The reason might be that they have not sufficiently analysed the external factors, which have a big impact on the operations. Sometimes, it is because they do not understand the organisation's internal situation properly. They have not weighed their advantages against their disadvantages. It is also possible that the objective comes out without an appraisal of the organisation's internal and external situation (Mottram, 1999a).

2.2.1 Defective objective

Different management levels have their own objectives within their scopes. The purpose of setting objectives is to give the direction to people who can concentrate their effort consistently. This also gives people flexibility when they make decisions within the framework of the organisation's resources. The objectives in each level must contribute their part to the overall objectives of the organisation.

The process of target setting in Chinese shipping companies is relatively simple. People are thinking about objectives intuitively as either maximum turnover or maximum profit. Turnover represents gross revenue arising from shipping operations. It shows the performance of shipments during the period. It may be influenced by both the changes in business volume and in currency exchange rates. It is somehow profitability measurement in spite of the emphasis in cost control. A profit plan shows the planned activities that the company expects to undertake in order to obtain its profit goal. These objectives sometimes lead the companies into difficulties as they ignore some important aspects such as liquidity, rational capital structure, and effective utilisation of limited resources. Although profitability is one important goal in a profit-oriented company, it is by no means the only goal.

Even if the objective is to achieve a certain profitability goal, it should be supported by the other aspects within the organisation. For example, J. Lauritzen A/S in Denmark sets its objective to give its shareholders a return on their investments which equals that on similar active investments. It has been realised that its staff had made a solid contribution to the achievement of these goals. The efficient, well-qualified and performance-oriented employees play an active and constructive role in ensuring a profit-making organisation (Report and Accounts, 1997).

It is of course possible that profit-maximisation is not the only, or even at times the principal, objective of a shipping company. The final objective of recent plan is to increase the company's profitability. For example, China Shipping Development Company Limited clearly states so in its recent plan. The plan is to increase its shipping capacity and business scale over the next few years by means of acquisition, merger or reorganisation. In order to achieve the profit goal, a global strategic view is necessary to set up the objectives. China Ocean Shipping Corporation (COSCO) Container Lines has been striving to weave a more complete management and service network through global integrated business management and global integrated marketing.

2.2.2 Lack of awareness of financial risk

The closedown of some financial firms indicates that China must strengthen its efforts to fend off financial risks. After a three-month clean up, the Guangdong International Trust and Investment Corporation was forced to shut down because of its insolvency and poor management. Following in its footsteps, three other similar corporations announced their bankruptcy for similar causes. The main thorny problems are a high proportion of bad assets and mismanagement. However, some companies, as well as some financial institutions, have not been able to fully understand the harmfulness of financial problems and the importance of preventing and warding them off.

Many companies do not have a high enough level of understanding in financial risk aspects. As they are experiencing the difficulty of finding funds, the booming of the financing market encourages them to set up higher profit expectations. They consider themselves fortunate to have solved the funding problem. However, they are not familiar with the arrangement of all the new financial instruments. They did not realise that they are exposed to huge risk when they get large amounts of funds from the financing market. Moreover, the risk may lead the company to bankruptcy.

A company should be aware that the financial risks exist all through its life. In a cyclical business like shipping, the challenge is to create sufficient financial strength when times are good to avoid unwelcome decisions such as selling ships for scrap values when times are bad. The important point is to maintain healthy financial conditions for a long time. As the market is trying to force surplus capacity out of the system by squeezing cash flow, there is a big challenge for all companies in recessions. The situations are even worse during depressions, when the ships are laid up and generated a negative cash flow. It is the company with a weak cash flow and no reserves that finally gets pushed out. However, the company with a strong cash flow can buy the ships cheaply and survive to make profits in the next shipping boom. (Stopford, 1997, p 152)

3. The necessity of cash flow disclosure

Management is described as the tools of planning, organising, controlling, and communicating. Essential management theories and practice such as management skills, tools, and disciplines could be applied and are needed in shipping (Downard, 1984, p 5). Financial management is one of the essential elements in shipping operations. The rational objective and proper procedure may arise from the analysis of past financial results. For example, accounting as a means of management can play a significant role in the shipping industry. Shipping companies and groups are required to produce annual financial statements or accounts, which show their investors, financiers and other interested parties how profitable they have been, how much cash they have generated, and what financial positions they are in (Chopping et al, 1996). Therefore, financial management is an important aspect related to the development of shipping at a global level.

As there are problems related to the management existing in the shipping companies, the objectives of the managers should be clarified. The manager really has a threefold task: earning profit, controlling the company's financial condition, and preventing "cashouts". It is very clear that earning an adequate profit is the key for survival and the manager's most important imperative. However, profit alone does not guarantee survival. It is impossible to manage profit without also managing the changes in financial conditions caused by the revenues and costs that produce the profit. Even a temporary drain on cash may cause problems in profit-making activities. (Tracy, 1989, pp 18-19)

From the previous statements, the crucial role of cash flow can be seen in determining the ability of a shipping business to survive the different periods that are such a feature of the shipping market. The disclosure of cash flow provides useful information to the users such as investors, creditors, and financial analysts. The cash flow data of a company’s operating, investing, and financing activities is helpful in assessing future cash flows, determining the relationship between net income and cash flow, and evaluating the ability of an entity to pay dividends, service its debt, and finance growth from internal operations. A clear cash flow presentation enhances the understanding of the financial position of a business entity. Cash flow data presented in the activity format, along with profitability data from the income statement, provide the necessary information to enable users to predict future flows.

3.1 The meaning of "cash"

For purposes of the cash flow statement, "cash" means the sum of actual cash and some highly liquid, short-term investments. The sum is formally called cash and cash equivalents. The Financial Accounting Standards Board (FASB) defines cash equivalents as highly liquid investments that are readily convertible to known amounts of cash and which mature in no more than 90 days from the date of the financial statement. The reason for this definition is because companies using modern cash management techniques invest any temporary excess amounts of cash in highly liquid, short-term investments. These investments are equal to cash as sometimes they are for periods as short as one or two days (Anthony et al, 1995, p 356). Sometimes, the cash equivalents are called as near-cash resources.

A positive cash flow is essential for the long-term viability of any business operation. The goal of a cash management system is to minimise the non-productive use of cash balances. This is not as simple as it may seem. It requires much more than keeping idle cash balances at a minimum and delaying cash disbursement. It involves the effective use of techniques that shorten each aspect of the cash flow cycle. A typical shipping company's cash flow cycle can be described by the following figure.

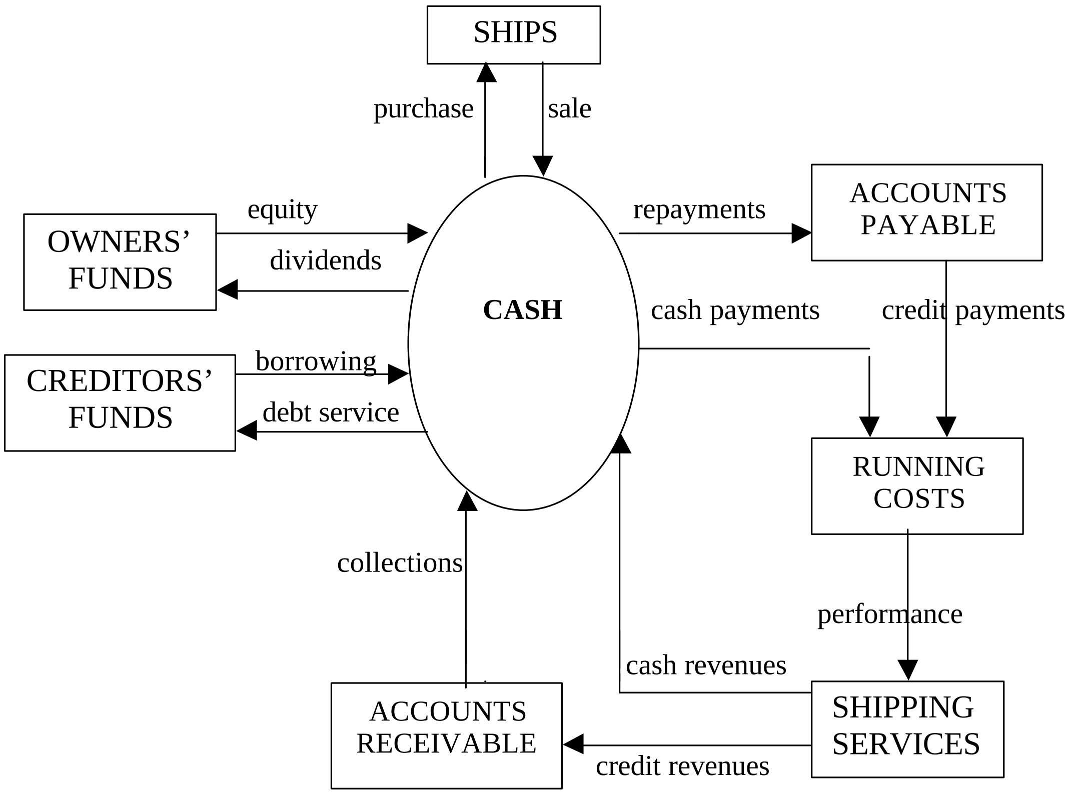

Figure 1: Cash Flow Cycle (amended from Henderson, et al. 1989, p 11)

From the above figure, the cash flows of shipping services associated with running costs are indicated. The running costs, which are incurred in performing the shipping services, are paid by cash or credit payments, excluding depreciation costs. Cash payments are directly paid out from cash accounts, but the credit payments make the cash disbursement a little bit delayed. Nevertheless, the repayments of accounts payable should use cash directly. On the other hand, cash revenues flow directly into the cash account; credit revenues flow into an accounts receivable account. Credit revenues do not complete the cash cycle until accounts receivable are collected.

This figure presents the shipping cash flow cycle which incorporates the various aspects of long-term decision making into the system, such as fixed assets like ships and external funding sources — long-term debt and ownership equity. The purchase and sale of ships are the cash outflow and cash inflow representing the investment activities of the company. The owners' funds and creditors' funds represent the financing activities of the company. The cash inflows are shown as equity and borrowing; the cash outflows are shown as dividends and debt service.

According to Professor Mottram (1999b), the key aspect of shipping company operation can be considered as cash flow. The objectives of the shipping company determine the services that will be produced. Companies raise money to finance ships. The ships are then used to perform operations that produce transport services for customers, which in turn provide revenue for the company. This can be shown in the following sketch:

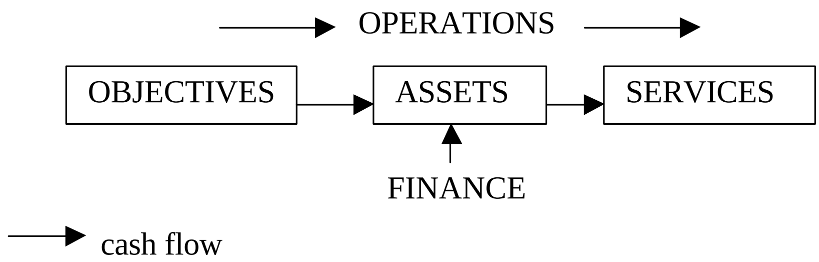

Figure 2: How a company works (source: Mottram, 1999b).

Profitability is necessary of course; however, the key factor is cash flow throughout the whole life cycle of the organisation.

In shipping, the cash flow is the actual inflows in the form of freight revenues over the lifetime of the ship minus the cash outflows. The shipowner and banker will estimate the cash flow of the operation of the ship in great detail before buying a ship or becoming committed to the financing. The instrument that both parties use in order to judge whether the owner can repay the loan and pay the interest is the cash flow calculation. All outgoing cash flows, which cover all direct costs such as cargo handling, voyage costs, operating costs, interest payment and repayment of loan, will be deducted from the total revenues. After payment of taxes and dividends, the net cash flow is found.

3.2 Profit is not everything

Profit is a significant matter, which cannot be replaced by others in any business. It represents the performance of the company during the accounting period. It also relates to the interests of individuals in the organisation, such as the welfare of the employees. Profit usually is used by people to measure the management level of the company and the ability of the managers as well. All the activities in the shipping companies may be evaluated by profits at the end of the period.

However, to complete a thorough financial analysis successfully, the difference between cash- and accrual-basis accounting as key accounting concepts must be understood. As the preferred method of keeping track of transactions that affect property and rights to property, the accrual-basis accounting is recognised as the one that most accurately reflects a company's profitability. The goal of accrual accounting is to record revenues, expenses, gains, and losses during the time periods in which they affect company performance. As a result, performance is measured by profits and has no direct connection with the ability of a company to generate cash flow. Current cash inflows may actually result from business activities of earlier periods, and current cash outflows may actually relate to expected future activities. The primary difference between accrual and cash accounting, therefore, is in the realisation and matching principles that affect the way that revenues, expenses, gains, and losses are recorded. If the goal is to study liquidity and financial flexibility, the use of accrual-based concepts can be misleading, since revenues and expenses may not match cash receipts and disbursements. In conclusion, cash flow analysis focuses on liquidity, and accrual-based ratio analysis focuses on profitability (Henderson, 1989, pp 15-16).

Definitely, profit is not everything for many businesses. Making revenues and controlling costs is a demanding task, to say the least. The ability of managers to make revenues and to control costs, and thereby to earn profit, is measured in the income statements. However, earning an adequate profit is not enough. It is certain that financial obligations must be paid in cash. Profit is not an acceptable part of the settlement of a debt. Managing cash is just as important. Enough cash must be available when needed. Earning good profit does not necessarily guarantee an adequate cash flow when needed.

It is possible that a company's operations showed a profit but it declared bankruptcy. This situation points out the limitations of accrual-based ratios and their focus on profitability as a measure of operating performance. It also means that the cash flow approach is needed for a clearer focus on liquidity and financial flexibility. Cash flow analysis should be used in conjunction with traditional ratio analysis to get a complete picture of the financial position of a company. Both cash flow analysis and accrual-based ratio analysis are important aspects of financial health. In today's rapidly changing business and financial environment, it is becoming increasingly important to have a complete picture of a company' financial health and performance.

Cash flow analysis has an extremely important meaning in shipping capital investments and finance. The shipping investments need to be evaluated by not only profits but also cash flows. The success or failure of the shipping company is dependent partly upon the right decision in committing capital for the acquisition of ships and other marine property and equipment. The acquisition of such assets usually involves a large cash outlay at the beginning of the project, and estimated cash inflows will continue for an extended period of time after the outlay. Moreover, ship project financing is neither based on asset values nor on the corporate background of the borrower or any solvent guarantor, but on the cash flow stream, which is expected to be generated by the project itself.

Profits may be important when people are looking at individual periods, such as accounting years, but ultimately any worthwhile investment has to return more money than it cost. Considering the whole life of a project, such as the period from acquisition to disposal of a vessel, the important thing is its ability to generate cash rather than the accounting return. Usually, if the present value of the future cash flows is worth more than the amount of the investment, the investment is worthwhile. If, for example, a company is considering whether or not to purchase a second-hand vessel then it can estimate the net operating revenues to be earned from the vessel, discount these cash flows, and compare this with the vessel's cost. If the result is positive, then buying the vessel is worthwhile (Stephens, 1996).

3.3 The purpose of cash flow statement

As was mentioned above, cash flows affect the ability of the company to pay its expenses and debts on time and to pay cash dividends from net income; and adequate cash sources are needed for making investments in operating assets. Creditors and investors are, or should be, as interested in cash flows as managers.

A Cash Flow Statement (CFS) gives a clear presentation to help users understand the differences between net income and the associated cash receipts and payments from operating activities. Cash flows are also very important in the aspects of investment and financial activities. In addition to the fact that a CFS shows the source and application of funds generated from operations, investments and financing respectively, for a certain year, it shows the organisation's cash position at the end of the year as well. In some cases the CFS tells more about what is actually happening in a business than either the balance sheet or income statement. Particularly, a business like shipping has huge amounts of both cash inflows and outflows. A decision-maker needs information in this aspect to achieve overall judgement.

It is important that the statement provides the external user with sufficient information to identify and evaluate the results of the management's investment and financing decisions. Most external users of financial statements would benefit from the publication of a statement of an organisation's actual cash flows, because cash is essential for the survival of an organisation. Here is an example that shows how a listed company gives the information about its cash flows.

Cash Flow Statement, DKK million.

	1998	1997	1996	1995	1994
Cash flow from operations	7,182	7,078	6,203	5,041	3,933
Cash flow used for investments	-7,280	-6,672	-6,748	-2,888	-2,493
Cash flow from financing activities	1,780	-836	61	-2,234	-1,249
Change in cash and securities	1,682	-430	-484	-81	191

Table 1: Cash Flow Statement. (Source: Preliminary Annual Accounts, Maersk Line, 1998)

In the annual reports, Maersk Line announced many investments in Shipping Activities in ships, rigs, and containers. They also made a comment based on the Cash Flow Statement that total net investments in 1998 DKK 7,280 million could thus be largely funded by cash flow from operations at DKK 7,180 million. The effect of CFS can been seen form this example. When the shareholders have doubt about huge investments, they are convinced by the explanation and the figures in the CFS.

The cash flow statement is well understood by all external users, as people may see the money clearly. The numbers on the cash flow statement are objective: cash is cash. That means the amounts of cash flows are not influenced by the judgements and estimates that are made in arriving at revenues, expenses, and other accruals. For example, the choices of depreciation of assets can have a significant effect on net income, but they have no effect on the CFS because the amount of depreciation charged is neither a source nor a use of cash. Because of this objectivity, many analysts pay considerable attention to the cash flow statement. As an objective method of reporting business performance, it provides useful control information against which to compare previous estimates of performance. It helps to assess factors such as the entity's liquidity, financial flexibility, profitability and risk. However, since net income is the best overall measure of how well the business has performed during the period, the numbers in balance sheets and income statements provide better information about an entity’s financial status and operating performance than the cash flow statement numbers.

In conclusion, the purpose of the cash flow statement is to provide information about the cash flow associated with the period’s operations and also about the company’s investment and financial activities during the period. The objectives of a cash flow statement are to help users assess the amounts, timing, and uncertainty of prospective cash receipt from dividends or interest and the proceeds from the sale or redemption of securities or loans.

4. The importance of cash flow analysis

Conventional financial statements, including the balance sheet and income statement, are not ready made for the purposes of financial condition and cash flow analysis. The balance sheet is a snapshot of the status of the company's funds at one instant of time. The income statement focuses on the economic results of the organisation's operating activities during a period. The balance sheet and income statement for a business do not leave a clear trail of the "cross-over effects" between these two basic financial statements. They are presented on the assumption that the reader understands these couplings and linkages between them and that the reader will make the appropriate connections and comparisons. In the balance sheet, the results of investment activities are represented by assets and the results of financing activities are represented by liabilities and owners' equity. The income statement describes what happened to the organisation during the period between two balance sheets. However, the income statement reflects only operating activities. It focuses upon the matching of revenues and costs. It does not fully reflect the consequences of the financing and investment decisions taken between two balance sheet dates. A financing decision might involve the cash flows that relate to the raising and repayment of long-term debt as well as dividend paid to shareholders. An investment decision might involve the cash flows relating to sale and purchase transactions of intangible, tangible and financial fixed assets.

The balance sheet and income statement need to be accompanied by a cash flow statement. It is known that a statement of cash flows provides information about an entity's investing and financing activities during the accounting period, as well as showing how much cash was generated by the period's operations. Managers use the income statement to review and evaluate profit performance and to prepare the profit plan for the coming year. Likewise, managers should use the cash flow statement to review cash flows for the year just ended and to prepare the cash flow budget for the coming year. Not to plan cash flows would invite disaster. Only recently did the

Ministry of Finance in China make the cash flow statement one of the required statements in financial reports. In the opinion of many, this change was long overdue. The information provided by cash flow statements is important both to shareholders, part of whose investment return (dividends) is dependent on cash flows, and also to lenders, whose interest payments and principal repayment require the use of cash. The welfare of other constituencies of a company depends to varying degrees on the company's ability to generate adequate cash flows to fulfil its financial obligations. Recently, Hitachi Ltd. and Toshiba Corporation in Japan have adopted US practices of using cash flow as a focal point of management strategy. The companies' ability to manage cash effectively has been put on a priority as a result of the decrease in bank lending and the introduction of new consolidated accounting rules. Therefore, managers as well as creditors and investors clearly need a cash flow statement, which summarises the major sources and uses of cash during the period.

4.1 New accounting standard on Cash Flow Statement in China

Some new accounting standards are based on International Accounting Standards (IASs), as the aim of Chinese accounting reform is to facilitate its enterprises to enter into international competition and also to attract foreign investments. The new accounting standard on Cash Flow Statement (CFS) in China is the one based on IAS 7. The Board of International Accounting Standards Committee approved a standard (IAS 7) on Cash Flow Statement that became effective in 1994. The new IAS 7 replaces the old one, Statement of Changes in Financial Position (SCFP). The standard states that enterprises should present a cash flow statement in place of a statement of changes in financial position. The cash flow statement should report the inflows and out flows of cash and cash equivalents during the accounting period. The basic idea of the new standard in China comes from IAS 7.

The cash flow and its interpretation have gained considerable attention in the financial accounting literature in developed countries in recent years, but they are a relatively new thought in China. The Statement of Changes in Financial Position (SCFP) based on the concept of working capital has been required as part of a complete set of financial statements since the accounting system reform in 1993. A new accounting standard on CFS was published in 1998. The SCFP was replaced by the CFS, which is required to be produced in all companies since 1998. It is required to use cash instead of working capital for purposes of the SCFP in the new accounting standard. The Ministry of Finance explained that the reason for making this change is that cash flow has played a more and more important role in the operation and management of the enterprises accompanying the changing of the enterprise operation systems.

With regard to liquidity, the use of a cash basis to report the changes that occur in the financial position is superior to the working capital approach. Accountants in China have used the working capital concept to define “funds” since 1993, and it served as the “funds” concept for all the companies required to produce financial data. Using this approach, any transaction that leads to a change in either current assets or current liabilities is shown on the SCFP. This can be misleading, since increases in working capital do not necessarily indicate increases in liquidity nor do decreases in working capital indicate decreases in liquidity. Many routine transactions such as cash collections on accounts receivable simply do not show up as changes in working capital. Additionally, increases in working capital may result from transactions that actually reduce liquidity rather than enhance it. One example is that an increase in working capital due to increases in accounts receivable actually uses cash rather than generates it.

The previous standard, which dealt with statements of changes in financial position, concentrated on changes in the funding of the enterprise. The new accounting standard on CFS concentrates on changes in cash and cash equivalents. It had been recognised that statements covering all changes in financial position were complex and did not help users' understanding as effectively as statements of changes in the cash position. In summarising current cash receipts and disbursements, the cash flow statement provides information not only on liquidity, but also on financial flexibility, profitability and risk. With the requirements of Cash Flow Statement in 1998, the importance of the cash flow statement is no longer an issue. The major concern is understanding the concept of cash flow.

The realistic significance of working out a CFS has been summarised by the Enterprise Accounting Standard Committee (EASC) in China. First, enterprises can get the information about cash flows through working out a CFS. This information will help them to manage the use of funds and raise the efficiency of using funds. It is significant as the cash flow may determine the ability of survival and development of the enterprises to a greater or lesser extent under a market economy condition. Secondly, the information about cash flows provides an important basis for the comprehensive economic departments of the government to supervise the activities of the enterprises. It helps the superintendents to know the real financial conditions in the enterprises and find out if there are big potential risks or not. It also facilitates their supervision by knowing and analysing the cash flow information. Finally, the CFS provides the information to the investors and creditors about how the funds have been used and also about the ability of creating cash in the future (EASC, 1998).

However, considerable efforts should be made in the process of working out the CFS. The main problem in developing a cash-basis analytical system is that the accountants and users of most companies do not have a clear understanding of cash flow or a knowledge of how it is calculated. Even more importantly, very few have the ability to interpret cash flow and cash flow trends in relation to company objectives and industry norms. At the present stage, many companies prepare the CFS in order to fulfil the requirements of regulations, not for the use of it. The above significance has not been realised by the companies or the statement users yet. That means that there is a long way to go to fully use the functions of a CFS in China.

The EASC has paid attention to facilitating the implementation in the process of preparing the EAS on Cash Flow Statement. The cash flow statement has been designed to avoid misunderstanding by the external readers. First, the various sources and uses of cash are disclosed separately. The cash flows generated from the operations of the company are not distorted by large, irregular capital expenditures. Secondly, operating figures based on accrual accounting (i.e. profit from operations, and funds generated from operations) and operating figures based on cash flows (i.e. cash flows generated from operations) are both disclosed in the statement. This enables users to assess the results of both economic and financial activities during the year.

4.2 Different methods in preparing CFS

There are three major categories for sources and uses of cash: operating activities, investing activities, and financing activities. Thus, the cash flow statement is divided into three major sections accordingly. In practice the information for the statement of cash flows is not taken directly from the cash and cash equivalents accounts but rather is derived from income statement and balance sheet data. In other words, it is derived analytically from the company’s accounts. As this statement explains changes in assets, liabilities, and owners’ equity accounts between the beginning and ending balance sheets of the period, a logical way to prepare a cash flow statement is to identify and analyse the causes of differences between account amounts in the beginning and ending balance sheets.

There are two methods of accounting in preparing a CFS according to the complex procedures for developing the net cash flow from operating activities. They are called the direct method and the indirect method. An entity's operations routinely generate cash (especially from the freight in shipping companies) and use cash (for most operating expenses such as bunker consumption, port dues, cargo handling expenses, and so on). Operations ordinarily are a net source of cash; however, operations are a net use of cash if they use more cash than they generate. When the freight market is extremely low, the shipping operations may be a net use of cash as the freight cannot recover the expenses.

The CFS reports the net cash flow generated by the period's operations. The user of a CFS is interested primarily in the net amount of cash generated by operations rather than in the detailed operating cash inflows and outflows. This net amount can be presented in two ways: the direct method and the indirect method. These two different methods have a big impact on the use of a CFS for analysis purposes.

With the direct method of reporting cash flows from operating activities, summaries of operating inflows and outflows are shown and then combined to arrive at the net flow from operations. The new IAS 7 of 1994 encourages reporters to report cash flow from operating activities using the direct method in which an enterprise reports the gross cash receipt or payments arising from each operating activity. It results in a straightforward presentation that is intuitively understandable by users with little or no accounting training. In other words, it gives the clearest picture of where the operating cash came from and how it was spent. However, the direct method fails to give the explanation of why there is a difference between the net income and the net cash flow (Anthony et al, 1995, pp 362-363). Furthermore, it is argued that the direct approach is merely a cash-basis income statement that will confuse users accustomed to accrual-based financial statements.

Most companies, as well as most shipping companies, apply the indirect method when conducing the cash flow analysis, which is based on the primary result for the year. The approach of the indirect method starts with the net income amount and adjusts it for items without liquidity impact and for changes in working capital. It provides insight into the quality of earnings by focusing on the difference between net income and cash flow from operations.

Here is the example of how a shipping company in Denmark named J. Lauritzen who presented its cash flow statement according to the indirect method of accounting.

Unit: DKK 1,000	**1997**	**1996**
Operating profit/(loss)	457,172	-119,322
Depreciation and other non-monetary items:		
Depreciation	719,241	710,191
Profit from the sale of fixed assets	-8,155	-12,789
Exchange rate adjustments	23,459	6,779
Change in provisions	-302,251	-84,522
Change in net working capital:		
Stocks	284,411	30,309
Debtors	-158,393	-110,418
Securities and cash held on trust	185,075	-6,877
Prepayments from customers	-134,824	104,815
Creditors including other short-term creditors	-11,165	152,752
CASH FLOW FROM OPERATING ACTIVITIES	1,054,570	670,918
Financial income	221,236	161,587
financial charges	-436,784	-449,180
CASH FLOW FROM ORDINARY ACTIVITIES	839,022	383,325
Tax paid	-53,191	-68,040
Extraordinary items	-39,000	0
Cash flow from operations	**746,831**	**315,285**

Table 2: Example of cash flow from operations based on the indirect method (source: Report and Accounts, 1997)

It explained its accounting policy in its annual report and accounts (1997) as follows:

> The net cash flow from operations is calculated based on the operating profit adjusted for amounts included in the profit and loss account that have not involved payments received and made and adjusted for increases or decreases in the net working capital.

It can be seen that the indirect method starts with the net income amount, which is accrual-based accounting practices, and adjusts it for differences between revenues and operating cash inflows, and for differences between expenses and operating outflows. As it will not require changes in current accounting practices, no additional reporting costs are incurred to present the statement of changes in financial position.

However, the indirect approach can be misleading since it appears that various adjustments to operating income are cash inflows. For example, some expenses (notably depreciation) subtracted in arriving at net income for the period do not use cash. When the cash flow statement starts with the net income, these expenses should be adjusted to add to cash inflows. For this reason, it can be misunderstood that depreciation is itself a source of cash, which it definitely is not.

Although the indirect method is much harder to understand than the direct method, it has a big advantage in telling the difference between the net cash flow and the net income. In other words, the indirect method can help users to assess the quality of income, which is the ability of a company to turn income to cash. The higher the ratio of cash flow to net income the more reliable the profitability measures as indicator of performance.

These two alternative approaches are merely mechanical devices for arriving at the amounts to be reported in the statement of cash flows. As a result, many standards permit either the direct or the indirect method. In practice, the indirect method has been widely used due to its advantage in showing the differences between the net income and the net cash flows.

4.3 Cash flow analysis in shipping

The purpose of analysing cash flow statements is not solely to understand what has happened in the past. In addition, this analysis serves as a means of projecting what cash flows may look like in the future. A projected cash flow statement is an essential device for planning the amount, timing, and character of new financing. These projections are important both to management in anticipating future cash needs and to prospective lenders for appraising a company's ability to repay debt on the proposed terms. In order to prepare a reliable cash flow forecast, the first necessary step is to analyse the cash flow statement prepared from historical data. This information serves as a basis for preparing the cash budget that relates to the future operation of the company.

Cash flow analysis may not be straightforward sometimes. There is little doubt about the financial health of an unprofitable operation with a negative cash flow or a profitable one with a positive cash flow. However, the practical situations are more complicated. A profitable company with an expanding asset base or shrinking liabilities will often show negative cash flow. In contrast, an unprofitable company with a shrinking asset base or expanding liabilities can show positive cash flow. In both cases, it is essential to understand the causes and implications of the behaviour in order to interpret the cash indicators correctly. In general, cash inflows and cash outflows in the long run must as least be in balance for the company to survive. That is not to say that an occasional period of negative cash flow is not to be tolerated under any circumstances. (Henderson et al, 1989, p 2)

The objective of cash flow analysis is to evaluate how effective an operation has been in generating cash internally to support its incremental asset requirements caused by turnover growth and cover the costs of financing, including interest expense on long term debt and the payment of dividends. In shipping, the new investment in a ship is a huge amount, which may not be possible depending totally upon own cash. However, the ability to generate cash is significant for expansion, as ship financing is usually cash flow-based finance. Afterwards, the big amount of interest expense on long term liabilities should be covered by cash.

Many economic decisions such as ship financing require an evaluation of the ability of an enterprise to generate cash and cash equivalents and also an assessment of the timing and certainty of the generation of cash. For example, some shipping companies would decide to sell ships during a depression period. The proceeds from the sale would improve the cash flow in companies' financial difficulties. Indeed, any sale of properties would have a favourable impact on the result of the organisation, as the sale of assets would contribute to a reduction or elimination of the loss. In shipping, both the expanding or shrinking of asset base and liabilities may have a big influence on cash flow as a ship's price and the debt for it is such a huge amount. As a result, it will be easier for a shipping company to raise money from selling a ship. At the same time, it may also easily lose its liquidity when new investment is needed, even if the financial condition is fine. After all, the result on ordinary activities, such as shipment in shipping companies, should be in the black from a long-term point of view.

The best recent example is Korean shipping. As the financial turmoil happened in Korea, the traditional domestic sources of financing dried up. Unfortunately, many shipping lines were in financial difficulties due to demand and supply. The Korean shipping companies were looking to make cash flow easier. The shipping companies needed to secure their stable financial position through a ship disposal programme. Of the 54 ships sold from the Korean fleet over the past 10 months, 24 were from

Hanjin Shipping fleet. And Hanjin's vessel sales, which were charter-back arrangements, were a reflection of a desperate need to improve the cash position. The point was made by Matthew Flynn (1998) that the Korean ship sales represented more fund raising than anything else if people look at the total cash raised in these painfully negotiated transactions. Hanjin's selling spree should be seen as a fund raising endeavour rather than a retreat from ship operations. It was reported that Hanjin had a number of straight sales of totally seven containerships raising $105 million and its charter-back endeavours raised $343 million. The feature of cash in shipping and also the importance of liquidity for shipping companies can be seen from this example.

Cash flow information is closely related to the analysis of liquidity and financial flexibility in a company. Liquidity refers to the company's ability to meet its current obligations. There, current assets presumably will be converted into cash in order to pay the current liabilities (Anthony, 1995, p 432). Therefore, liquidity can be seen as the opportunity cost of converting assets into cash. It is determined by cash flow from operations. Otherwise, the current obligations can only be fulfilled by external financing. Thus, the greater the reliance on external financing, the less liquid the operation. Financial flexibility is the ability of a company to respond to unexpected requirements by changing the amount or timing of cash flows. It largely depends on the stability of a company's earnings. Both liquidity and financial flexibility are mainly determined by the cash flow generating ability.

It was summarised by Stopford (1997, pp 180-181) that there are four complementary methods of cash flow analysis, which are widely used in the shipping industry. Each of the methods approaches the cash flow from a different perspective, which is appropriate to the needs of different decisions. For the purpose of day-to-day chartering decision-making, the voyage cash flow (VCF) analysis is used. The annual cash flow (ACF) analysis is the format generally used for cash flow forecasting, which is calculated on a year-by-year basis. Moreover, a variant on the annual cash flow analysis is the required freight rate (RFR) analysis, which is used for shipowners to appraise a ship investment in profitability and creditability. The last method, which is concerned with the time value of money, is the discounted cash flow (DCF) analysis. It is used for comparing investment options where the cash flows differ significantly over time.

The business of a shipping company is a complex combination of two different activities: carrying freight and buying and selling capital assets. In recent years, the speculative activity in the ship sale and purchase (S&P) market has increased a great deal. The resulting increased volatility in ship values is consequently placing new emphasis on cash flow considerations for the evaluation of a project's viability over and above the collateral mortgage considerations.

Discounted cash flow analysis is a method, which is widely used to appraise investments in shipping. A net present value of the expected future cash flows can be calculated by applying a certain discount rate, and compared with the amount of the initial investment. That means a stream of fund flows that are to occur over a period of years will be summarised into one single number so that alternative streams can be compared.

Shipping companies have a great deal of influence on their future cash flow when they frame their strategy. The choice between new ships and old ones makes a difference. There is an example that shows how the DCF analysis method can be used in choosing ship investment projects.

Suppose, there are two alternative investment projects. Investment 1 is to buy a second-hand vessel, which costs $10,000,000 and the disposal value is $2,000,000. Investment 2 is to buy a big new vessel, which is relatively more expensive, and it can be sold at the price of $12,000,000 after 6 years. The discount rate is 10%, which applies to both investment projects. Both revenue and cost are expected to increase by a certain percentage through out the period. The calculation is shown in the following table.

Table 3: Example of Discounted Cash Flow (DCF) Analysis for Ship Investment Options ($) (amended from Stopford, 1997, p 190)

Investment 1

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	**Total**
Vessel Cost	10,000,000							10,000,000
Disposal							2,000,000	2,000,000
Revenue		2,600,000	3,120,000	3,432,000	3,775,200	4,152,720	4,567,992	21,647,912
Cost		1,000,000	1,100,000	1,320,000	1,584,000	1,900,800	2,280,960	9,185,760
Cash Flow	10,000,000	1,600,000	2,020,000	2,112,000	2,191,200	2,251,920	4,287,032	4,462,152
Discounted Factor	1	0.909	0.826	0.751	0.683	0.621	0.564	-
Discounted Cash Flow	- 10,000,000	1,454,545	1,669,421	1,586,777	1,496,619	1,398,265	2,419,918	25,546

Investment 2

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	**Total**
Vessel Cost	25,000,000							25,000,000
Disposal							12,000,000	12,000,000
Revenue		4,500,000	5,400,000	5,940,000	6,534,000	7,187,400	7,906,140	37,467,540
Cost		1,800,000	1,980,000	2,376,000	2,851,200	3,421,440	4,105,728	16,534,368
Cash Flow	25,000,000	2,700,000	3,420,000	3,564,000	3,682,800	3,765,960	15,800,412	7,933,172
Discounted Factor	1	0.909	0.826	0.751	0.683	0.621	0.564	-
Discounted Cash Flow	25,000,000	2,454,545	2,826,446	2,677,686	2,515,402	2,338,365	8,918,921	-3,268,635

The above example shows how the DCF analysis method functions. The cash flows show the net revenue expectation after deducting the cost in each period. It seems investment 2 would get more gross cash flows than investment 1 ($7,933,172 to $4,464,152) from the whole 6-year period. However, when the DCF analysis takes the value of time into consideration, the judgement can be made on a more reasonable basis. Investment 1 would generate a net present value $25,546, but investment 2 would have a negative present value $3,268,635. Thus, the DCF analysis helps people to make their decisions in investment appraisal.

In conclusion, the cash flow analysis is very important as it can contribute to a complete financial analysis. It enables the analyst to project future cash flows by using DCF and assess the quality of a company's income by telling the ratio of cash flow to net income. It can also evaluate the ability of a company to maintain a certain level of operations, which can be ensured by being able to generate adequate cash flow from operations. This is essential for a company's future growth. Furthermore, cash flow analysis focuses on determining a company's financial flexibility and liquidity, which are important measures of a company's financial health and performance in today's business and financial environment (Henderson, 1989, pp 70-73).

5. The need for disclosing financial risk in shipping

Since shipping is a competitive, cyclical and highly volatile industry, financial management is a significant matter for the industry. According to Drewry Shipping Consultants (1996, p 33), shipping is a highly capital intensive industry and is highly leveraged. Economist commentators generally agree that demand for shipping capital is likely to continue at around $20 billion per year during the 1990s and perhaps beyond. As a general rule, about 80% of a vessel’s acquisition cost is covered by finance of one kind or another. Therefore, debt is an important element of capital, but liquidity is also critical. At the same time, shipping is an industry characterised by great complexity and by a magnitude of interests, which include those of the ship designer, the shipbuilder, the shipowner or operator, the cargo owner, the shipper and the consignee. Thus, how to manage such a kind of business and disclose relevant financial risks become interesting topics.

Financial risk is becoming a focal point in the process of a country’s economic development. It is vital for countries to realise financial risk as it can cause immediate and explosive chain reactions. New financial tools and products have emerged one after another, technology and knowledge have become increasingly complicated and specialised, and the rapid development of information technology has accelerated the pace of globalisation.

As the trend gains momentum, fuelled by the wide use of advanced communications, capital transactions as well as the international capital flow are becoming easier. The number and quantity of new financial instruments has increased exponentially in recent years. As a result, the only limitations on the creation and distribution of new financial instruments seem to be the identification and quantification of financial needs and the imagination and skills of investment and financial advisers. In the current context, the possibility of financial risks has become considerably greater. The risks associated with the new financial instruments may be classified as credit risks, legal risks, and liquidity risks. The credit risks are related to the capital that is financing enterprises. The legal risks exist for moving monies across international borders. The liquidity risk might occur if transactions are defaulted (UNCTAD, 1994, p 6). In a developing country like China, direct foreign investments are expanding as well as the markets for trading financial instruments. Emerging capital markets are experiencing demands for ways to manage currency and interest rate risks of investors and borrowers. Therefore, China should develop effective strategies to enhance financial security so as to ward off financial risks resulting from intensified economic globalisation.

The financial woes of some Asian countries have given some lessons to China. It was concluded by Gao (1998) that weak points in the fundamentals and financial systems of the Southeast Asian economies were mainly responsible for the nations' trouble. These weak points include economic bubbles, loose regulation over the financial sector, a large proportion of non-performing bank loans, overdue dependence on short-term foreign debts and huge deficits of balance of international payment. To shelter the country from financial risks, China is required to strengthen regulation over the financial sector and further improve its system of financial supervision and control. On financial legislation, China needs to draw lessons from Southeast Asia's financial turmoil and take legislative measures to avert financial risks. It is also very important for the country to enhance public awareness of financial risks and confidence in the government. Moreover, to prevent and minimise financial risks, measures should be taken in accordance with the internal and external causes. So the analysis of causes should be done in advance. In general, it is imperative for China to establish an anti-risk system.

Financial risk is not only a matter related to the financial systems in countries or any financial institutions, but also a significant item for individual companies. With the increasing public awareness of financial problems and more attention being paid to financial risks, some relevant requirements have been formulated. The International

Accounting Standards Committee (IASC) has approved two relative standards and has tried to guide companies in this area. One of the standards is about the disclosure and presentation of financial instruments, called IAS 32. Another standard, IAS 39, is about the recognition and measurement of financial instruments. It requires certain disclosures about financial instruments in addition to those required by IAS 32. As shipping is known as a high risk and capital intensive industry, where the financial tools are widely applied, these standards may have influences on the financial reporting of shipping companies. All these may give some references to Chinese shipping companies, though they may not be in the same situation. It is worth learning from others' experiences if it is helpful to the growth of businesses.

5.1 The financial risk in shipping

Understanding and managing risk is of vital importance in all drives for improvement. The shipping industry operates in an increasingly complex world in which technological, financial and organisational changes take place more quickly, and these changes are more extensive and run deeper than ever before. Rapid changes lead to higher risk and a greater need to understand the risk. For shipping companies, it is important to build and strengthen their ability to predict changes and their consequences, and make their efforts to reduce risk.

People involved in shipping are very familiar with the idea of risk. Much of the risk is connected with operations such as the risk of changes in prevailing charter rates or vessel values. However, it is also important to consider the risks that attach to a company's financial arrangements. A financial arrangement might easily be affected by risk in shipping. For example, a company might pay for a new vessel in yen, largely with the proceeds of a variable rate yen loan. The earnings from operating this vessel may not be in yen but other currencies. However, the interest and principal payments of the loan must be met in yen as they fall due. Now the company is facing the risk of exchange rate movements, as it is necessary to change the other currencies into yen to fulfil its obligations. Moreover, a company might be affected by many other risks, for example, interest rate movements, or changes in the financial position of the companies in the industries with which they deal. (Chopping, et al. 1997)

The International Accounting Standard (IAS) identified the following relevant risks associated with financial assets and liabilities:

- price risk — broken down between currency risk, interest rate risk (repricing and maturity dates, fixed and floating interest rates, maturities) and market risk;
- credit risk (maximum exposure and significant concentrations);
- liquidity risk and;
- cash flow risk.

Shipping is perceived to be a high risk industry. This is primarily a reflection of the unpredictable volatility of freight rates and asset values, which can be substantial. Therefore, shipowners are exposed to significant financial and commercial risks. However, the financial risks which the shipping business generates may sometimes appear pale compared to the commercial risks, which are well recognised, as the freight market is known by its volatility. Nevertheless, the financial risks can certainly upset cash flows and dent profitability. For example, exchange rate fluctuations can have a big impact on revenues. As a result, increasing use of hedging techniques by shipowners to manage financial risks has been observed (Drewry Shipping Consultants, 1996, pp 86-87).

5.2 The disclosure of financial risk in shipping

Today’s shipowners have to play in the financial market as they are playing in the shipping market. Financial risks exist together with the use of the financial instruments. Therefore, it is important to focus on the disclosure of the use of financial instruments. Financial instruments are generally defined to include monetary assets and liabilities — cash, receivables, payables, equity securities and derivative instruments. In order to disclose the financial risks, the financial statements should contain sufficient information about the use of derivatives to provide an understanding of the purposes for which transactions are undertaken, the extent of transactions, the degree of risk involved, and how the transactions have been accounted for. Accounting standards-setting bodies in each country should, as a matter of priority, provide comprehensive guidance on accounting and reporting of transactions in financial instruments. (UNCTAD, 1994, p 6)

Sufficient information should be provided to anyone reading the accounts when the assessment of these risks needs to be done. This means that accounts should give some indication of how future external changes might affect the company.

Many financial risks are disclosed, more or less, in some shipping companies' financial reports. As an example, some disclosure was stated in the annual report of Maersk Line Shipping Company.

> End of year assets and liabilities denominated in foreign currencies are converted into Danish kroner at exchange rates at 31 December. Where it is considered prudent a provision is made to offset exchange rate risks.

Moreover, the result of exchange rate adjustments in 1998, mainly of USD debts and USD receivables, resulted in a net gain of DKK207 million. As there was a net loss of DKK1321 million, provisions against future currency risks were increased in 1998 by DKK 250 million. Some listed shipping companies in China are also required to disclose the influences caused by the changes of policies or regulations. For example, how the interest rate reduction affects the company is one of the items which needs to be disclosed. However, these are not enough according to certain international standards. The companies are required to disclose information about significant terms and conditions that may affect the amount, timing and certainty of future cash flows. Moreover, the standards do point out that most of the information required will probably be presented through a combination of narrative and numbers. Therefore, substantial variations might be seen in the form in which companies choose to present the information.

IAS 32

A relatively new International Accounting Standard (IAS 32 — Financial Instruments: Disclosure and Presentation) is applicable to all companies internationally from the 1st January 1997. It is intended to require companies to disclose greater details of their financial assets and liabilities, and to disclose information showing how future changes might affect them. In other words, companies should disclose the level of their exposure to the effects of future changes in related aspects.

The aim is to ensure that anyone reading accounts will have a clearer picture than before of how a company's financial arrangements affect its position, its current and future performance, and its likely future cash flows. Though this will not take the place of the readers' assessment of what external changes are likely to happen, the readers will be better able to determine what effect their estimates of changes will have.

IAS 32 can be summarised as two main requirements: one for presentation and another for disclosures. Classification, which reflects substance but not form, should be done to the financial instruments. They should be classified by issuers into liabilities and equity, which includes splitting compound instruments into these components. The standard clarifies some kinds of debts and emphasises that the cost of a financial liability is deducted when measuring net profit or loss. It points out that offsetting on the balance sheet is permitted only if the holder of the financial instrument can legally settle on a net basis. The terms and conditions are basically required in the disclosures. The other items, which need to be disclosed, are interest rate risks, credit risks, fair values of financial instruments, assets below fair value, and hedges of anticipated transactions (IAS, 1998).

Some of this information has routinely been provided by shipping companies in the past. Some has not. For example, the report and accounts (1997) of J. Lauritzen A/S has explained how the financial instruments were disclosed. "Financial instruments are at market value and gains/losses are included in financial income/expenditure apart from those financial instruments which were defined as hedging measures when the arrangements were made." Furthermore, the result of hedging is reflected in the relevant accounting item.

As the IAS 32 standard deals with all types of financial instruments, the main impact for most shipping companies will be a need for additional disclosure of the terms of their financing arrangements for vessels or newbuildings. It affects both recorded assets and liabilities and items which do not appear on the balance sheet. This means that companies may need to provide more details of the terms of the financial assets and liabilities that they have. For example, previously companies would probably just have mentioned the existence of a guarantee and the amount that they have given in respect of borrowings of companies with which they are connected. However, they must provide more details of the terms of the underlying borrowings now. Therefore, the main challenge for shipping companies is how to reduce the risks of granting credits in the market (Chopping, 1997).

The impact of IAS 32 will be mainly on the disclosure that is provided in the notes to company accounts. While this standard alone will not make it possible to assess the precise impact of future changes on a company, it will at least give anyone reading the accounts a slightly better idea of what the effects might be.

IAS 39

IAS 39 was approved by the Board of IASC in December 1998, and will be effective for financial statements for financial years beginning on or after 1 January 2001. IAS 39 supplements the disclosure requirements of IAS 32 for financial instruments.

Under IAS 39, all financial assets and financial liabilities are recognised on the balance sheet, including all derivatives. They are initially measured at cost and subsequently all financial assets are remeasured to fair value. After acquisition most financial liabilities are measured at original recorded amount less principal repayments and amortisation. Only derivatives and liabilities held for trading are remeasured to fair value.

IAS 39 gives guidelines of how to recognise net profit or loss for the period when the financial assets and liabilities are remeasured to fair value. It also establishes conditions for determining when control over a financial asset or liability has been transferred to another party.

A very important aspect in IAS 39 is about hedge accounting. It is permitted if an enterprise designated a specific hedging instrument as a hedge against a change in value or cash flow of a specific hedged item. There are certain circumstances, which provide that the hedging relationship is clearly defined, measurable, and actually effective. For a fair value hedge, any gain or loss on the hedging instrument and on the hedged item would be included in net profit or loss for the period. For a cash flow hedge, the gain and loss on the hedging instrument is reported as a separate component of equity until the hedged transaction affects net profit or loss (IAS, 1999).

6. The ways of improving shipping financial reporting in China

Since the open policy was adopted in China, rapid developments in economy as well as in shipping have been made. According to the report of the Chinese State Statistics Bureau (China Daily, 1998b), China has achieved a net average annual growth rate of 9.8 per cent between 1979 and 1997. The Chinese ocean-going fleet consisted of totally 37.3 million dwt in 1998. The remarkable growth in China has been accompanied by a massive restructuring of the economic system, including its financial institutions and accounting system. As China is experiencing the transition from a centrally planned economy to a socialist market economy, proper and relevant management systems should be rebuilt. New accounting laws are being introduced and the accounting system is currently undergoing substantial changes. Recently, the Ministry of Finance in China made the cash flow statement one of the required statements in financial reports. Nevertheless, the development of accounting standards in both China and around the word is in need of improvement at the individual national level as well as harmonisation at the multinational level.

Some changes in the world make people think of financial management as a more effective way of managing businesses. Firstly, the environment of ownership, management and operation in shipping has changed dramatically, greatly affecting ship owners and managers (Sörlie, 1997). For example, there is no unique role of accounting systems in present day organisations. It is discovered that the use made of the accounting information depends upon not only the type of organisation whose transactions are being reported, but also the people involved in the organisation, and the society within which the organisation operates.

Secondly, new technology also changes the ways of management. For example, the introduction of computers into a company's business system may greatly alter the accountant's organisational duties. Automating the accounting information system means the accountant no longer has to perform time-consuming functions such as recording journal entries, posting these entries to ledger accounts, and preparing trial balances. Instead, the computer is able to handle these data-processing activities on a routine basis. As a result, accountants are becoming involved in the more dynamic functions of their organisations, such as helping in management decision making and designing more effective business information systems. (Moscove et al, 1992, p ix)

Thirdly, people try to use accounting as a useful tool to report more and more information. For example, sustainable development has become one of the most widely discussed topics in transnational corporations, governmental bodies and academic institutions. The environmental influence of the business is one piece of information which should be disclosed by financial reporting, because accounting in its broadest sense can play, and does play, a number of roles in the company pursuit of sustainability. The environmental reporting is required, as it is significantly important for management style and enterprise strategy. (UNCTAD, 1996, pp 6-7)

The changes in shipping are increasingly affecting the financial management of the shipping companies, so they will have to adapt their performance accordingly. If the enterprise has a good financial reporting system, the users would get useful information from what the enterprise reported. The process of dealing with the data should be under control, and the results should be presented in a comprehensible and acceptable way. Many countries make efforts to regulate accountancy by standards and rules. However, more attention should be paid to the quality of accountants and the basic practice to achieve the goal. Therefore, the improvement should be directed towards developing an approach to accounting legislation and practices and in the building of accountancy professions.

The improvement of financial reporting is a significant matter for the further development in China. China has experienced remarkable growth since it began to liberalise its economy in 1979. This growth has been accompanied by rapid increases in international trade and inward investment through a variety of vehicles including bonds, equity investment and joint ventures. All these require a good quality financial reporting system to create more opportunities for Chinese companies to enter into the international capital markets and the international trade markets. The ways to improve financial reporting can be done from mainly three aspects: regulation, ordinary control, and people, as described in the following section.

6.1 Completing practicable accounting regulations

The need for greater standardisation in accounting measurement and reporting is an aspect, which is receiving greater attention in both developing and developed countries. In China, the new accounting rules have been introduced in a piecemeal manner over the last decade and many new standards are still to be implemented. However, the urgent task is to complete practical accounting regulations, which can give the enterprises guidelines for preparing financial reports of good quality.

The Ministry of Finance is responsible for all accounting and reporting matters including the setting of accounting standards in accordance with the Accounting Law in China. They have tried to set some standards, which will be more compatible with international practice in market economies. Therefore, they scheduled a program to formulate and promulgate an initial system of Chinese standards during a three-year period ending in 1995. As part of the program, some legal requirements were adopted in China in 1993. For example, Accounting Standards for Business Enterprises No. 1 — the Enterprise Accounting Standard (EAS) was effective for enterprises as of 1 July 1993. As the first major piece of accounting legislation that applied to all enterprises irrespective of their form of ownership, it provides the general requirements on a theoretical basis. It has also introduced the idea of reporting information, which is useful to all external users. However, this is only the uniform application of accounting concepts, principles and rules, reporting procedures and legislation. The EAS requirements are not only different from IASs in some important respects, but they are also far less detailed. The lack of detail in the EAS requirements can most obviously be seen in consolidated accounts.

According to Nobes and Parker (1988, pp 332-333), standardisation may also involve the adherence to more unified charts of accounts and statements, which specify the classification categories by economic units, industries and sectors, and which preferably are applicable on an international scale. However, specific standards, which would be the guidelines for accounting and reporting, have not been completely adopted yet in China. The reasons may vary due to different aspects, but in general the environment for developing accounting standards has not been formed yet.

Now, China is in the process of establishing a complete set of accounting standards. Eight new accounting standards covering specific aspects have been presented in the past two years. These new accounting regulations, largely based upon IASs, are still being introduced and the accounting system is currently undergoing substantial changes.

More industry-specific regulations will be phased out and financial reporting should be regulated by a uniform and detailed set of accounting standards. The effects of new accounting standards can be seen in two ways. It has effectively regulated the accountancy in the companies. On the other hand, some companies have difficulties in following the rules for different reasons. One reason is because the new standards are too theoretic to follow in practice. Another is that the accountancy of basic aspects in some companies is too weak to meet the requirements of new standards. Therefore, more practicable standards should be drawn up. Otherwise, though there is a standard to stipulate the procedure of conducting and disclosing the transactions, it would be a mess in practice. For example, the new Cash Flow Statement Standard is considered by the officials of IASC to be very close to the IAS. However, many companies prepared CFS according to their imagination. They put all the unclear cash flows into the “others” in order to match the final results. The new standard loses its meanings if it is not practicable.

There is a tendency that the standards are set throughout a region, which includes many countries. The point of view is that the justifications for existing variations are better dealt with through amendments to a common system rather than developing a completely different set of rules. It is encouraging to note the degree of convergence of accounting practices in these countries towards International Accounting Standards. The standard setters are increasingly convinced of the need for convergence of accounting rules globally into a common accounting language. There are many reasons for this convergence such as savings of standard-setting resources, cross-border investments, international financing and, in particular, credibility of financial reporting. The recent crisis in Asia has shown the need for reliable and transparent accounting to facilitate and support the development of the economies of individual countries. Transparency in accounting supports sound decision-making by investors, lenders and regulatory authorities.

6.2 Enhancing the functions of financial control

Good quality financial reporting is based upon a good process of preparing and conducting transactions. People cannot expect that relevant and objective statements come out of fabricated accounts. Thus, one way to improve financial reporting is to enhance the functions of financial control within the organisations. This creates a solid foundation for good financial reporting, which makes the process of interpretation and comparison far simpler than it would otherwise be.

As previously described, the present situation in accountancy did not fit in with the needs of economic development and management requirements; especially the accountancy at the primary level is relatively weak. Some companies try to conceal the true financial results. They fabricate evidence and falsify accounts and statements for their own purposes. Even further, a few accountants act in violation of the occupational rules to exercise their powers to participate in some illegal activities. All these phenomena make proper financial control an urgent task.

Although the clear and definite authority of control of accountants is stipulated in the Law on Accounting in China, the state-owned assets have been draining away in practice. Accounting has become a means of gaining a clique and personal benefits. The corruption in SOEs and some abnormal phenomena as described above are results of lack of effective financial control systems.

A financial control system in the flow path of capital should be set up based on the analysis of the company's operation process. Financial control is a way to manage and adjust the flow of funds and substances within an organisation. Here is an illustration of how such a system looks like.

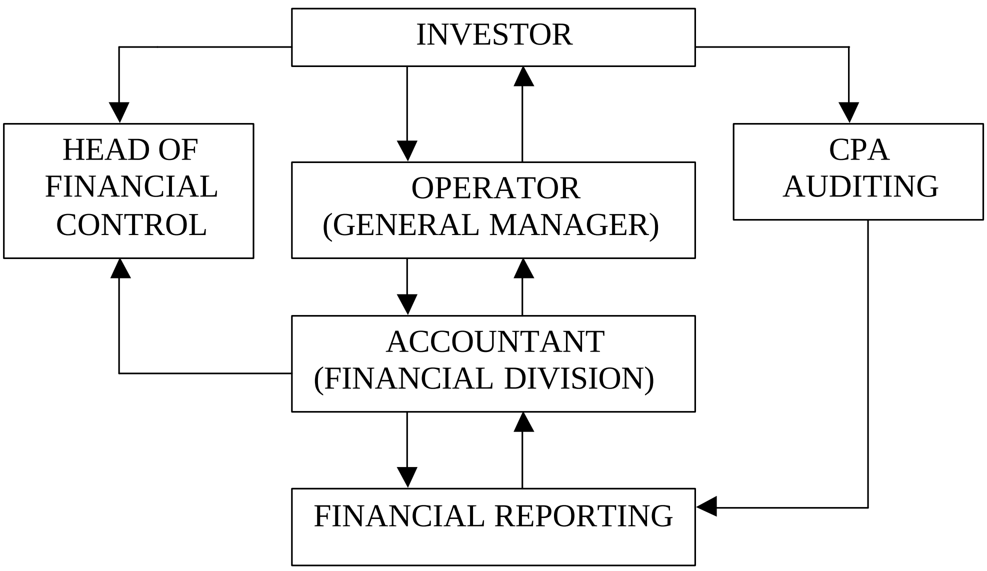

Figure 3: The financial control system of capital flows (amended from Liu, 1998)

The above figure shows the financial control functions in an organisation. Investors should exercise supervision of the process of capital flows in order to be on guard against operational risks. Investors will be aware of potential risks through supervising its capital flow path. The head of financial control is appointed directly by the investor, but he or she does not participate in the decision-making activities in operational management. By the report of the head of financial control, the investor will know the process of financial operations and adjust in time the activities, which deviate from the objectives. The accountants in the financial division, whose job is to prepare the financial reports, are employed by the general manager. The financial reports are audited by the Certified Public Accountant (CPA), who is appointed by the investor.

Both the head of financial control and the CPA are responsible to the investor. However, the former is independent from the operator and only reports to the directors. The CPA is independent from the directors and the general manager. The report of the auditors is for the benefit of the shareholders, and should be based on an objective and fair view.

The financial control system functions in the ordinary operations and helps the organisations to avoid risks. The big companies, which went into bankruptcy, did have accountants and accounting systems. Of course, the bankruptcy does not happen over night. The causes are bad financial results, an irrational ratio of assets to liabilities, and errors on investment decisions over a long period. If there is a sound financial control system, the tragic consequences can be avoided completely.

As mentioned above, the reporting of accounting information is extremely important because it fits the needs of the internal and external users. However, all the results come out from the initial economic activities. The fundamental aspects such as recording activities, data processing and analysing causes are the basis of accurate final information. Accounting as a kind of financial control is an important function of management. It is the process by which management assures that resources are obtained and used effectively and efficiently in the accomplishment of the goals and objectives of a shipping enterprise.

6.3 Educating and training people

The present chaotic situation in accountancy has greatly been influenced by the personnel factors. It is common in companies, which lack of accountants both in quantity and in quality. As a result, the proper accounting procedures cannot be carried out. Bad mistakes in accounts have been made very often. As a result, all these make the quality of accounting information to be a big question.

People should be the heart of a company's effort. In order to cope with complicated situations and an ever changing environment, accountants need to improve their professional skills, judgement and maturity. They are trained to lead problem solving and improve operational efficiency. Especially, the accountants need to acquire the knowledge and the skill to search through available economic and financial information for clues that will serve as guides for future action. Therefore, personal initiative, innovation and respect for the individual are some of the key management attitudes that will help to establish excellence in performance.

Accountants, who are good at accounting, are needed in today's environment. However, accounting should not be confused with bookkeeping. Accounting is concerned with identifying which information will help the various decision-makers, how it should be measured and how it should be communicated to them. This involves accountants in designing and implementing systems within which financial information can be processed, and in establishing the rules and procedures to be used in processing the information (Arnold et al, 1995, p 12). That means the requirements of competent accountants are relatively strict.

One of the big problems existing in the shipping industry is lack of specialised accountants. This has direct effects on the performance of the financial reporting. People who have financial knowledge about the industry and skills are very important in shipping. The accountants in a shipping companies are generally not strong in terms of shipping knowledge, shipping strategic thinking, or risk assessment. They may contribute to the company in some areas such as market research and financial analysis, but still not very often. Professional accountants may be hired to give tax and bookkeeping advice. The requirements of the commercial and tax code may cause accountants to be legal experts, and their expertise in 'real' accounting and control methods consequently may be limited. These requirements have undoubtedly hampered the enhancement of accounting.

Recognising that a growing sector requires the services of well-trained and experienced accountants and auditors, China has made enormous efforts to train accountants, but generally just at the fundamental level. The development of the industry requires high quality personnel, including in the accounting area. Shipping companies are paying more attention to the people. An adequate term in this area is human resource management. While people management has largely centred around personnel logistics and finding practical solutions, human resource management, in addition to practical and theoretical training, assists staff in career development by evaluating personal progress and work performance.

The huge demand in accounting specialisation can be found in the process of the development of the economy. The Chinese government has recently set a target that all enterprises of sufficient size should be audited by qualified Certified Public Accountants (CPAs) by the year 2000. Selected state enterprises started to be independently audited by qualified CPAs in 1997. Although many people are trained in the university or by the CPA program every year, a considerable shortfall in competent accountants still exist.

It is important to disseminate as widely as possible accounting and auditing training information so as to provide management with the tools necessary to understand western accounting principles. There is a need to develop training programmes designed to provide a basic understanding of accounting, the ability to analyse and interpret financial statements from commercial entities, and a general understanding of the mechanics of the accounting process. The training activities can be carried out in co-operation with international accounting institutions in order to combine resources effectively and to avoid unnecessary duplication (UNCTAD, 1994b, p 15). A programme of training high-level management has been done in Shanghai with the co-operation of the Association of Chartered Certified Accountants (ACCA) in the UK since 1996. The programme focused on helping managers to understand the financial statements and how they can be effectively used in decision-making. It provides a good opportunity for management with the necessary tools to understand western accounting principles.

7. Conclusion ¾ Accounting as an effective tool for managing the shipping business

Accounting is aptly called the language of business. From the view of an organisation, accounting must have at least two functions. First, accounting represents one source of information which enables the managers to steer the organisation towards the satisfaction of its participants' objectives. It provides information for both planning and control purposes. In other words, the accounting system should provide information to meet the needs of management. The information should be available internally to disclose what has happened in the past. Management must be fully informed about the present. The current information may be especially meaningful when comparisons are to be made. Then, the future too is often similar to the past and present, the economic events may become the starting point in projecting the future. Therefore, the task of accounting is to provide clear statements of the financial consequences of each of the alternative ways to achieve the goals. Accounting also provides information on actual costs and revenues in a form which facilitates comparison with the planned costs and revenues in the process of monitoring the outcome of the chosen alternative. In other words, accounting furnishes management with information in measuring and controlling routine operations. Financial reporting is a view from inside to see the company backwards. The internal strengths and weaknesses analysis is important to the managers. They need to know what is happening to businesses and they find it convenient to study financial statements in their offices as a way of finding out what is going on.

Secondly, accounting provides information for planning and control purposes to groups other than management. Here the role of accounting is to help those groups to evaluate the management's performance in achieving organisational goals and to assess their own positions in relation to other groups and the organisation as a whole. It should also give some indication of any likely changes in organisational performance and the impact of those changes on the position of each group relative to other groups (Arnold et al, 1985, p 16). In other words, accounting provides information for external reporting. Accountants do their best to translate business reality into a set of financial statements. The information as performance measurement is useful both for evaluating past performance and planning for future activities.

It is clear that both functions of accounting are concerned with providing accounting information to decision makers. Every individual or group in society makes economic decisions about the future, and each requires economic information in order to make rational decisions. Accounting has something to contribute to each of these decisions. Of course, financial reporting as a kind of measurement should be served for actions.

These functions of accounting in theory have been recognised by people worldwide. They have been applied to practice in many developed countries but not some developing countries like China. The discussion about the necessity and importance of cash flow disclosure and financial risk reporting shows the critical role of accounting, especially for a business like shipping. In practice, a number of various management means are needed to manage shipping business, and accounting should function as an effective tool. People involved in the shipping business have gradually realised the role of the accounting tool, utilised it in practice and, of course, benefited from it. In China, as the quality of financial information needs to be improved, the accounting tool has not been in use properly. However, with the development of the industry, the enhancement of competition consciousness, and the completion of relevant regulations, the shipping companies in China will use accounting as an effective tool in management and finally benefit from it.

Bibliography

Anthony, R N; Reece, J S & Hertenstein, J H (1995). *Accounting: Text and Cases* (Ninth Edition). US: Richard D. Irwin. INC.

Arnold, J; Hope, T & Southworth, A (1985). *Financial Accounting.* UK: Prentice-Hall International Ltd.

China Daily (1998a). CD News. *Securities market serves state sector.* Date: 01/06/98.

China Daily (1998b). CD News. *China a world leader with reforms.* Date: 10/27/98.

China Daily (1999). *Integration in global economy beneficial.* Date: 01/22/99. http://www.chinadaily.com.cn/cndydb/1999/01/d4-2prog.a22.html. (03/18/99)

Chopping, D & Powell, P (1996). 'Deciphering systems of accounting'. *Lloyd's Shipping Economist* (1996, June), Volume 17. pp 10-12.

Chopping, D & Stephens, M (1997). 'IAS 32 — disclosing financial risk'. *Lloyd's Shipping Economist* (1997, April), Volume 27. pp 9-10.

Downard, J M (1984). *Managing ships.* London: Fairplay Publications, LTD.

Drewry Shipping Consultants (1996). *Shipping finance.* London: Drewry Shipping Consultants.

EASC (1998). *The briefing of EASC in a press conference.* Beijing: the Ministry of Finance.

Flynn, M (1998). *Hanjin holds on to container services despite dash for cash. & Charter back strategy retains alliance position.* July 7, 1998. Lloyd's List on disk.

Gao, S Q (1998). China Daily: *China to learn lessons from Asian Crisis*. http://www.chinadaily.com.cn/cndydb/1998/03/d4-198.c30.html. (03/18/99)

Harding, J (1999). 'Zhu threatens yellow card for bad management'. *Financial Times,* Weekend March 6/7.

Henderson, J M & Maness, T S (1989). *The financial analyst's deskbook: a cash flow approach to liquidity*. New York: Van Nostrand Reinhold.

IAS (1998). *Current Standards: International Accounting Standards IAS 32 – Financial Instruments*. http://www.iasc.org.uk/frame/cen2_132.htm (03/25/1999).

IAS (1999). *Current Standards: International Accounting Standards IAS 39 – Financial Instruments*. http://www.iasc.org.uk/frame/cen2_139.htm (03/25/1999).

IASC News (1997). *News: International Accounting Standards Committee News.* http://www.iasc.org.uk/news/cen8_022.htm (03/25/1999).

IASC News (1999). KPMG UK has announced its support for IAS as the accounting standards for Europe and the world. http://www.iasc.org.uk/news/cen8_022.htm (03/25/1999).

Liu, Z W (1998). 'The Method of Financial Control in Enterprises'. *Accounting Analysis*, Volume 11, p 33. Beijing, China.

Moscove, S A & Simkin, M G (1992). *Accounting Information Systems ¾ Concepts and Practice for Effective Decision Making.* New York: John Wiley & Sons, Inc.

Mottram, D (1999a). 'Strategic Management Concepts Applied to Shipping'. *Shipping management strategy*. Lecture Handouts. World Maritime University, Malmö, Sweden.

Mottram, D (1999b). *Shipping and Project Finance*. Lecture Handouts. World Maritime University, Malmö, Sweden.

Nobes, C & Parker, R H (1988). *Comparative International Accounting* (Second Edition). New York: St. Martin's Press.

Preliminary Annual Accounts (1998). (Maersk Line). A/S Dampskibsselskabet Svendborg & Dampskibsselskabet AF 1912 A/S. Copenhagen, Denmark.

Report and Accounts (1997). J. Lauritzen A/S Shipowners. Copenhagen, Denmark.

Roberts, C; Weetman, P & Gordon P (1998). *International Financial Accounting – A Comparative Approach.* Great Britain: Financial Times Professional Limited.

Stephens, M (1996). 'Calculating future shipping investments'. *Lloyd's Shipping Economist* (November 1996), Volume 22. pp 9-14.

Stopford, M (1997). *Maritime Economics.* London: Routledge 11 New Fetterlane.

Sörlie, S (1997). 'Shipping Management: Who will lead, who will follow, who will fall out.' *The Shipping Professional*, March 97.

Tracy, J A (1989). *How to read a financial report: wringing cash flow and other vital signs out of the numbers* (Third Edition). New York: John Wiley & Sons, Inc.

UNCTAD (1994). *International Accounting and Reporting Issues: 1994 Review*. Geneva: United Nations Conference on Trade and Development.

UNCTAD (1996). *International Accounting and Reporting Issues: Environmental Accounting.* Geneva: United Nations Conference on Trade and Development.

Wan, L X (1998). China Daily: *Amid fierce global competition, shipping sector sailing steadily*. http://www.chinadaily.com.cn/cndydb/1998/05/ (03/18/1999).

Xu, B L (1998). China Daily: *Auditors to scrutinise misuse of public cash.* http://www.chinadaily.com.cn/cndydb/1998/12/ (03/18/99).

Zhang, D M (1998). China Daily: *Nation to strengthen enterprises auditing.* http://www.chinadaily.com.cn/cndydb/1998/12/ (03/25/99).