IMPAIRMENT ANALYSIS: COMPARISON OF IMPAIRMENT OF LONG-LIVED ASSETS BETWEEN US GAAP AND IFRS

James W. Penner, Department of Accountancy
Jerry G. Kreuze, Haworth College of Business
Sheldon A. Langsam, Western Michigan University

CASE DESCRIPTION

This case study compared the accounting behind the impairment of long-lived assets between US GAAP and IFRS. The case is appropriate for either senior level or graduate accounting students. The case is designed to be taught in one class hour and is expected to require five to ten hours outside of class.

CASE SYNOPSIS

This case study provides accounting students an opportunity to explore a real life example of how accounting estimates and choice of reporting standards impact financial statements. Students will analyze the differences between US GAAP and IFRS for the impairment of long-lived assets. In addition, they will be required to create an estimate of the impairment calculation for nine capesize vessels purchased by Genco Shipping & Trading at the top of the boom market in 2007. The calculation will expose students to the significant amounts of ambiguity often found in accounting estimates. The range of reasonable answers could vary from an impairment of long-lived assets of over $600 million to no impairment at all. These wide ranges of estimates can provide an enlightened discussion of the use of estimates in accounting. Professional judgment will be tested as students wrestle with how answers vary considerably based on the accounting framework chosen.

Keywords: Asset Impairment, US GAAP, IFRS.

INTRODUCTION

Genco Shipping & Trading is a public company and trades on the New York Stock Exchange under the ticker symbol GNK. In 2014 Genco went through a prepackaged bankruptcy where debt holders received the majority of the new equity in the company. The prior equity holders received stock warrants for a total of six percent of the equity of the new company. As a US public company, GNK files its financial statements with the Securities and Exchange Commission (SEC) using US Generally Accepted Accounting Principles (US GAAP). They are a transporter of dry bulk materials, including iron ore, coal, grain, and many other raw materials on large vessels among international shipping routes. Genco Shipping & Trading went public with 17 vessels and has expanded operations through the acquisition of additional vessels to bring the total number of ships up to 53 as of December 31, 2012. Although acquiring assets over time, Genco's largest acquisition of vessels occurred in June of 2007 when they purchased 9 capesize vessels for approximately $1.1 billion. These vessels were delivered to Genco between the third quarter of 2007 and the first quarter of 2010 when the last vessel was built.

The dry bulk shipping industry has experienced a significant boom and bust cycle over the last decade. The Baltic Dry Index (BDI), a shipping and trade index for 4 classes of ships (capesize, panamax, supramax, and handysize), measures the daily average rental rate to ship raw materials across a variety of international shipping routes. The higher the BDI, the more a company can rent its vessels for. As seen in figure 1, the BDI has fluctuated from over 11,000 to below 1,000 since GNK went public. The daily rental rate for capesize dry bulk vessels has ranged from over $150,000 per day to under $5,000 per day. (*RS Platou*, 2013). Following the leasing rates, the fair market value of all classes of ships has varied significantly over the last decade, with the capesize asset prices ranging from $150 million in early 2008 to under $40 million in 2011. (*RS Platou*, 2013*)*.

The Securities and Exchange Commission has raised questions about the estimates used by the company for the impairment of long lived assets. Item 6 in the SEC comment letter to Genco dated March 16, 2011 addressed this concern and is listed below, the entire letter can be found at the SEC website at

http://www.sec.gov/Archives/edgar/data/1326200/000000000011016598/filename1.pdf

> <u>Impairment of long-lived assets, page 67</u>
>
> 6. In the fifth paragraph of this section, you state that assumptions used to develop estimates of future undiscounted cash flows are based on historical trends. Please expand this disclosure to discuss the time periods involved in your use of historical trends, and how current charter rates compare to the rates you used in your analysis.

Additional information is presented after the assigned questions to help in creating the estimates needed for the impairment calculation.

This case study requires you to research the relevant accounting literature and create an estimate of the calculation for impairment of long-lived assets included in Table 1. Table 1 includes; the name of the vessel, the year it was built, the size of the vessel, the purchase price, and the carrying value as of December 31, 2012. While Genco is a US listed public company filing under US GAAP, many of the largest drybulk shipping companies file financial statements using IFRS. With some companies filing financial statements using US GAAP and some filing under IFRS, it may create difficulty in comparing financial statements. Genco should be aware of its competition and how alternate accounting frameworks impact operating results, especially in light of the fact that these frameworks are interchangeable.

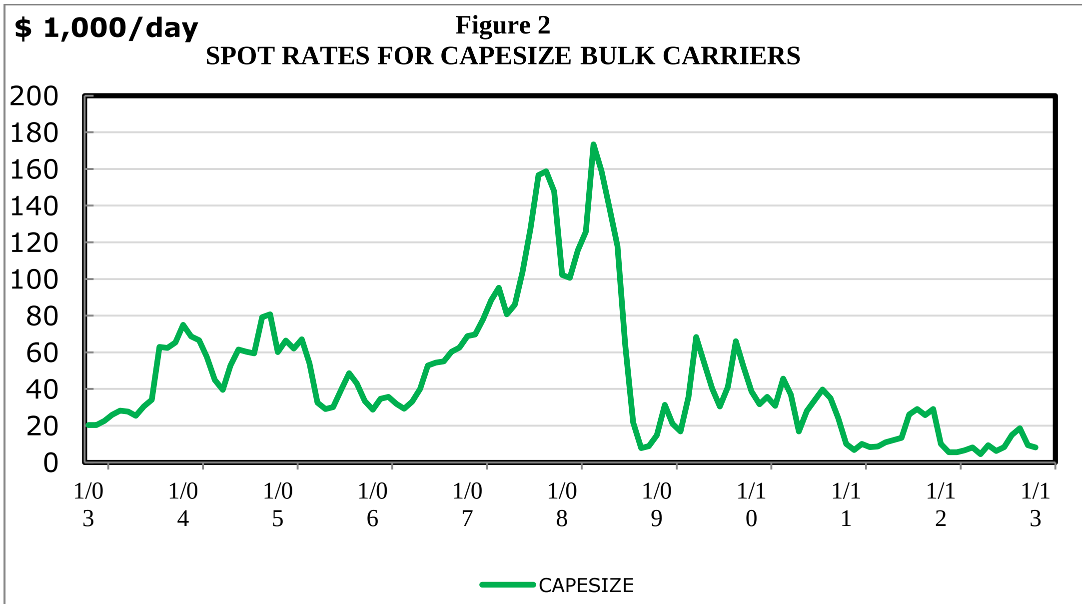
Table 1
CARRYING VALUE OF NINE CAPESIZE VESSELS ORDERED IN 2007

Name of Vessel	Year Built	Size in Tons	Purchase Price in 000's	Carrying Value at 12-31-2012 in 000's
Genco Augustus	2007	180,000	125,000	103,137
Genco Tiberius	2007	175,000	125,000	103,325
Genco London	2007	177,000	125,000	104,685
Genco Titus	2007	177,000	125,000	105,182
Genco Constantine	2008	180,000	129,000	110,334
Genco Hadrian	2008	170,500	121,000	108,377
Genco Commodus	2009	170,500	121,000	110,825
Genco Maximus	2009	170,500	120,000	110,805
Genco Claudius	2010	170,500	120.000	112,517
Totals		1,571,000	1,111,000	969,187

Note: These figures are taken from the December 31, 2012 Genco Shipping and Trading 10K.

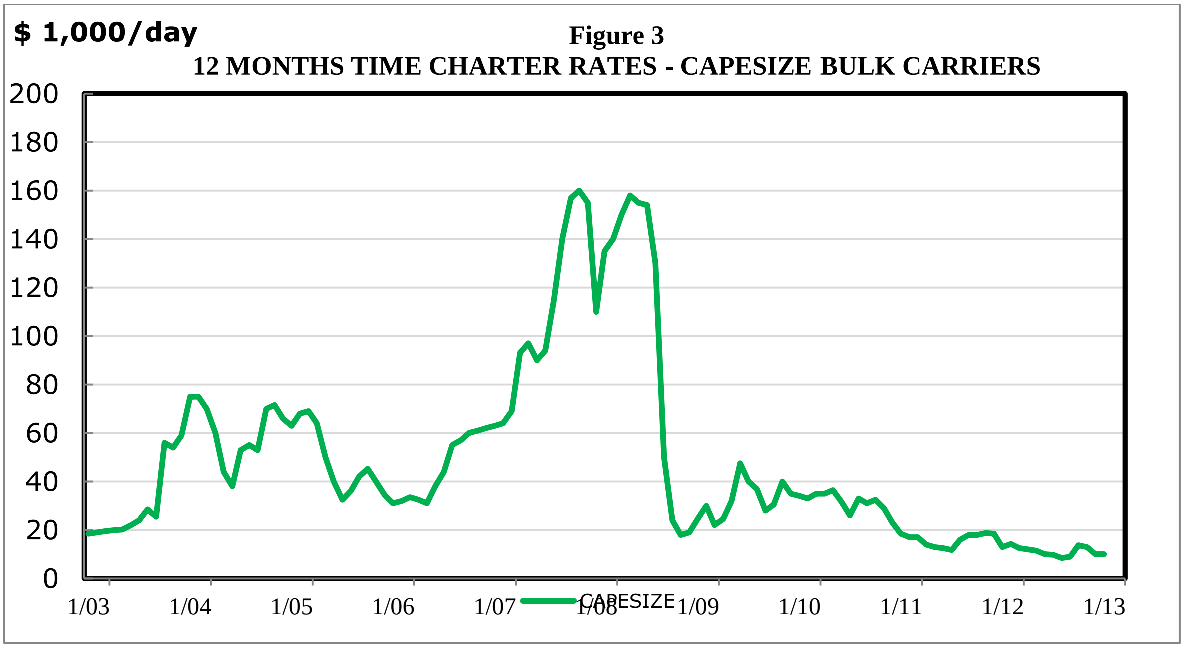
Figure 1
BALTIC DRY INDEX

Figure 2
SPOT RATES FOR CAPESIZE BULK CARRIERS



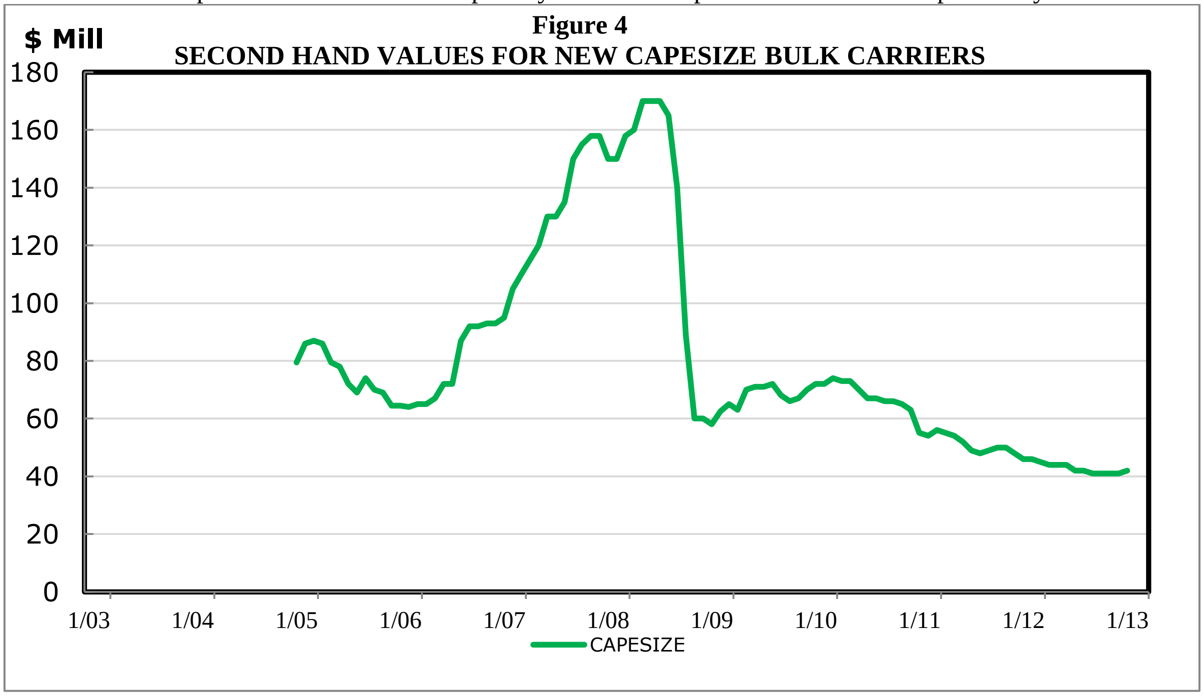
Note: This table provides the revenue rate per day to lease a ship for a single voyage for Capesize dry bulk vessels.

Figure 3
12 MONTHS TIME CHARTER RATES - CAPESIZE BULK CARRIERS



Note: This table provides the revenue rate per day to lease a ship for 12 months for Capesize dry bulk vessels.

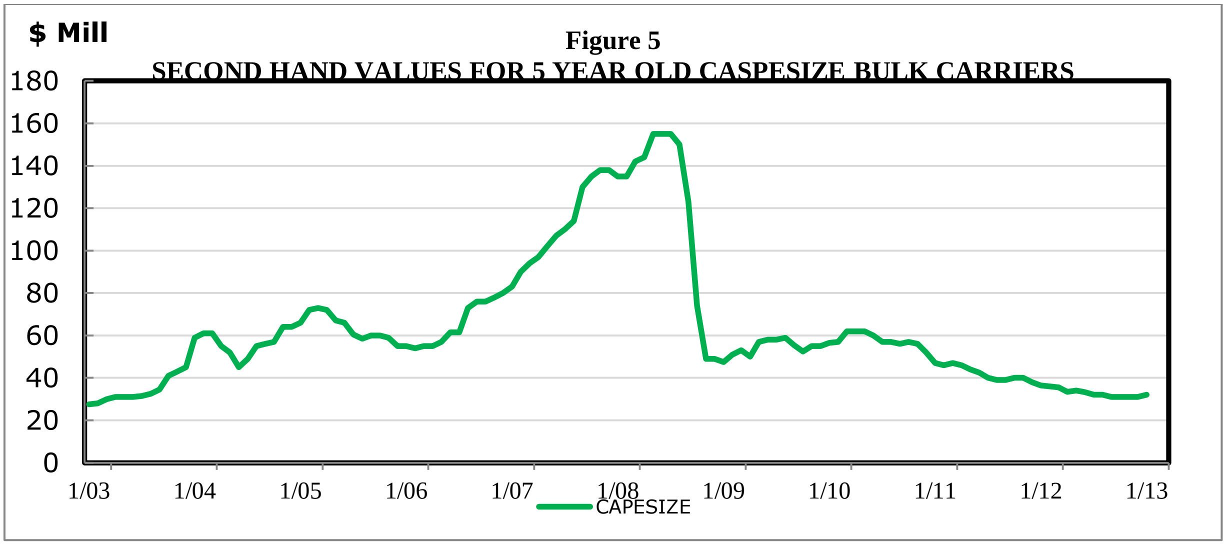
Figure 4
SECOND HAND VALUES FOR NEW CAPESIZE BULK CARRIERS



Note: This table presents the fair market value of newly built ships straight from the shipyard.

Figure 5

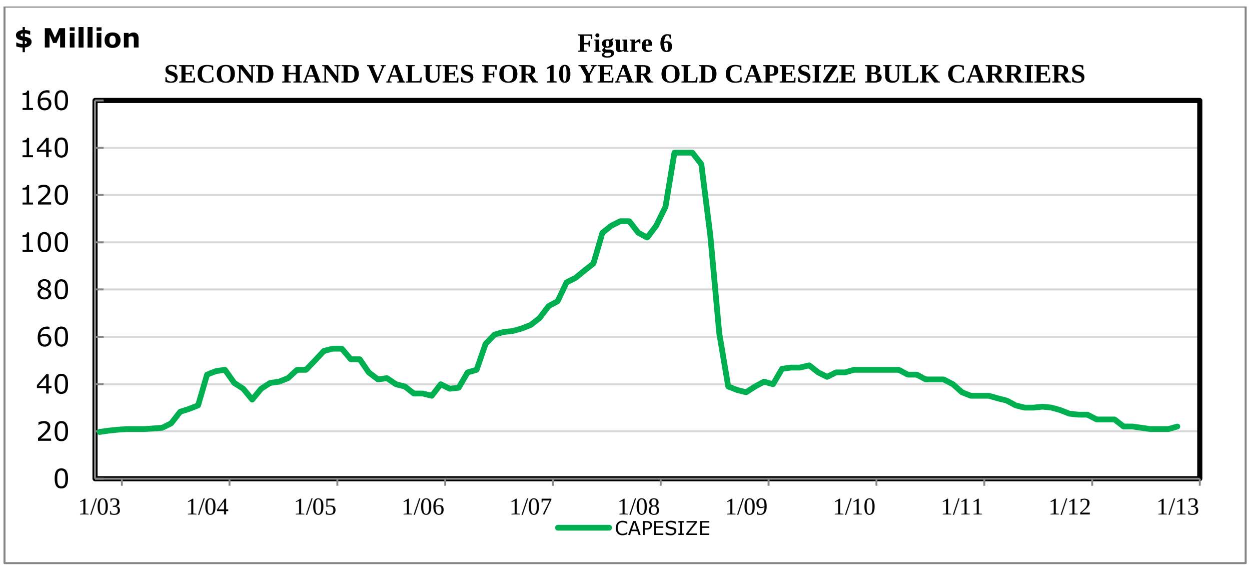
SECOND HAND VALUES FOR 5 YEAR OLD CASPESIZE BULK CARRIERS



Note: This table presents the fair market value of 5 year old ships bought on the open market.

Figure 6

SECOND HAND VALUES FOR 10 YEAR OLD CAPESIZE BULK CARRIERS



Note: This table presents the fair market value of 10 year old ships bought on the open market

ADDITIONAL CASE INFORMATION

Vessel Depreciation and Expenses - When leasing a ship, Genco is still required to pay operating expenses including employee wages, insurance, spare parts, and so forth. The company estimated these costs to be approximately $6,000 per ship per day for 2013 for a capesize vessel in their 2012 10K. Dry bulk vessels are required to have significant inspections every five years after being built with the fifth inspection being expensive and very time consuming. As a result, most companies (including Genco) elect to depreciate vessels on a 25-year useful life. The scrap value of the vessels is roughly equal to the weight of steel in the ship times the price per ton of steel. Recent scrap values for similar sized ships have been approximately $6 million.

Revenue Rates - In prior years, Genco has maintained a utilization rate across all of their ships in excess of 98%, meaning the ship is earning revenue more than 360 days a year. The amount of revenue earned by a vessel follows the laws of supply and demand. If there are four lessee's wanting to lease a capesize vessels and only three vessels available, the price will increase until one of the lessee's is priced out of the market. This is what happened during 2007 and 2008, when the Chinese economy was booming and the need for additional raw materials soared. However, during the last few years, the supply of ships has significantly outpaced the growth in demand for new ships. As a result, the shipping industry now has idle ships which are driving revenue rates down.

Estimated Revenue Rates – The shipbroker reports state the revenue earned by ships under various leasing arrangements. The spot market provides the estimated revenue earned by a ship per day for a single voyage at this time (i.e. carrying iron ore from Brazil to China). The time charter (TC) market provides the estimated revenue per day for a set period of time (i.e. a one year time charter in which the lessor can decide how they wish to utilize the ship for the one year). The age of a vessel has a minimal impact on the daily rental rates. These reports (figures 2 and 3) provide a history of what lease rates have been, but it is necessary to create an estimate of future revenue rates based on the past information. In addition to using historical data, an active futures market is traded providing another estimate for future revenue rates for each of the classes of vessels. These future markets are designated as Forward Freight Arrangements (FFA's).

Fair Market Value of Assets – The shipbroker reports do not list the exact value of a particular vessel, instead you are required to create an estimate with the information provided. First, the size or class of the vessel is required to determine the fair market value. For Genco, you are to examine their nine capesize vessels for impairment. Next, the age of the vessel will significantly impact the fair market value of the vessel, however the shipbroker reports will not list each year individually. For instance, if you have a seven-year old vessel, a reasonable estimate would be to average the value of a five- and ten-year old vessel. Figures 4 through 6 provide estimated fair value amounts for new, five-year old, and ten-year old vessels, respectively.

Use the preceding information and any other relevant reliable information in creating your estimates.

REFERENCES

ASC 360-10-35

Beaudoin and Hughes. 2014. APT, Inc.: An Application of Impairment Testing and Fair Value Estimation Using International Financial Reporting Standards. *Issues in Accounting Education.* 29:1, 181-194.

Coetzee, S. and A. Schmulian. 2012. A Critical Analysis of the Pedagogical Approach Employed in an Introductory Course to IFRS. *Issues in Accounting Education*. 27:1, 83-100.

Genco Shipping and Trading Limited, December 31, 2012 Form 10-K filed March 1, 2013, via EDGAR

Hodgdon, C., S. Hughes, and D. Street. 2011. Framework – based Teaching of IFRS Judgements. *Accounting Education: an International Journal*. 20:4, 415-439.

International Financial Reporting Standards. IAS 36

Kirschenheiter, M., and N. Melumad. 2002. Can "Big Bath and Earnings Smoothing Co-exist as Equilibrium Financial Reporting Strategies. *Journal of Accounting Research* 40 (3): 761-796

McAnally, M.L., A. Srivastava, and C. Weaver. 2008. Executive Stock Options, Missed Earnings Targets and Earnings Management. *The Accounting Review* 83 (1): 185-216.

RS Platou. 2013. The Platou Report 2013

Securities and Exchange Commission (SEC). 2011 Re: Genco Shipping and Trading Limited Form 10-K for the Fiscal Year Ended December 31, 2010, File No. 001-33393