

## Introduction

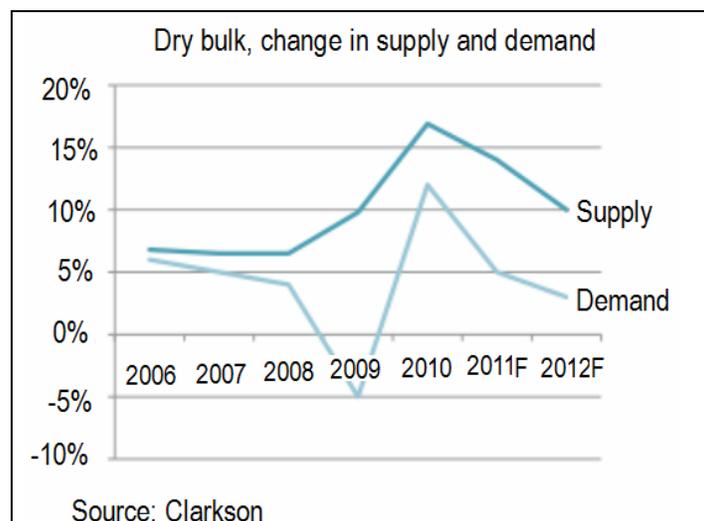
In 1988, the *Basel Accord (Basel I)* was reached which set the common bank capital requirements in 12 industrial countries. The intent of *Basel I* was to promote the stability of the international banking system. The economic justification that drove *Basel I* was to mitigate the perceived risk after the deregulation and globalization of financial systems during the 1980s. The drafters were mainly concerned about the accumulation of bad loans in developing countries.

Under *Basel I*, bank regulators bore the obligation to scrutinize the adequacy of bank capital so as to ensure international banks (those operating in the major industrialized countries) would hold capital in proportion to their perceived credit risk. For those assets that are in the categories subject to a higher risk weighting, the bank regulators would set a higher risk-based capital requirement

In order to maintain the expected capital adequacy ratio, major international banks would have a strong economic motive to substitute out the high-risk assets (such as commercial loans) into less risky assets (such as government securities). The question is: Whether money lending for ship financing should be regarded as high-risk assets by major international banks? If ship financing money can be viewed as loans for high-risk assets, then prospective ship purchasers may not enjoy the financial advantage of a low-interest rate environment.

## Shipping Finance under the *Basel Accord*

If ships are classified as high-risk assets, then lending banks have to hold more capital, which in effect increases the cost for a bank to hold such assets. Economically speaking, it reduces the supply of credit available to ship purchasers. According to some maritime economists, allocating credit away from ship financing would help to reduce the overall building activities for new ships. Given the limited alternatives for credit availability from the non-banking financial system, this would help to improve the existing disequilibrium condition of the dry bulk market as indicated by the following figure:



On the other hand, some shipping economists observe that credit would not be allocated away from ship financing activities. These economists built their theories on the hypothesis that demand for maritime capital is inelastic even when the lending rates are high – therefore, some competitive banks just charge ship purchasers a higher interest rate to compensate for the additional cost of holding more capital.

Regardless of the different views, the 1988 *Basel Accord* did contribute to a decrease in the supply of overall lending credit.

### ***Basel II***

*Basel II* was published in June 2004. One of the *Basel II* concerns was how to maintain the consistency of regulations, so that the capital requirement would not cause competitive inequality among different international banks.

The drafters of *Basel II* believed that by establishing an international standard, it could protect the international financial system should a major bank or a series of banks collapse. In theory, *Basel II* attempted to accomplish this by setting a capital management requirement so that banks could have adequate capital for the risk relative to their lending and investment practices. Therefore, the greater risk to which a bank is exposed, the greater the amount of capital the bank needs to hold. Politically, most international bank regulators found it difficult to implement *Basel II* in the regulatory environment prior to the banking crisis of 2008. *Basel II* was effectively superseded by the 2009 *Basel III*.

### ***Basel III***

*Basel III* was designed to ensure that big banks were adequately capitalized so that they could survive when depositors withdrew their money all at once.

Unlike the previous two *Basel Accords*, *Basel III* was designed in response to the 2008 financial crisis (which mainly related to the financial structures unique to the US and European banking systems), some international legal experts, such as professor Kenneth Dam from University of Chicago, believed that there were inherited difficulties in enforcing the *Basel III*. Different views were seen from the consultation stage. For example, in the period between January 2008 and August 2011, the Basel Committee opened 17 rulemaking proposals for comment, and it received 147 comments on those proposals.

In addition to setting a requirement on the amount of core capital and common equity that banks must keep against their loans (at least, compared to the pre-Basel requirements in most countries), the Basel Committee took it further - it ventured into the use of modern financial tools, such as loss-given-default risk estimates, executive compensation strictures, as means of supervision. As result of the pressure, *Basel III* is being implemented slowly. The drafters gave internationally active banks until 2018 to adopt the new leverage ratios required under *Basel III*.

### ***Results of the Quantitative Impact Study (QIS results)***

The Basel Committee conducted a comprehensive QIS exercise to assess the impact of capital adequacy standards announced in *Basel III*. A total of 263 banks from 23 Committee member jurisdictions participated in the QIS exercise, of which 35% participant banks were classified as Group I banks:

Group 1 banks (Tier 1 capital > €3 billion + well diversified + internationally active)	94
Group 2 banks (banks missing any one of the above features)	169
Total Participants	263

The Basel Committee made its estimate by assuming a full implementation of the final *Basel III* package, based on data as of year-end 2009. The results of the QIS exercise indicated that even Group 1 banks in aggregate would have had a shortfall of €577 billion at the end of 2009.

The drafters of *Basel III* expect the required capital and liquidity standards will gradually raise the level of high-quality capital in the banking system. The long transition period provides banks with ample time to move to the new standards. The drafters anticipate that *Basel III* will cause a change in banks' profitability and behavioral responses, such as changes in bank capital or balance sheet composition by substituting away the risky assets in their lending portfolios.

### KPMG Survey on Ship Owners' Expectations under *Basel III* Implementation

John Luke from KPMG observes that *Basel III* would reduce the traditional capital sources of shipping financing. KPMG conducted a survey and found that most maritime market players believed that it is necessary to develop new equity and loan financing sources (see the following table). All respondents recognize the predicament in which shipping banks find themselves and the effects of future financing in the maritime sector – in terms of both the volume of required equity capital and of the securing of loan finance.

Which future actions you plan to use in mitigating future risk?	
Procure new equity capital sources	64%
Procure new loan capital sources	47%
Sale of ships	43%

Since *Basel III*'s requirements concerning capital buffer, core capital ratio and liquidity ratios are all directly related to the risks of assets that a bank would hold in its portfolios; this would force the bank to reassess the risks of holding these assets. KPMG expected that the banks will be more restrictive in granting new loans in ship financing and they will pass the rising cost of capital to the debtors. In order to successfully apply for the bank loan, the ship purchasers must demonstrate that the risks of holding a particular ship can be appropriately supported by equity.

Additionally, in order to reduce refinancing damage in default cases, international banks would adopt a stricter attitude with breaches of credit clauses. KPMG's survey also indicated that many ship owners believed that the bank would likely change the repayment schedule; for example, the average credit maturities of 12 to 15 years will reduce to 8 or 9 years in the foreseeable future. As a counter measure, some financiers suggest that for loans that requiring regular capital repayment, it might be better to complement the financing package by bonds. Under such arrangement, at least part of the loan does not require mid-maturity repayments.

One of the interesting findings by the KPMG survey is that some German shipowners see that foreign banks will adopt the *Basel III* requirements more slowly than German banks, and this will lead German shipping companies seeking overseas banks as their financing partners.

In responding to the question of how a bank would estimate the risk of holding a ship, over 90 percent of those participated in the KPMG survey stated that the banks will likely to look at the charter agreements

as a mandatory component of future new financing. Besides charter agreements, the surveyed shipowners believed that banks will likely to put different value ratings on the charterers according to their verifiable creditworthiness.

## Conclusion

It is clear that the financing of ships has become more difficult under *Basel III*. In order to obtain bank financing during the construction phase of a new ship, the ship owners must put more effort in obtaining valuable guarantees in the first place (charter and opex guarantees); and in doing so, ship owners have to select charterers with strong history of creditworthiness. Even those who can successfully obtain the loan, they are expecting a rise in credit costs due to rising margins for the banks and a shortening of credit maturities.

With the influences of *Basel III*, therefore, shipowners are less likely to enjoy the financing advantage which normally can be expected under a low interest rate environment.

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