

## Ναυτιλιακή Χρηματοδότηση



Αθήνα, 7/6/2007  
Κωνσταντίνος Δημητρίου  
Account manager, NBG

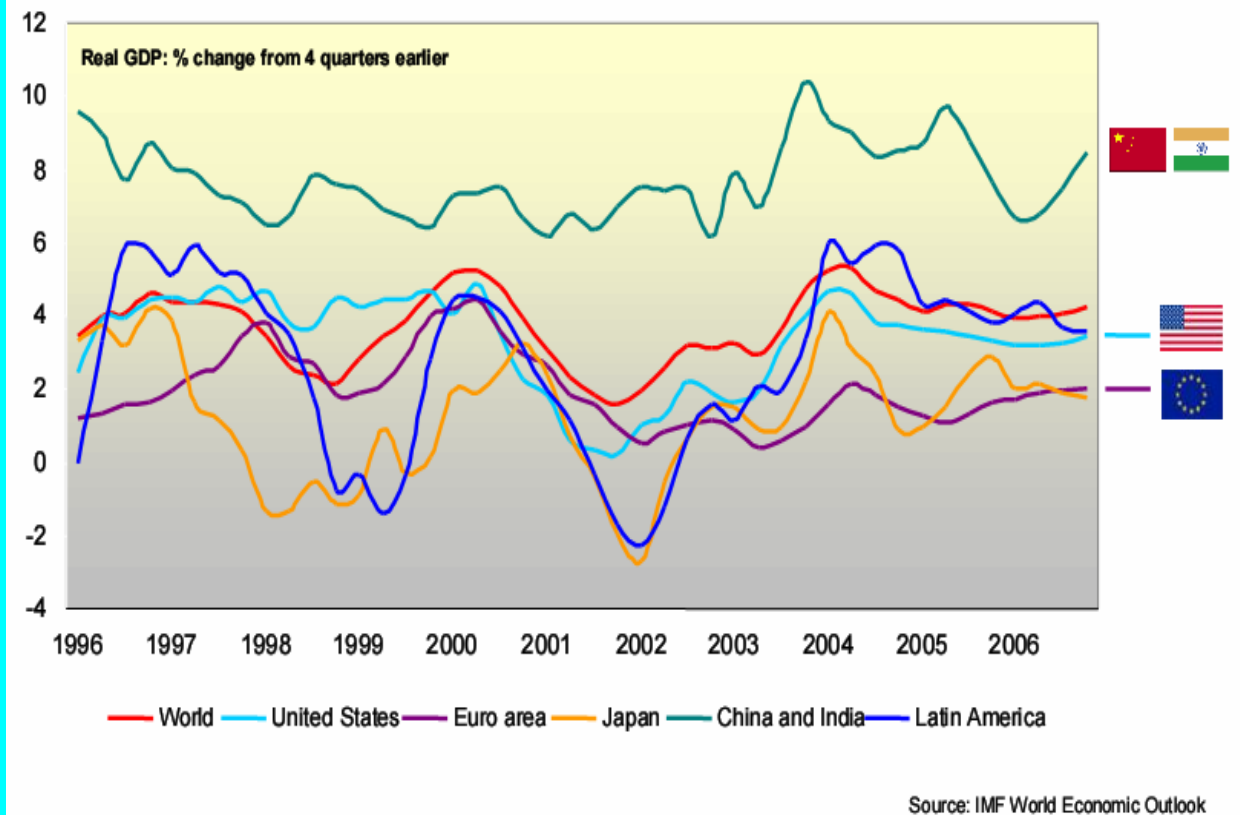
Οι Ναυτιλιακές Αγορές θεωρούνται υψηλού κινδύνου

- Λόγω των έντονων διακυμάνσεων (cyclicality)
- Λόγω των σημαντικών κεφαλαίων που απαιτούνται

## Market Outlook

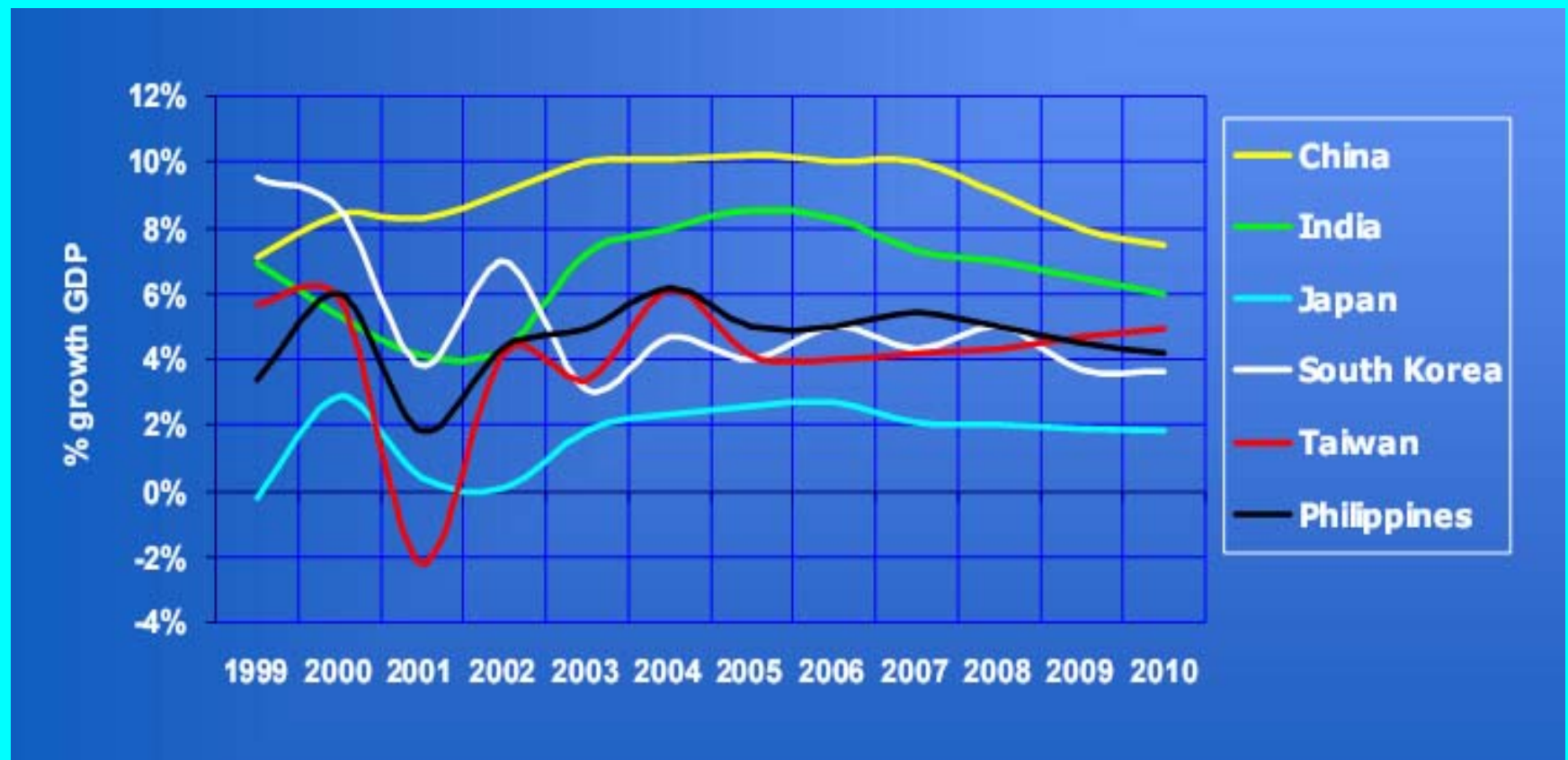
- **World economic environment**
- Tanker market
- Dry bulk market

## World economy



- World GDP and trade growth rates are expected to lower, but still remain at healthy levels
- Oil price will remain high

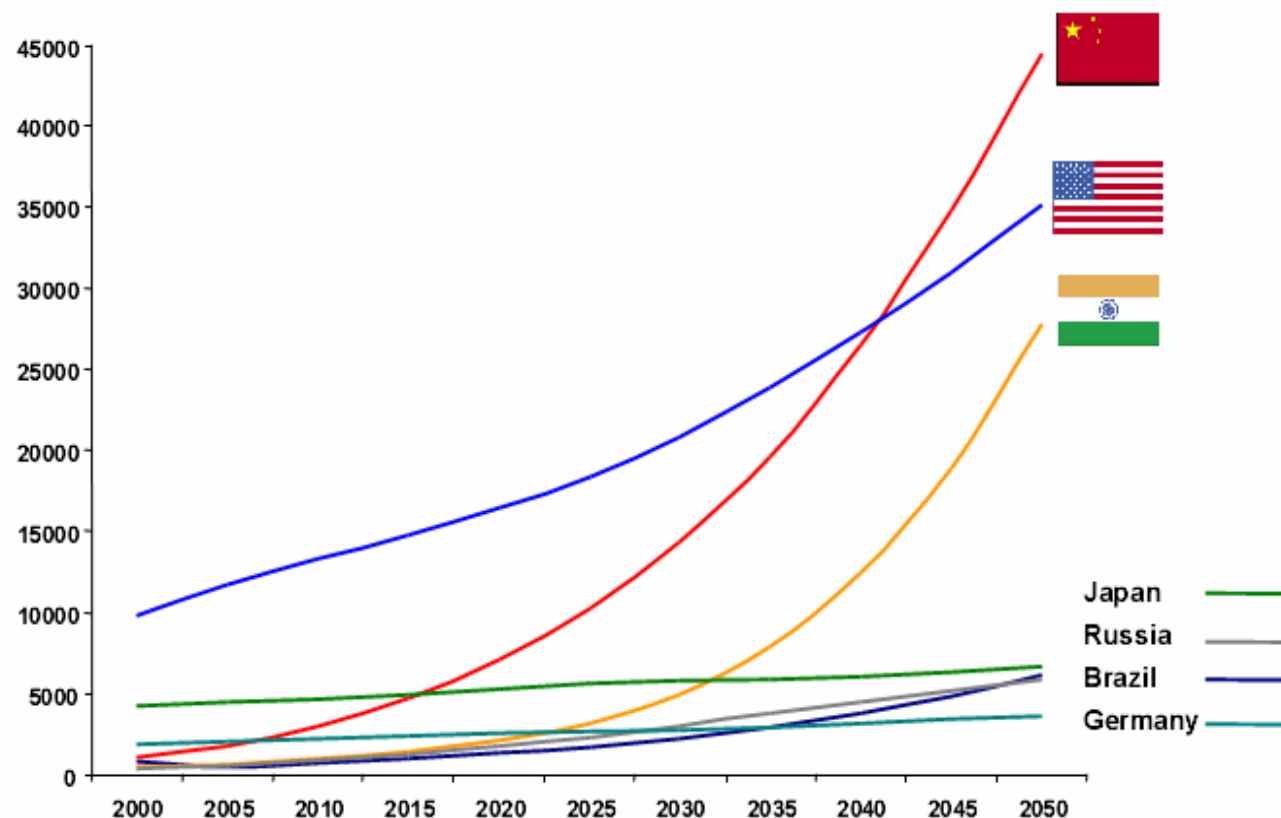
## Asia economic outlook 2007-2010



Source: Braemer Seascope

## GDP growth 2000 to 2050 (forecast)

[2003 US\$ billion]



Source: Goldman Sachs: The Path to 2050

## Ευκαιρίες – Κίνδυνοι για την Ναυτιλία

- Η διατήρηση των ικανοποιητικών ρυθμών ανάπτυξης στις οικονομίες της Ασίας και της Ευρώπης.
- Η συνεχιζόμενη ανάπτυξη του παγκόσμιου εμπορίου
- Πολιτική αστάθεια στις πετρελαιοπαραγωγές χώρες και η αύξηση της τιμής του πετρελαίου
- Ενδεχόμενη οικονομική ύφεση των ΗΠΑ
- Ενδεχόμενη αύξηση των μακροπρόθεσμων επιτοκίων
- Η επανεμφάνιση του προστατευτισμού

## Market Outlook

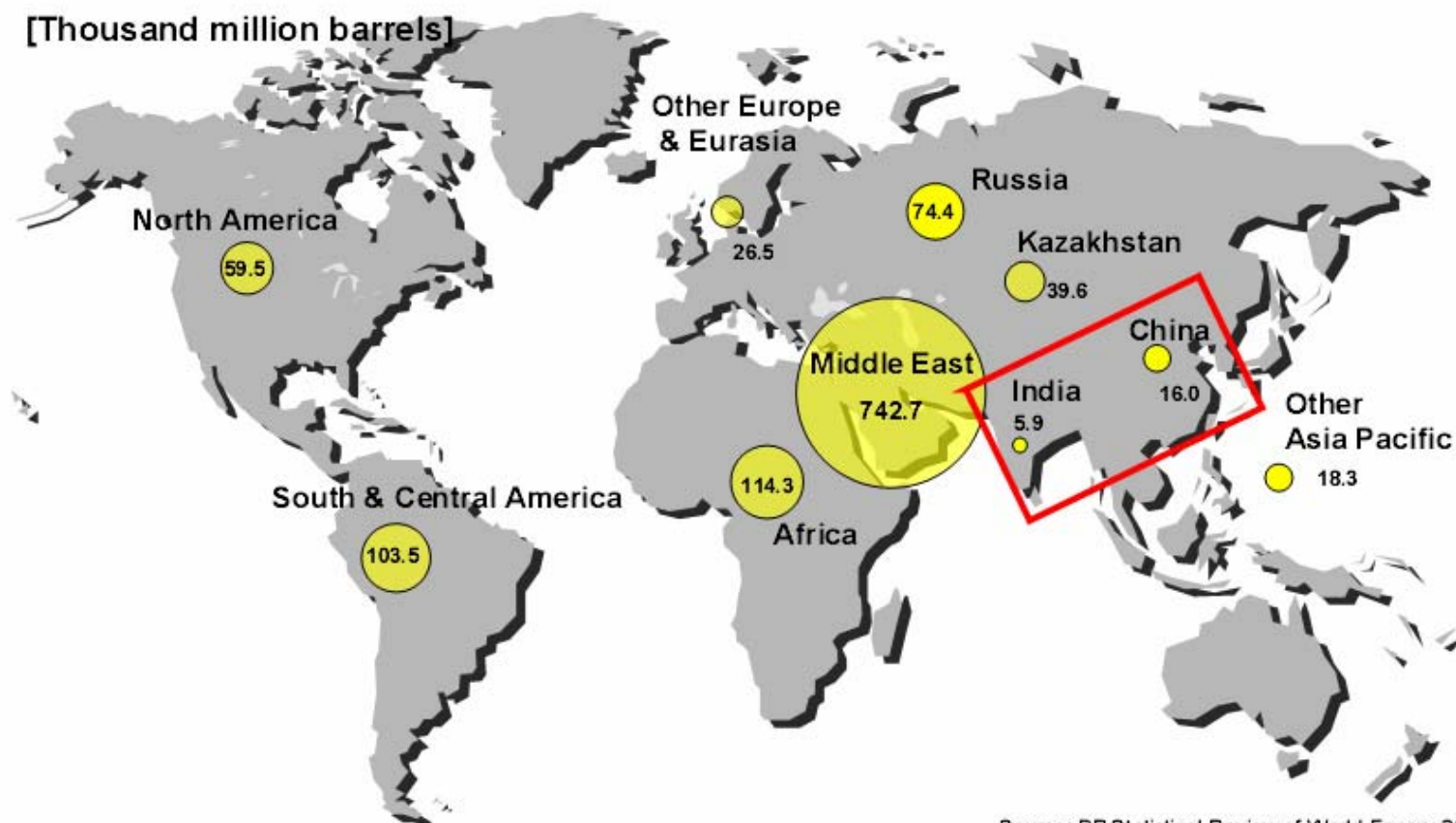
- World economic environment
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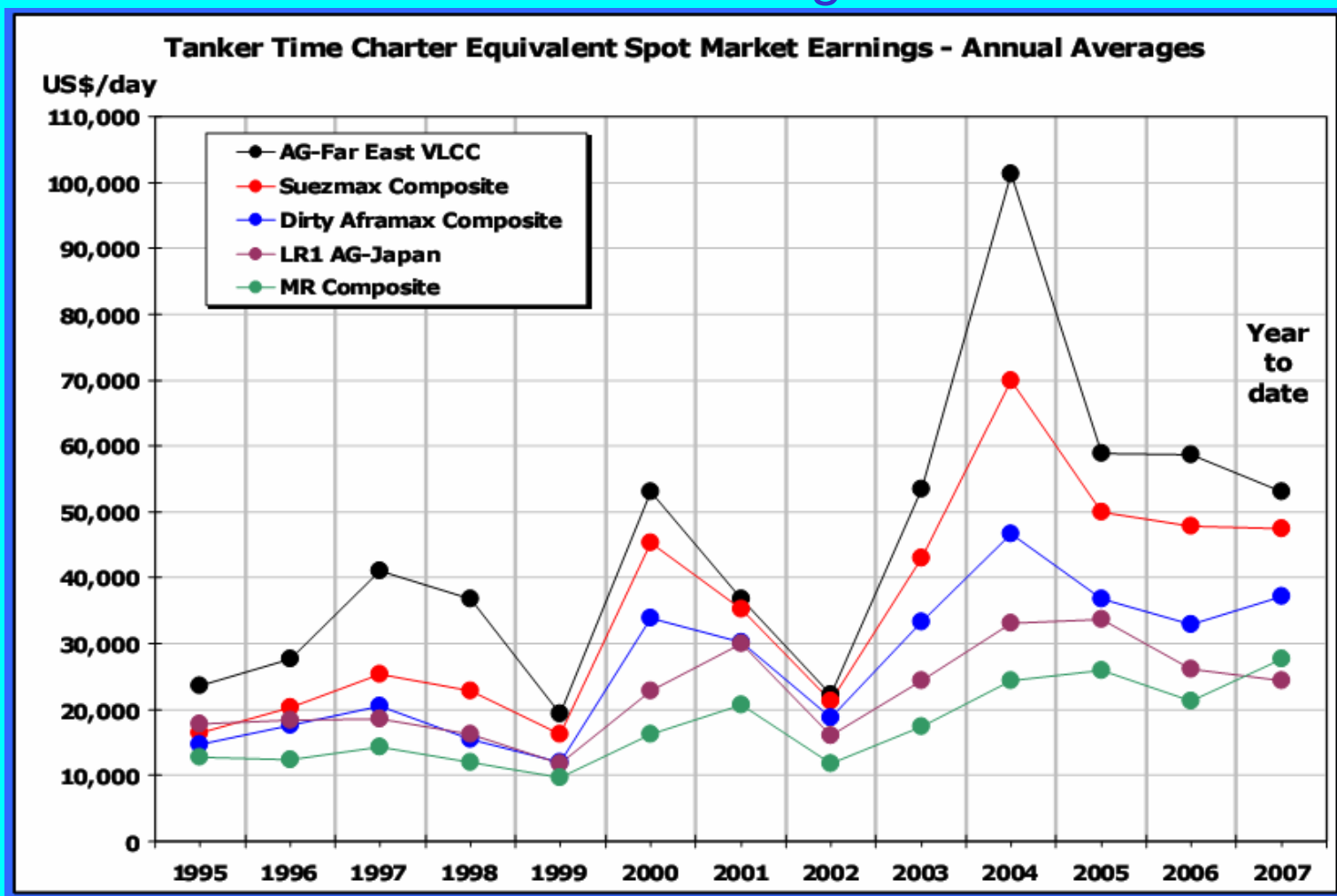
## Tanker market – How oil is distributed

### Oil: proved reserves (2005)

[Thousand million barrels]

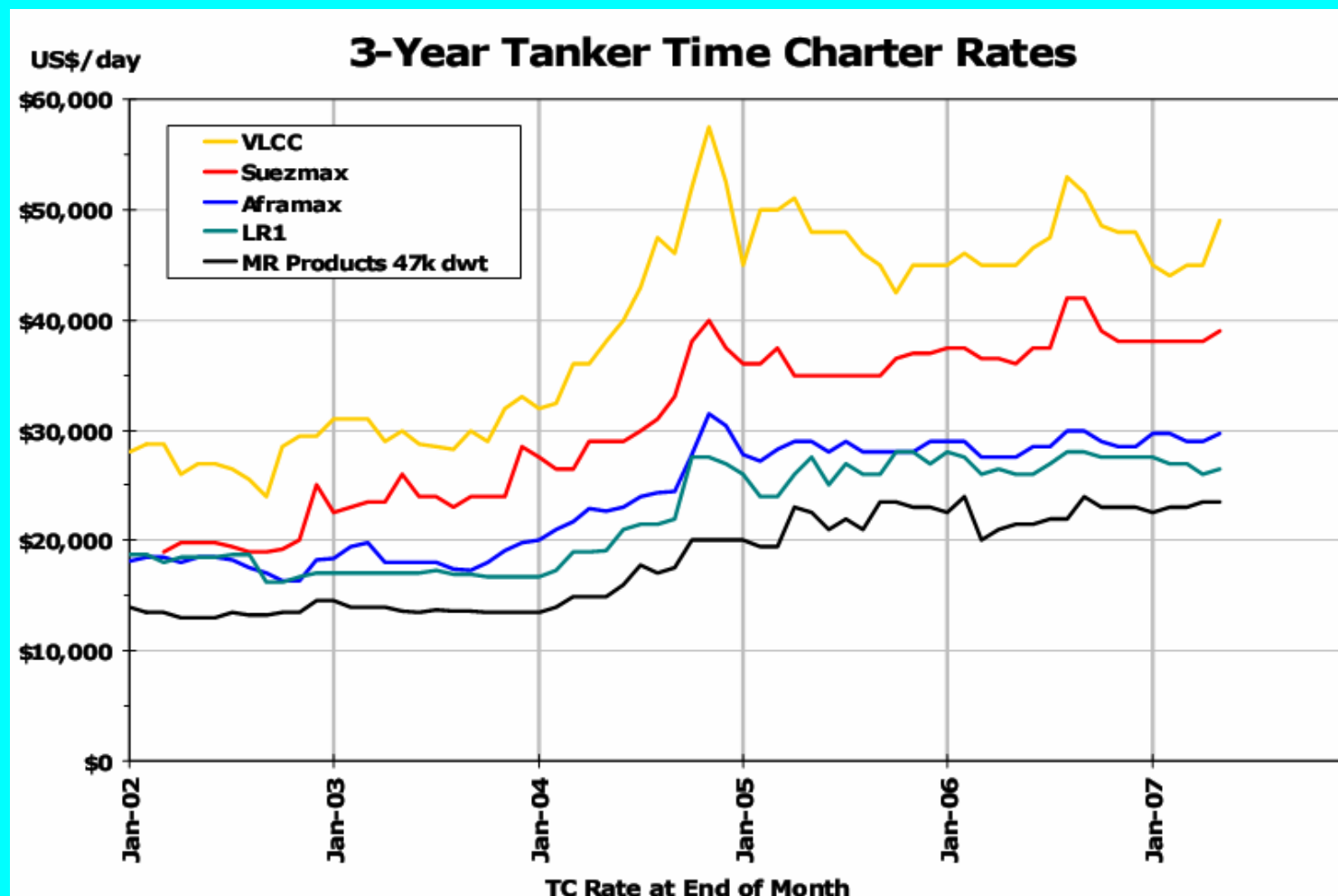


## Tanker market – Evolution during last decade



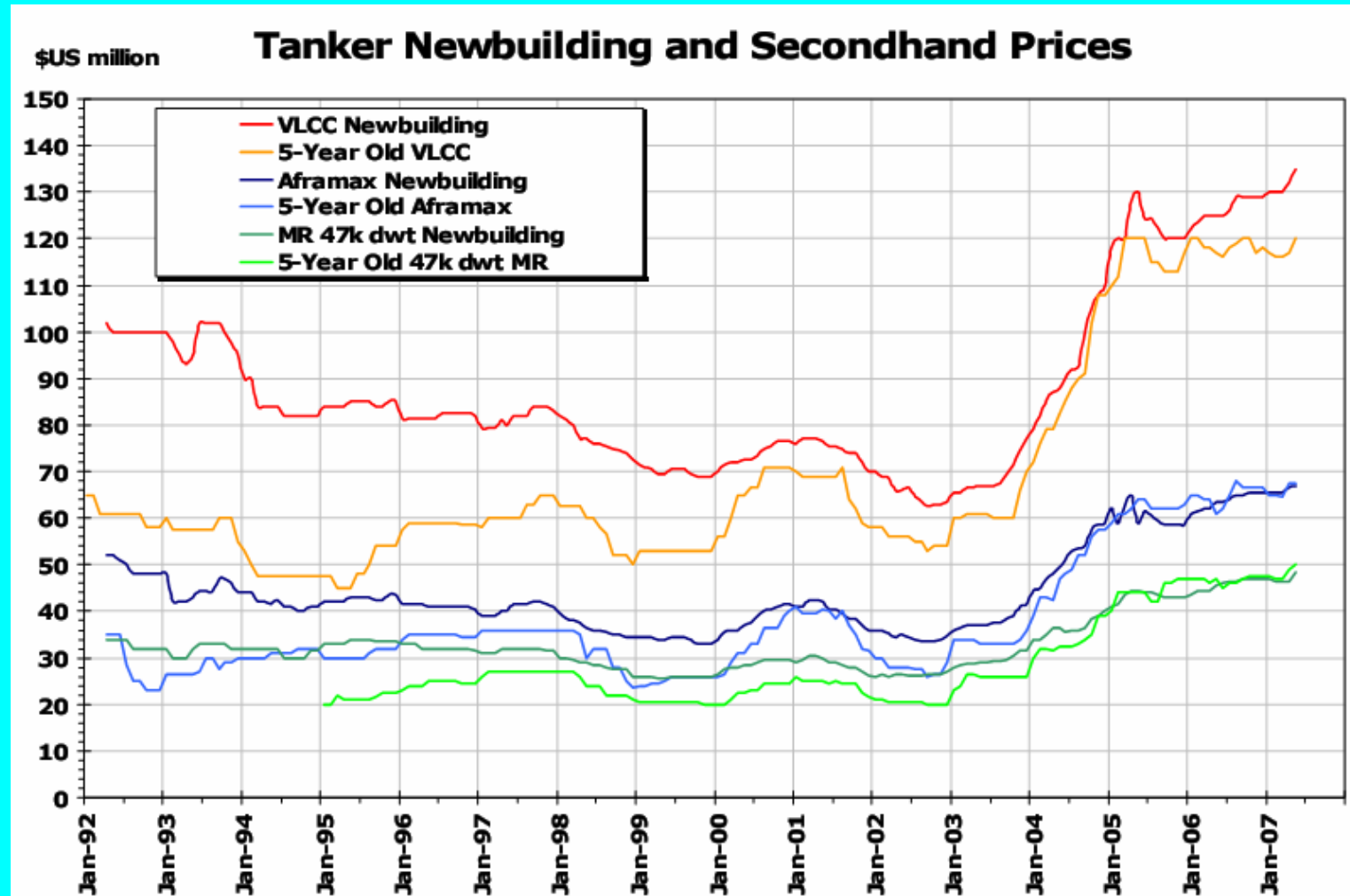
(Source: Galbraiths)

## Time charter employment



(Source: Galbraiths)

# Ναυτιλιακή Χρηματοοικονομική



(Source: Galbraiths)

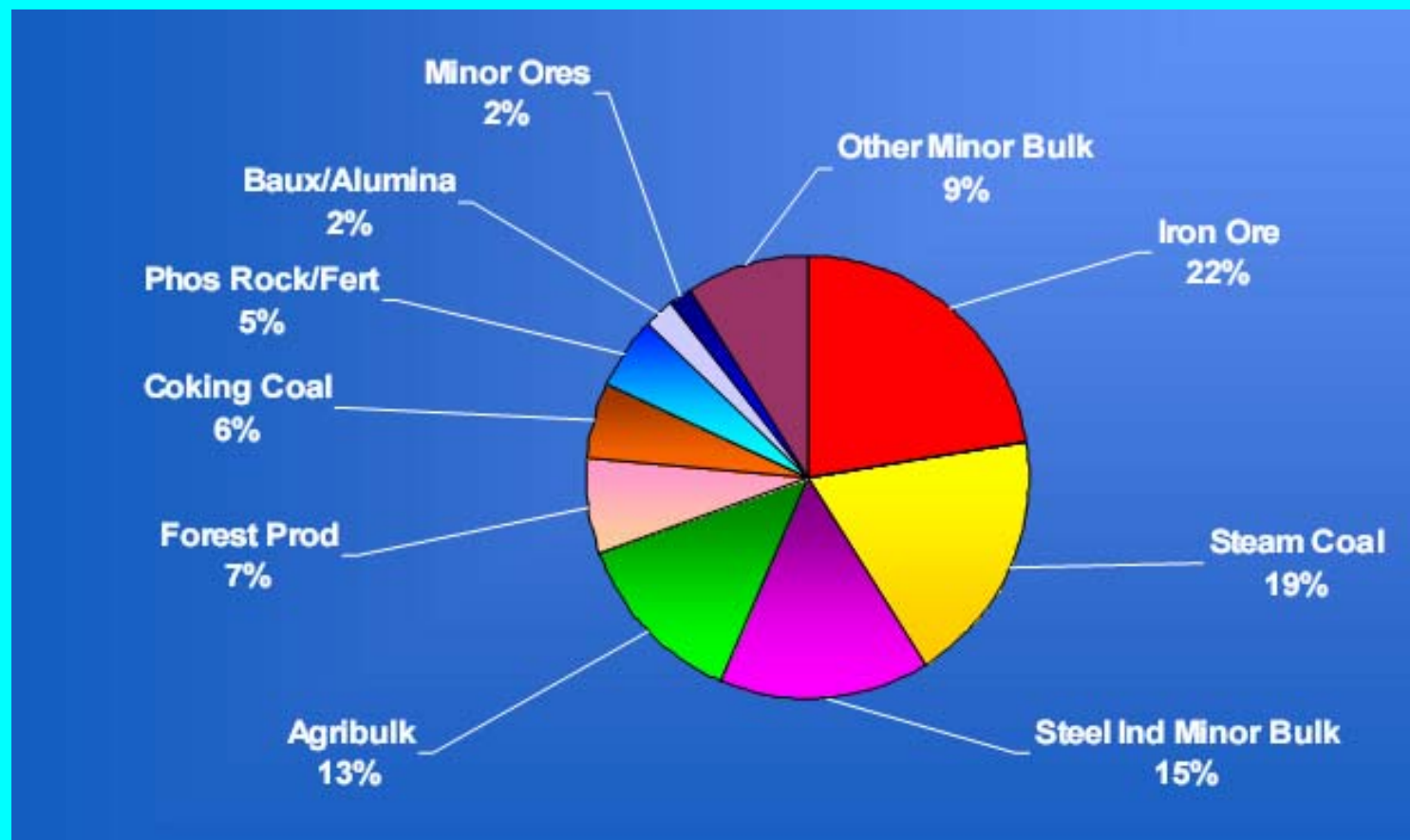
## Tanker market

- Παράγοντες που αναμένεται να επηρεάσουν την ναυλαγορά μεταξύ άλλων
  - Σημαντική αύξηση του στόλου των δεξαμενόπλοιων την τριετία 2007-2009
  - Η προγραμματισμένη απόσυρση των δεξαμενόπλοιων μονού τοιχώματος το 2010
  - Τα μέτρα για τον περιορισμό των κλιματικών αλλαγών που ενδέχεται να ληφθούν

## Market Outlook

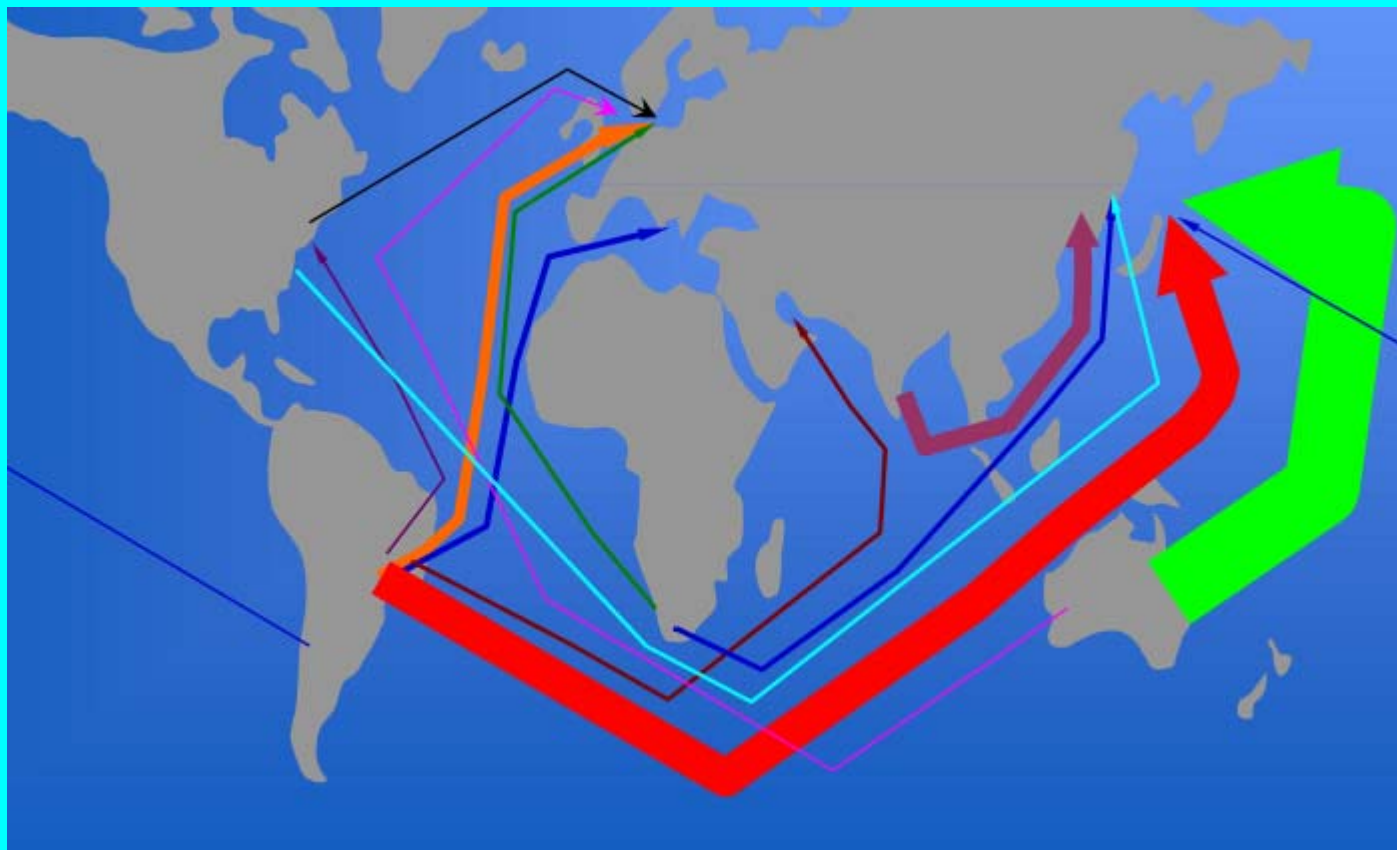
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## Dry bulk trade in 2006



Source: Braemer - Seascope

## Iron ore trading patterns in 2006



Source: Braemer - Seascope

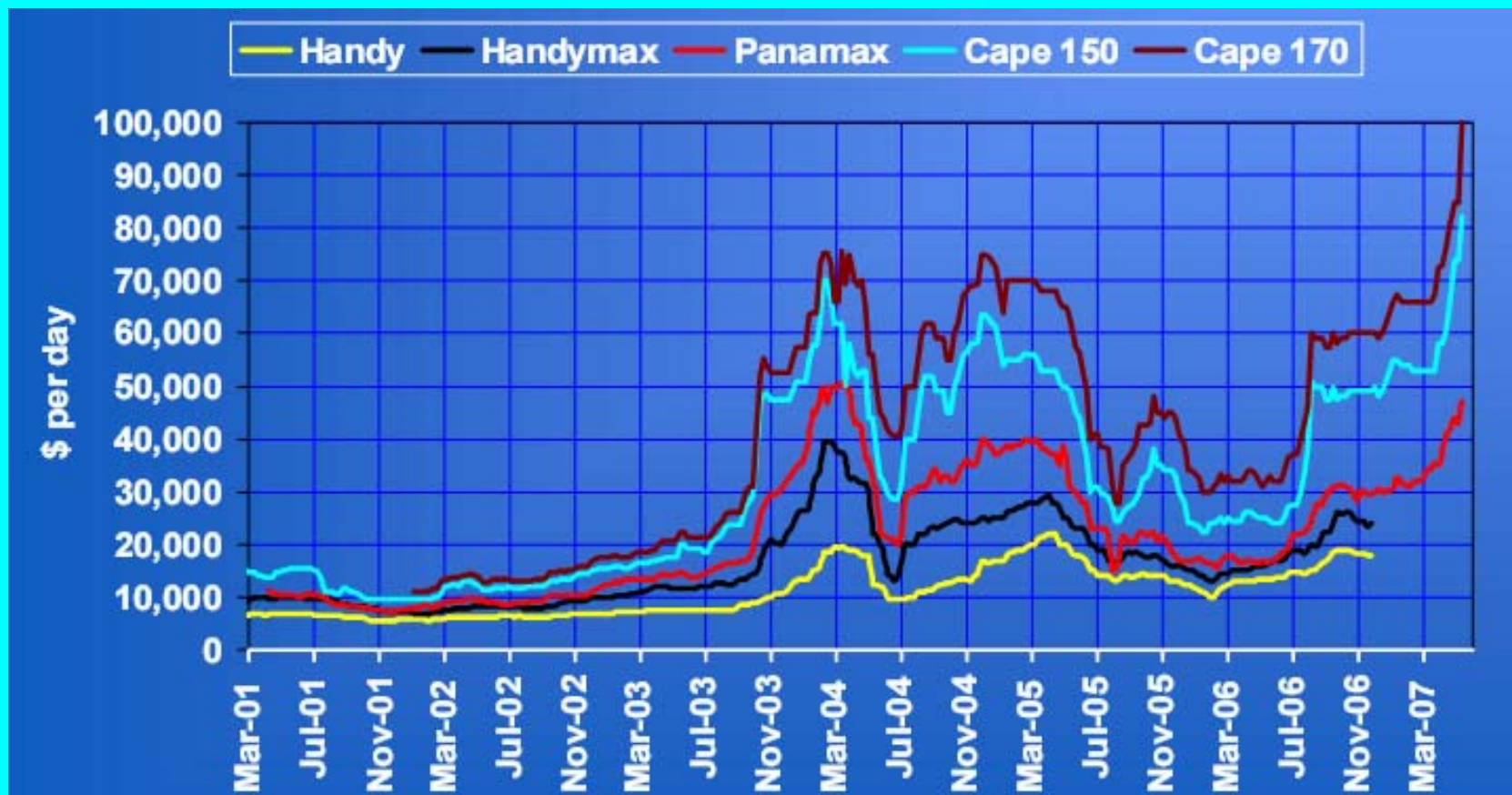


## Dry bulk spot rates



Source: Braemer - Seascope

## Dry bulk 1-year timecharter rate



Source: Braemer - Seascope

## Capesize newbuilding vs second hand vs 1 yr Tc



Source: Braemer - Seascope

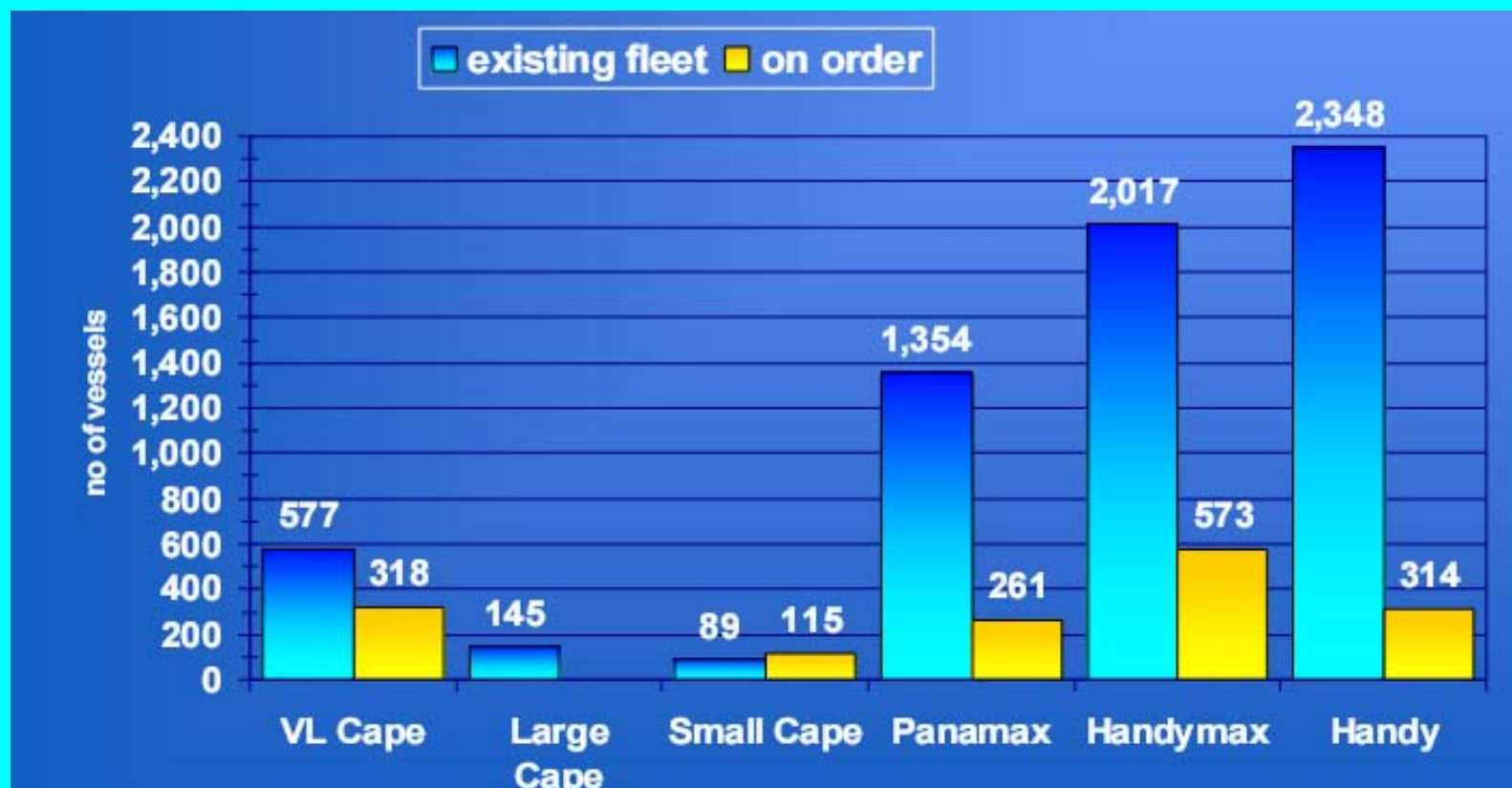


## Panamax newbuilding vs second hand vs 1 yr Tc



Source: Braemer - Seascope

## Dry bulk existing fleet and orderbook



Source: Braemer - Seascope

Dry bulk market projections based on heavy orderbook

- **2007 6% undersupply**
- **2008 2.5-3% undersupply**
- **2009 0.5-1% undersupply**
- **2010 5-7% oversupply !**

Source: Braemer - Seascope

## Μορφές Ναυτιλιακής Χρηματοδότησης

- Equity
  - Private Placements
  - Public (Capital Markets)
- Mezzanine Finance
- Debt
  - Τραπεζική Χρηματοδότηση
  - Capital Markets
- Leasing

## Private Equity Funding

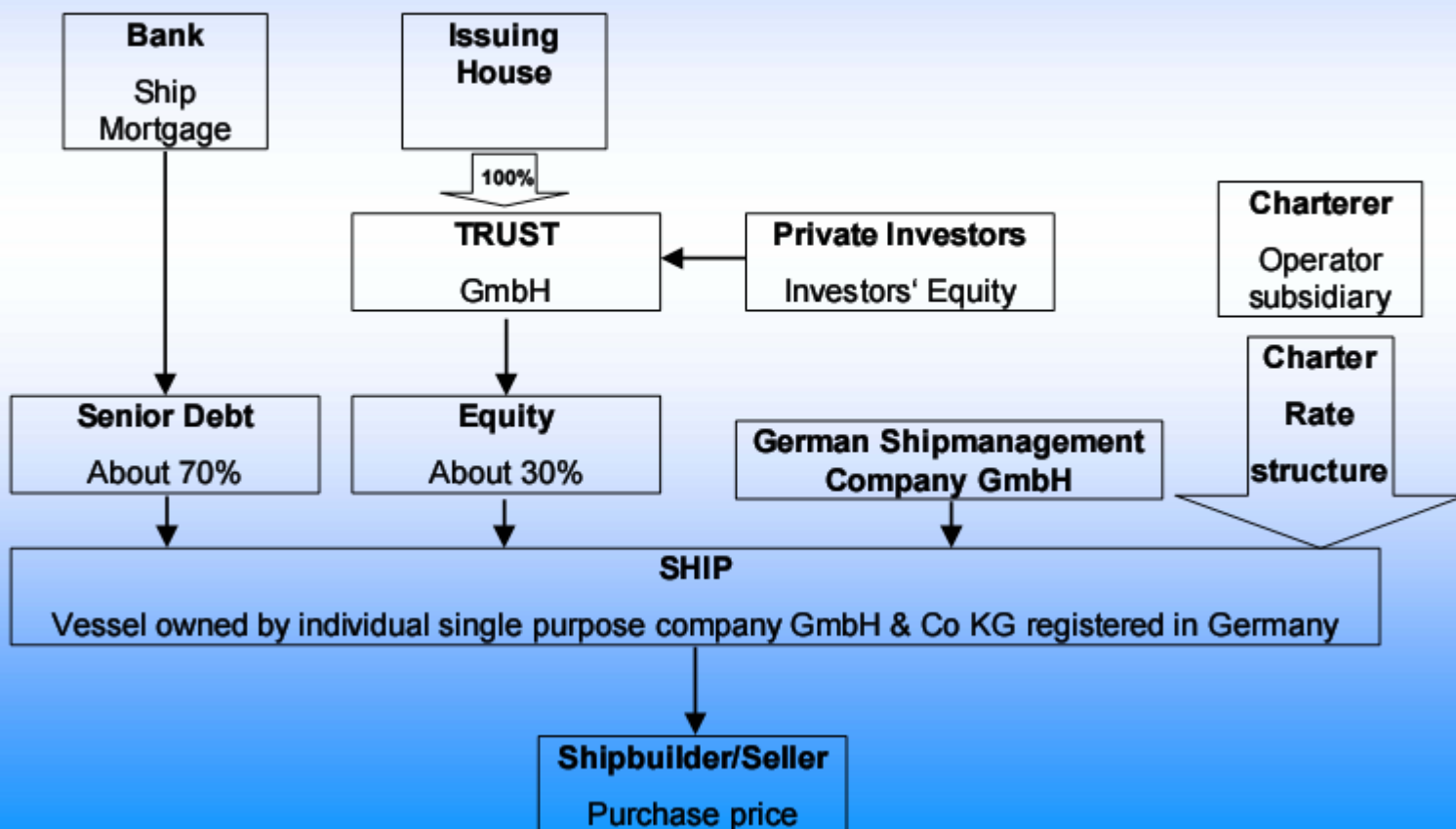
Type of players:

1. Dedicated (KGs, KSs, privated equity shipping funds)
2. Opportunistic (Investment Banks, Hedge funds)
3. Islamic (Middle East Institutional and Private investors)

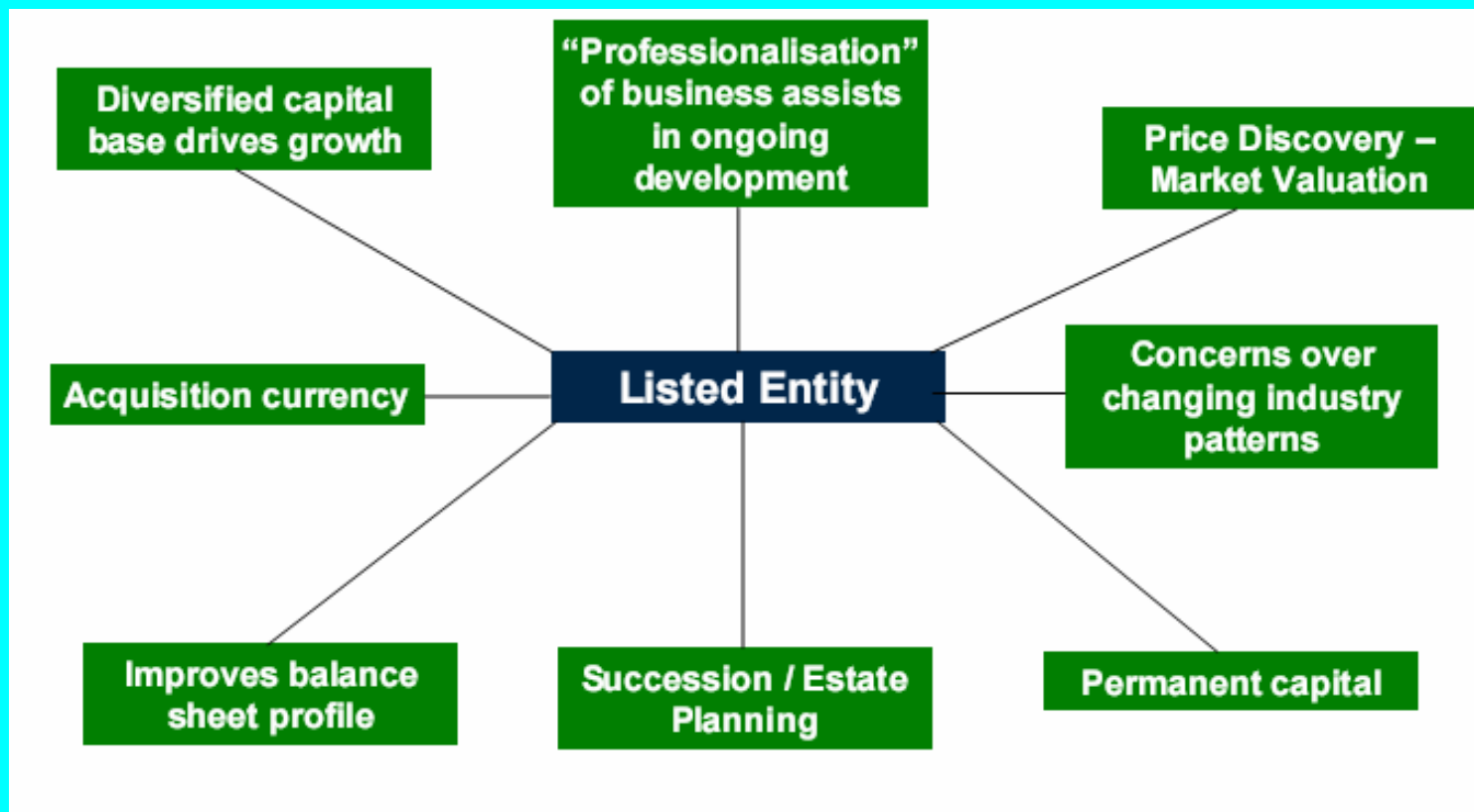


## Private Equity Funding (2)

### Typical KG fund ship Finance Structure Source: CASS Business School

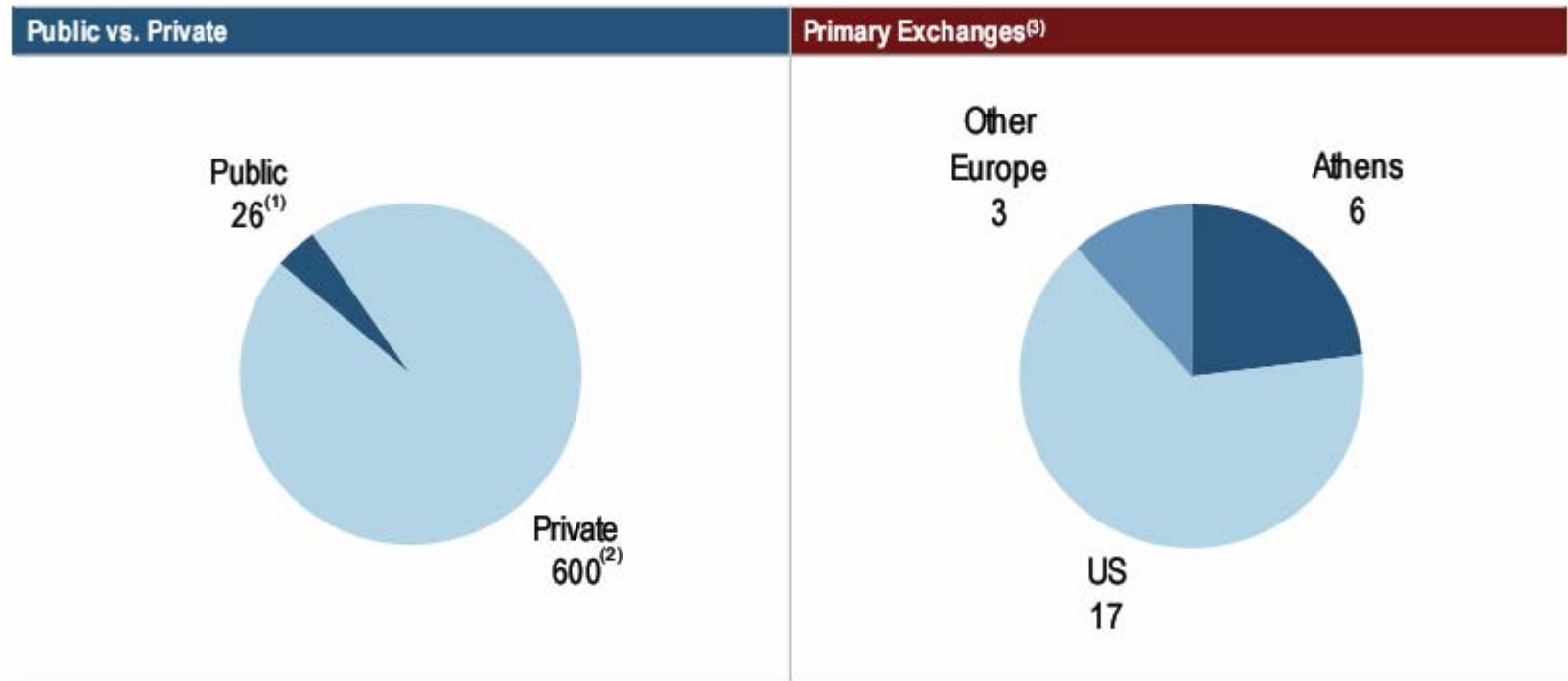


## Equity-Capital Markets



Source: Jefferies

## Greek shipping equity funding



Source: Jefferies

(1) Includes Greek owned companies domiciled in other countries.  
 (2) Source: World Shipping Directory – approximate number (www.ship.gr)  
 (3) Classified by Primary Exchanges only.

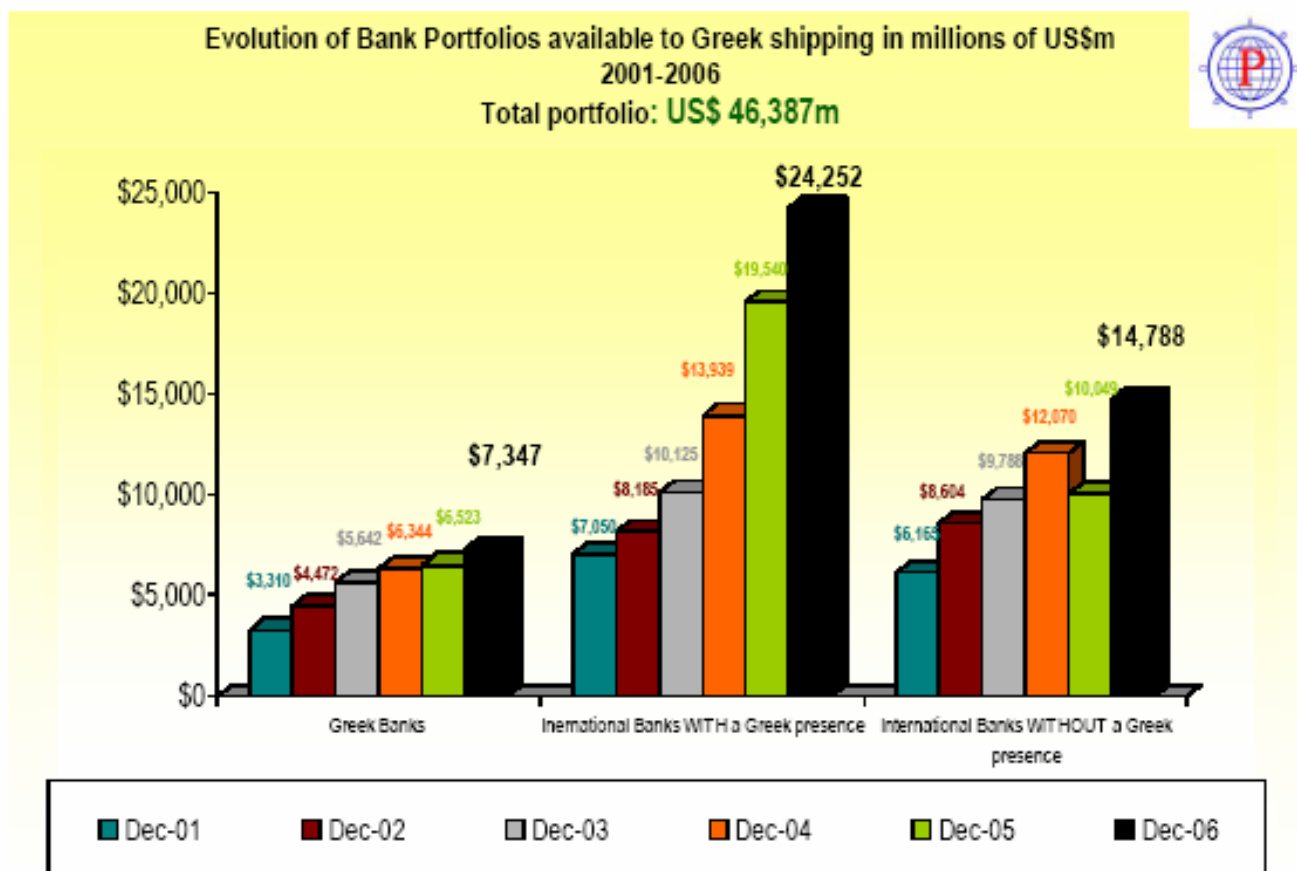
## Comparison of Shipping IPO Structures

|                              | Non Yield-Oriented                                                                                                                                                                      | Yield-Oriented                                                                                                                                                                                                                                        |                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                    |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | Growth                                                                                                                                                                                  | Full Payout                                                                                                                                                                                                                                           | Partial Payout                                                                                                                                                                                                      | MLPs / Business Trust                                                                                                                                                                                                                                                                              |
| <b>Dividends</b>             | <ul style="list-style-type: none"> <li>Can be paid when excess cash is available</li> <li>Board has full discretion</li> </ul>                                                          | <ul style="list-style-type: none"> <li>All cash is dividended out</li> </ul>                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Dividends paid after reserves</li> <li>Valuation will suffer if dividend missed</li> </ul>                                                                                   | <ul style="list-style-type: none"> <li>Subordinated shares receive dividends only after the common shares have received their full dividend payment</li> <li>Incentive shares can be created for additional distributions to the Company</li> </ul>                                                |
| <b>Growth Considerations</b> | <ul style="list-style-type: none"> <li>Management has flexibility to control cash flow and grow</li> <li>Investment in future growth drives financing and dividend decisions</li> </ul> | <ul style="list-style-type: none"> <li>Fleet depletes</li> <li>Growth based solely on future equity and debt offerings</li> </ul>                                                                                                                     | <ul style="list-style-type: none"> <li>Growth key to story</li> <li>Financing growth a key challenge</li> <li>Dividend policy can have implications for growth</li> </ul>                                           | <ul style="list-style-type: none"> <li>Can be managed as full or partial payout company</li> </ul>                                                                                                                                                                                                 |
| <b>Valuation</b>             | <ul style="list-style-type: none"> <li>Multiples generally lower than yield structures</li> </ul>                                                                                       | <ul style="list-style-type: none"> <li>Trades at a higher yield</li> <li>Multiples generally high</li> <li>Asset value multiples generally high</li> <li>High volatility</li> <li>Significant contract coverage generates higher valuation</li> </ul> | <ul style="list-style-type: none"> <li>Multiples generally high</li> <li>Yield is key driver</li> <li>Market wants certainty around dividends</li> <li>Dividend stability can result in higher valuation</li> </ul> | <ul style="list-style-type: none"> <li>Typically generates highest valuation</li> <li>Yield is key driver</li> <li>Market wants certainty around dividends</li> <li>This structure reduces dividend volatility for common shareholders and thus should provide for a superior valuation</li> </ul> |
| <b>Cash Flow Management</b>  | <ul style="list-style-type: none"> <li>Companies have full flexibility to make decisions</li> </ul>                                                                                     | <ul style="list-style-type: none"> <li>Managing cash is difficult</li> </ul>                                                                                                                                                                          | <ul style="list-style-type: none"> <li>Reserve allows cash buffer and growth</li> </ul>                                                                                                                             | <ul style="list-style-type: none"> <li>Potential reserve allows cash buffer and growth</li> </ul>                                                                                                                                                                                                  |

Source: Jefferies

## Τραπεζική Ναυτιλιακή Χρηματοδότηση

## Τραπεζικά χαρτοφυλάκια στην ελληνόκτητη ναυτιλία



## Τραπεζικά Χαρτοφυλάκια στην Ελληνική Ναυτιλία (2)

| <br>Petrofin Bank Research ©<br>April 2007 | Overall<br>Greek<br>shiplending<br>portfolio<br>in US\$m as<br>of 31 <sup>st</sup><br>December<br>2006 | Percentage<br>of growth<br>between<br>December<br>2001 and<br>December<br>2006 | Average<br>yearly<br>growth<br>since 2001 | Percentage<br>of growth<br>between<br>December<br>2005 and<br>December<br>2006 |
|-----------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-------------------------------------------|--------------------------------------------------------------------------------|
| International<br>Banks WITH a<br>Greek presence                                                                             | \$24,252                                                                                               | 244.00%                                                                        | 28.03%                                    | 24.11%                                                                         |
| International<br>Banks without a<br>Greek presence                                                                          | \$14,788                                                                                               | 140%                                                                           | 19.12%                                    | 47.15%                                                                         |
| Greek banks                                                                                                                 | \$7,347                                                                                                | 122%                                                                           | 17.29%                                    | 12.63%                                                                         |
| Totals<br>(rounded)                                                                                                         | \$46,387                                                                                               | 180.71%                                                                        | 22.93%                                    | 28.45%                                                                         |

Τράπεζες που ασχολούνται με την ναυτιλιακή χρηματοδότηση

- Εμπορικές Τράπεζες (Commercial Banks)
- Τράπεζες Επενδύσεων (Investment Banks)
- Τράπεζες Αναπτύξεως - Export Import Banks



Λόγοι για τους οποίους οι Τράπεζες στρέφονται στην ναυτιλιακή χρηματοδότηση

- Κερδοφορία
- Διασπορά κινδύνου
- Επέκταση
- Ανάπτυξη cross selling

## Πιστωτική Πολιτική (Credit Policy)

- Μέγεθος Χαρτοφυλακίου
- Τύποι πλοίων
- Ηλικίες πλοίων / Νεόδμητα / Μεταχειρισμένα
- Πελατολόγιο
- Τύποι χρηματοδοτήσεων

## Τραπεζικοί κίνδυνοι στην Ναυτιλιακή Χρηματοδότηση

- Πιστωτικός Κίνδυνος
- Κίνδυνος Επιτοκίου
- Συναλλαγματικός Κίνδυνος

## Τιμολόγηση του Δανείου

- Κόστος κεφαλαίων (LIBOR)
- Περιθώριο επιτοκίου (Spread)
- Προμήθειες

Το περιθώριο επιτοκίου (spread) καλύπτει

- Τα πάγια έξοδα
- Τα δεσμευμένα εποπτικά κεφάλαια
- Τον πιστωτικό κίνδυνο που αναλαμβάνεται

### Τύποι Ναυτιλιακών χρηματοδοτήσεων

- Δάνεια ορισμένης διάρκειας (Term Loans)
- Αλληλόχρεος λογαριασμός (overdraft)
- Bridge Loan
- Revolving Credit
- Guarantees
- Letter of Credit

## Αποπληρωμή Δανείου Ορισμένης Διάρκειας

- Σταθερές δόσεις
- Περίοδος Χάριτος
- Πληρωμή Balloon
- Πληρωμή Bullet
- Back End / Front End

## Κοινοπρακτικά Δάνεια

- Σκοπός
- Διοργάνωση
- Διανομή
- Διαχείριση



## Ανάλυση Πιστοδότησης

- Οικονομική Ανάλυση
  - Οικονομικά στοιχεία
  - Ανάλυση Χρηματοροής
- Ιστορικό πελάτη
- Πρόβλεψη αγοράς



# Ναυτιλιακή Χρηματοοικονομική

## Ανάλυση Χρηματοροής

| CASH FLOW PROJECTIONS           |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
|---------------------------------|--------------|------------|-------------------|----------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| ASSUMPTIONS                     |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| ESCALATION OF OPEX              | 2%           |            |                   | Term Loan (75% | \$16.875.000 |            |            |            |            |            |            |            |            |            |            |
| Contract Price                  | \$22.000.000 | Payments   | 10%, 10%, 5%, 75% | Tenor          | 10           |            |            |            |            |            |            |            |            |            |            |
| Additions                       | \$500.000    |            |                   | Balloon        | \$6.955.000  |            |            |            |            |            |            |            |            |            |            |
|                                 |              |            |                   | VESSEL VALUE   | \$10.000.000 |            |            |            |            |            |            |            |            |            |            |
| M/V ULTRA HANDYMAX              |              | Map-01     | Ιουλ-02           | Σεπ-02         | Map-03       | Map-04     | Map-05     | Map-06     | Map-07     | Map-08     | Map-09     | Map-10     | Map-11     | Map-12     | Map-13     |
| Income per day                  |              |            |                   |                |              | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     |
| Operating days                  |              |            |                   |                |              | 355        | 355        | 355        | 355        | 355        | 355        | 355        | 355        | 355        | 355        |
| Total Income                    |              |            |                   |                |              | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  |
| Opex per day                    |              |            |                   |                |              | 4.000      | 4.080      | 4.162      | 4.245      | 4.330      | 4.416      | 4.505      | 4.595      | 4.687      | 4.780      |
| Operating days                  |              |            |                   |                |              | 365        | 365        | 365        | 365        | 365        | 365        | 365        | 365        | 365        | 365        |
| Total Running Expenses          |              |            |                   |                |              | -1.460.000 | -1.489.200 | -1.518.984 | -1.549.364 | -1.580.351 | -1.611.958 | -1.644.197 | -1.677.081 | -1.710.623 | -1.744.835 |
| Operating Cash Flow             |              |            |                   |                |              | 2.445.000  | 2.415.800  | 2.386.016  | 2.355.636  | 2.324.649  | 2.293.042  | 2.260.803  | 2.227.919  | 2.194.377  | 2.160.165  |
| TERM LOAN ULTRA HANDYMAX        |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| Interest Expenses               | 5,000%       |            | -85.605           | -21.797        | -79.541      | -818.950   | -769.350   | -719.750   | -670.150   | -620.550   | -570.950   | -521.350   | -471.750   | -422.150   | -372.550   |
| Principal Payments              |              |            |                   |                |              | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   |
| Prepayment / Balloon            |              |            |                   |                |              |            |            |            |            |            |            |            |            |            | -6.955.000 |
| Loan O/S                        | 0            | 1.265.625  | 2.531.250         | 3.164.063      | 16.875.000   | 15.883.000 | 14.891.000 | 13.899.000 | 12.907.000 | 11.915.000 | 10.923.000 | 9.931.000  | 8.939.000  | 7.947.000  | 0          |
| CONSOLIDATED CASHFLOW           |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| Operating Income                |              | Map-01     | Ιουλ-02           | Σεπ-02         | Map-03       | Map-04     | Map-05     | Map-06     | Map-07     | Map-08     | Map-09     | Map-10     | Map-11     | Map-12     | Map-13     |
| Running Expenses                |              |            |                   |                |              | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  | 3.905.000  |
| OPERATING CASH FLOW             |              |            |                   |                |              | -1.460.000 | -1.489.200 | -1.518.984 | -1.549.364 | -1.580.351 | -1.611.958 | -1.644.197 | -1.677.081 | -1.710.623 | -1.744.835 |
| Interest                        |              |            | -85.605           | -21.797        | -79.541      | -818.950   | -769.350   | -719.750   | -670.150   | -620.550   | -570.950   | -521.350   | -471.750   | -422.150   | -372.550   |
| Principal Repayment             |              | 0          | 0                 | 0              | 0            | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   | -992.000   |
| SS&DD                           |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| FREE CASH FLOW                  |              | 0          | -85.605           | -21.797        | -79.541      | 634.050    | 654.450    | 674.266    | 693.486    | 712.099    | 730.092    | 747.453    | 764.169    | 780.227    | 795.615    |
| Equity Contribution             |              | 550.000    | 550.000           | 275.000        | 4.250.000    |            |            |            |            |            |            |            |            |            |            |
| Term Loan                       |              | 1.650.000  | 1.650.000         | 825.000        | 12.750.000   |            |            |            |            |            |            |            |            |            |            |
| Downpayments for ULTRA HANDYMAX |              | -2.200.000 | -2.200.000        | -1.100.000     | -17.000.000  |            |            |            |            |            |            |            |            |            |            |
| Arrangement fee                 |              | -42.188    |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| Commitment fee                  | 0,25%        |            | -52.790           | -6.176         | -17.234      |            |            |            |            |            |            |            |            |            |            |
| Supervision costs               |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| Sale of Vessel                  |              |            |                   |                |              |            |            |            |            |            |            |            |            |            | 10.000.000 |
| Balloon                         |              |            |                   |                |              |            |            |            |            |            |            |            |            |            | -6.955.000 |
| NET CASH FLOW                   |              | -42.188    | -138.396          | -27.973        | -96.775      | 634.050    | 654.450    | 674.266    | 693.486    | 712.099    | 730.092    | 747.453    | 764.169    | 780.227    | 3.840.615  |
| CUMULATIVE CASH FLOW            | 0            | -42.188    | -180.583          | -208.556       | -305.331     | 328.719    | 983.169    | 1.657.435  | 2.350.922  | 3.063.021  | 3.793.113  | 4.540.566  | 5.304.735  | 6.084.962  | 9.925.577  |
| BREAK EVEN RATE                 |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
|                                 |              |            |                   |                |              | 9.346      | 9.287      | 9.231      | 9.176      | 9.123      | 9.071      | 9.022      | 8.974      | 8.928      | 8.884      |
| ESTIMATED RATE                  |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
|                                 |              |            |                   |                |              | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     | 11.000     |
| IRR CALCULATIONS                |              |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
| IRR on Equity                   | 8,21%        |            |                   |                |              |            |            |            |            |            |            |            |            |            |            |
|                                 | Map-01       | Ιουλ-02    | Σεπ-02            | Map-03         | Map-04       | Map-05     | Map-06     | Map-07     | Map-08     | Map-09     | Map-10     | Map-11     | Map-12     | Map-13     |            |
|                                 | -592.188     | -688.396   | -302.973          | -4.346.775     | 634.050      | 654.450    | 674.266    | 693.486    | 712.099    | 730.092    | 747.453    | 764.169    | 780.227    | 3.840.615  |            |

## Μορφές Εξασφαλίσεων Τραπεζικού Δανεισμού

- Υποθήκη επί πλοίου
- Προσωπικές/Εταιρικές Εγγυήσεις
- Εκχώρηση εσόδων/ασφαλειών
- Ενέχυρο επί μετοχών
- Letter of Comfort
- MII/MAP

## Ναυτιλιακή Χρηματοδότηση

**Αθήνα, 7/6/2007**

**Κωνσταντίνος Δημητρίου**

**Account manager, NBG**