

LLOYD'S SHIPPING ECONOMIST

Greek Ship Finance Conference

ATHENS

24th – 25th May 2007

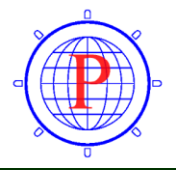
**Does the Growth of the Chinese fleet
Represent a Threat or an Opportunity
to Greek Shipping**

presented by

Ted Petropoulos

MD

PETROFIN S.A.



Presentation structure

1. Development of the Greek Fleet in terms of DWT, no of vessels, age and type
2. Development of the Chinese fleet in terms of DWT, no of vessels, age and type
3. Comparisons between the development of the Chinese and Greek fleets.
4. Factors underlying the growth and / or limitations to the development of the Greek and Chinese fleets.
5. Is the development of the Chinese and Greek fleets mutually exclusive?
6. Expectations and prospects for the next decade.

Development of the Greek fleet

- The Greek-controlled fleet represents 8.5% of the World fleet in terms of numbers of vessels and 16.5% of the World fleet in terms of DWT.
- The Greek fleet is concentrated primarily in Dry bulkers, Tankers and Container vessels
- In the Dry Bulk sector, 22% of the world fleet is in Greek hands. The corresponding figures for Tankers is 21% and for Container vessels is 6% (all in DWT terms).



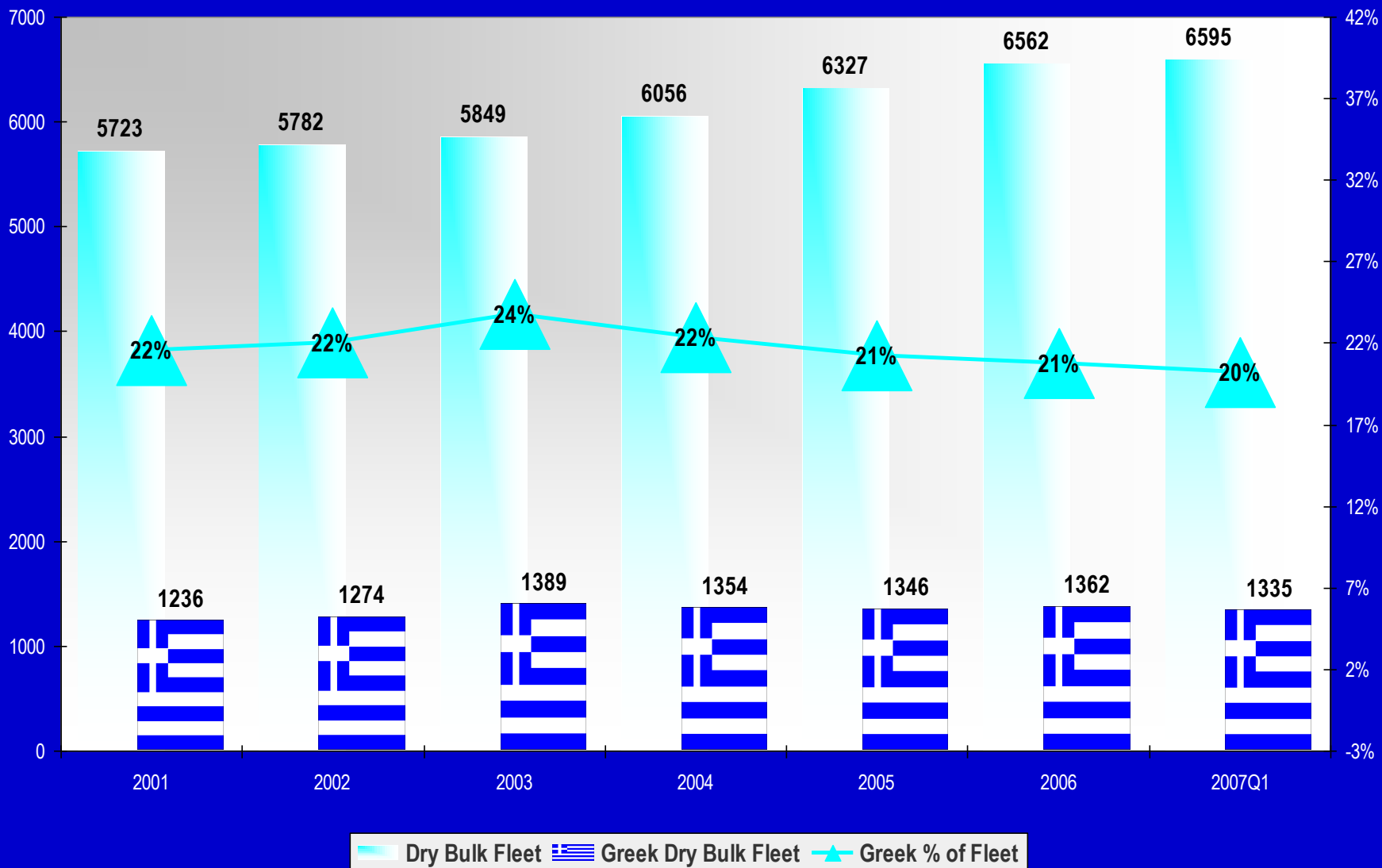
Development of the Greek fleet

- In terms of number of vessels, we note that there was a surge in the Greek fleet expansion ahead the boom of 2003.
- A comparative lull has happened since. This is primarily due to selling smaller units and replacing them with fewer but larger and more modern ones.
- Also, the trend towards ordering newbuildings has picked up. These have started entering the fleet in the past couple of years.



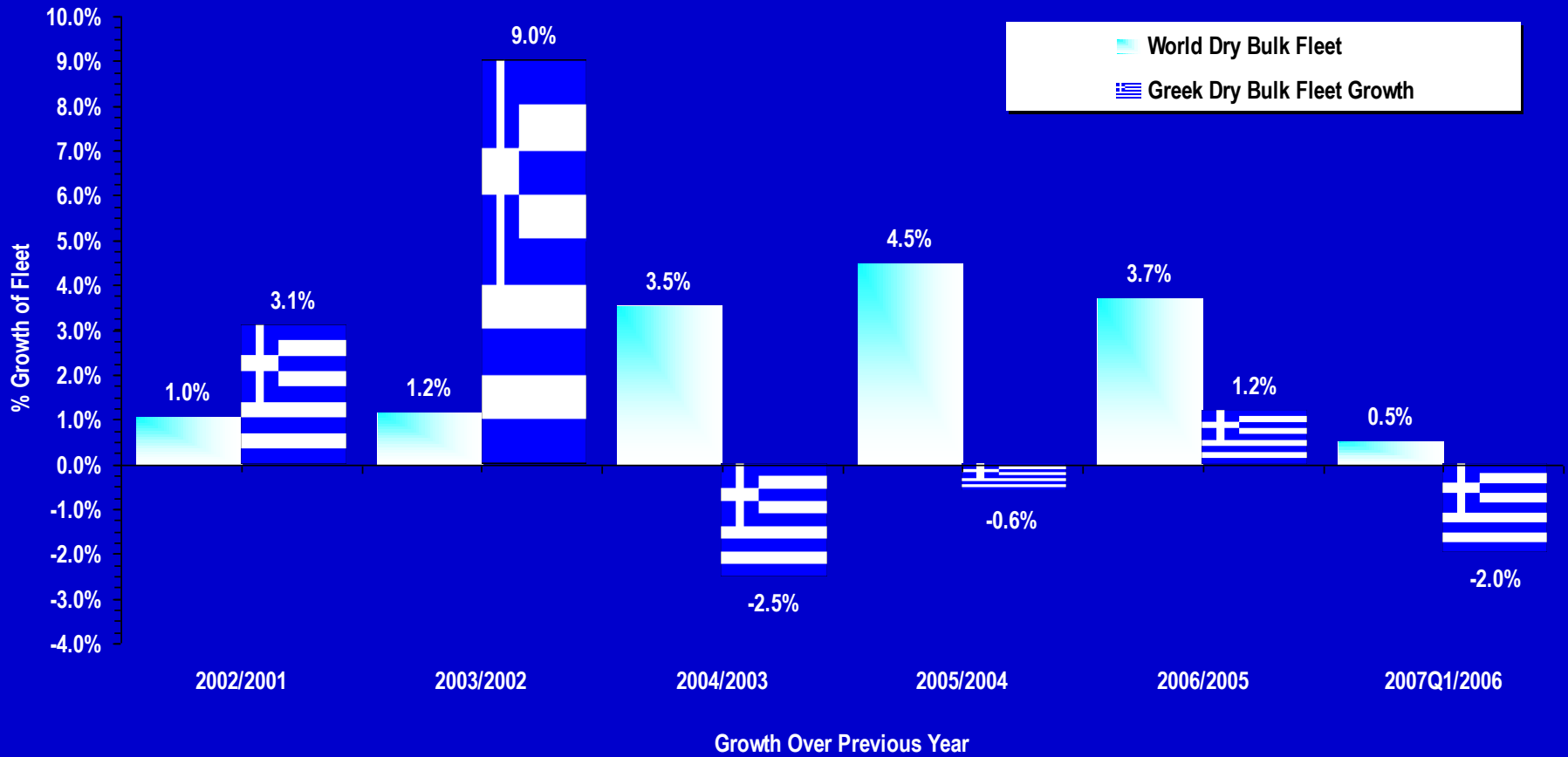


World Dry Bulk Fleet vs Greek Fleet (number of vessels)





Growth of World Dry Bulk Fleet vs Greek Fleet in number of vessels



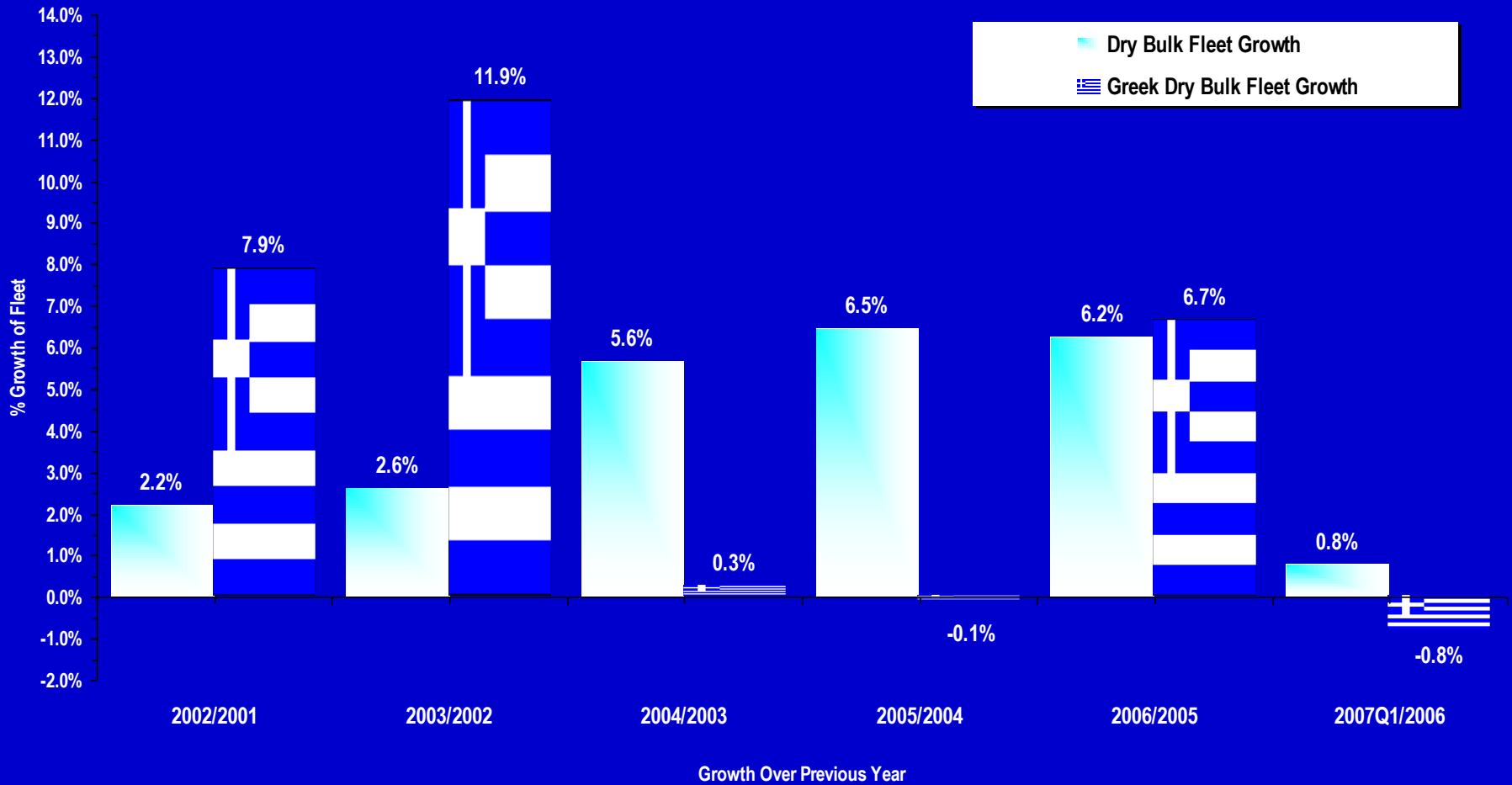


Greek Fleet

- In terms of DWT, the situation is a little different.
- 2000 – 2002 saw the fast growth of the Greek fleet ahead of the growth of the world fleet.
- 2005 and 2006 was a year when large, new units and IPO fleets entered the Greek fleet.



Growth of Dry Bulk Fleet vs Greek Fleet in DWT terms



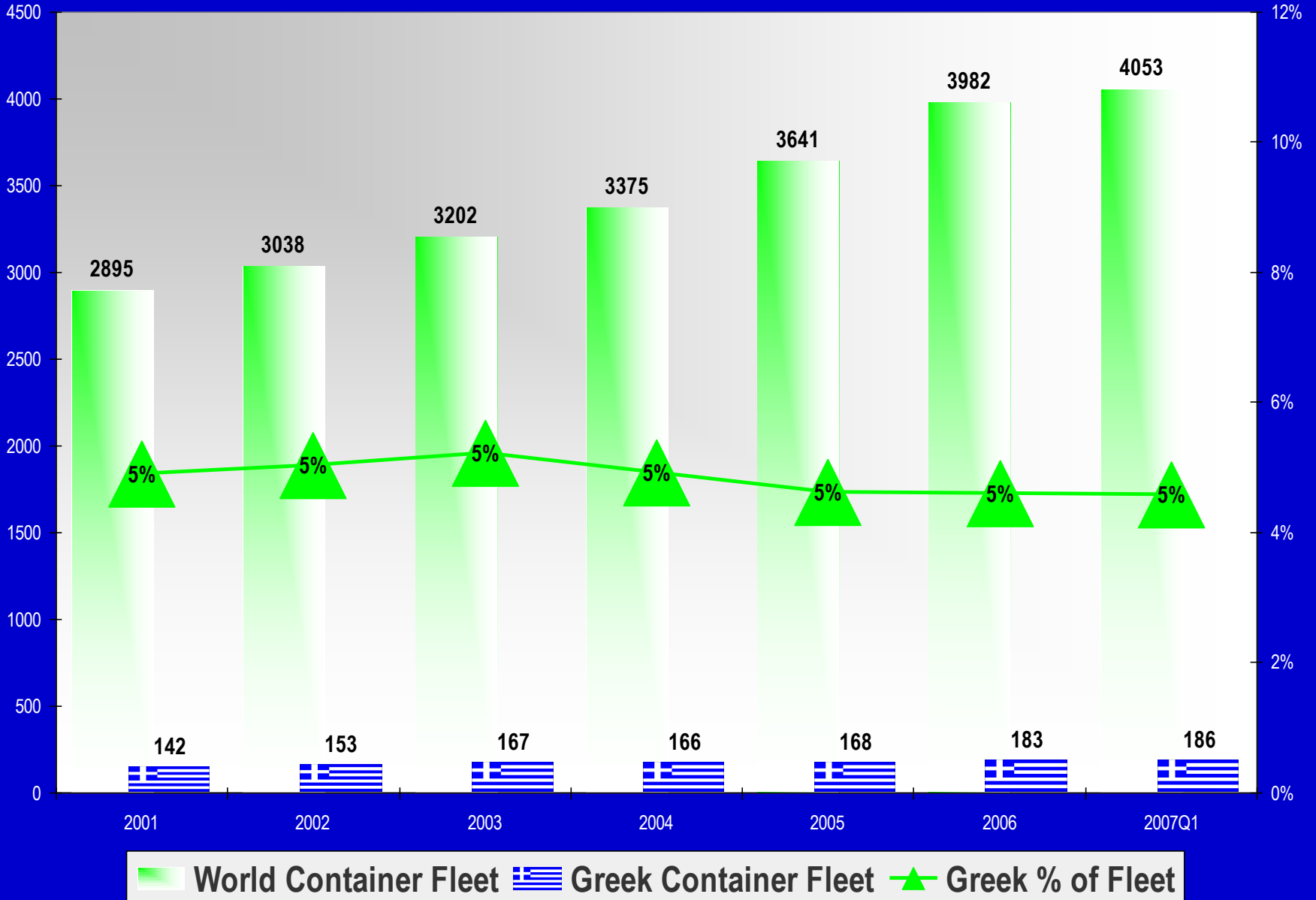


Greek Container Fleet

- The percentage held by Greeks of the container fleet has been remarkably steady, whilst the world fleet grew strongly.



World Container Fleet vs Greek Fleet (number of vessels)



 World Container Fleet  Greek Container Fleet  Greek % of Fleet

Data from Clarkson's & Galbraith's

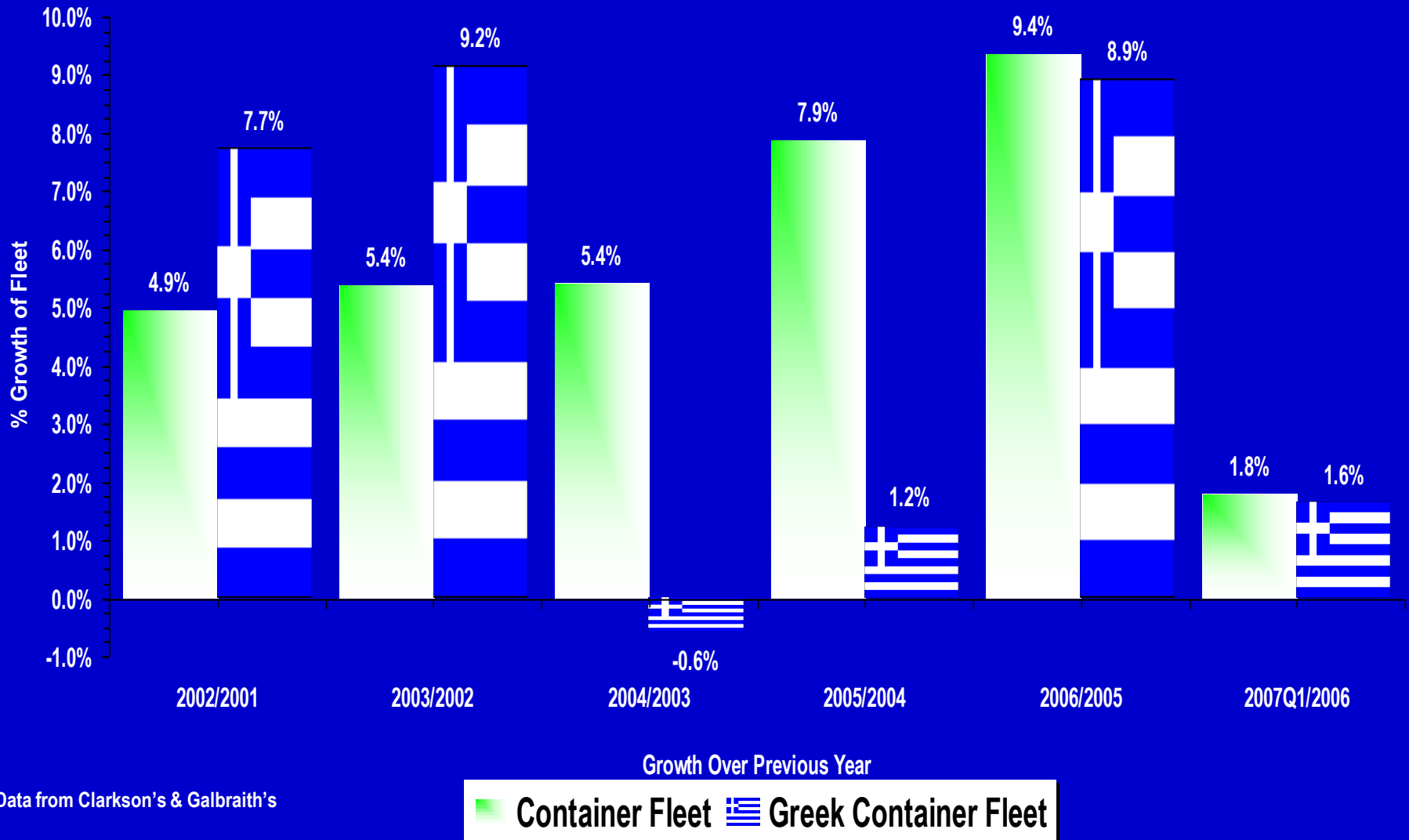


Greek Container Fleet

- In terms of numbers of vessels, there has been an expansion in line with the world fleet.



Growth of World Container Fleet vs Greek Fleet in number of vessels



Data from Clarkson's & Galbraith's

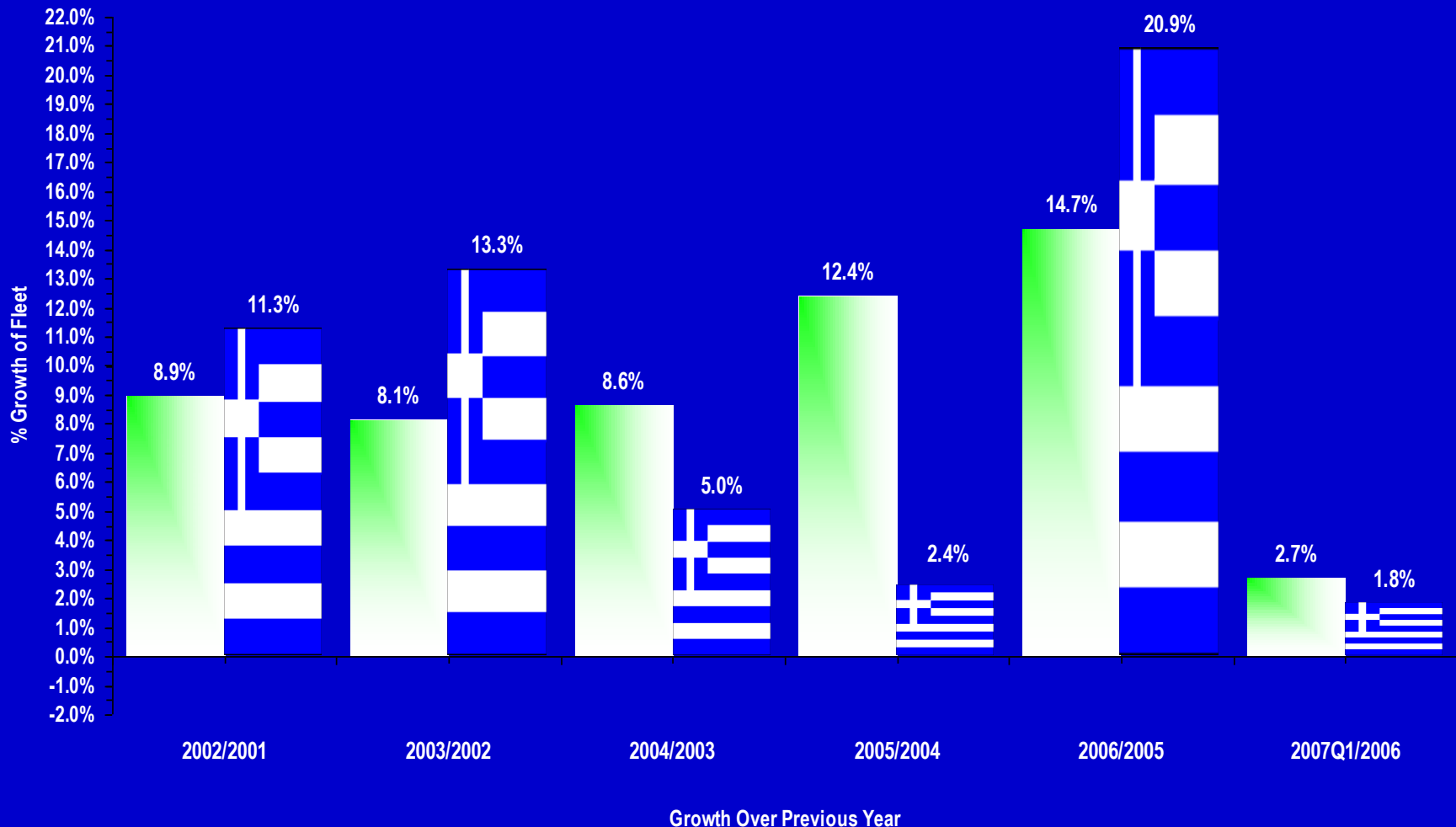


Greek Container Fleet

- DWT has gone up impressively, taking into account the large orders and IPO container fleets.



Growth of World Container Fleet vs Greek Fleet in DWT terms



World Container Fleet Growth  **Greek Container Fleet Growth** 

Data from Clarkson's & Galbraith's

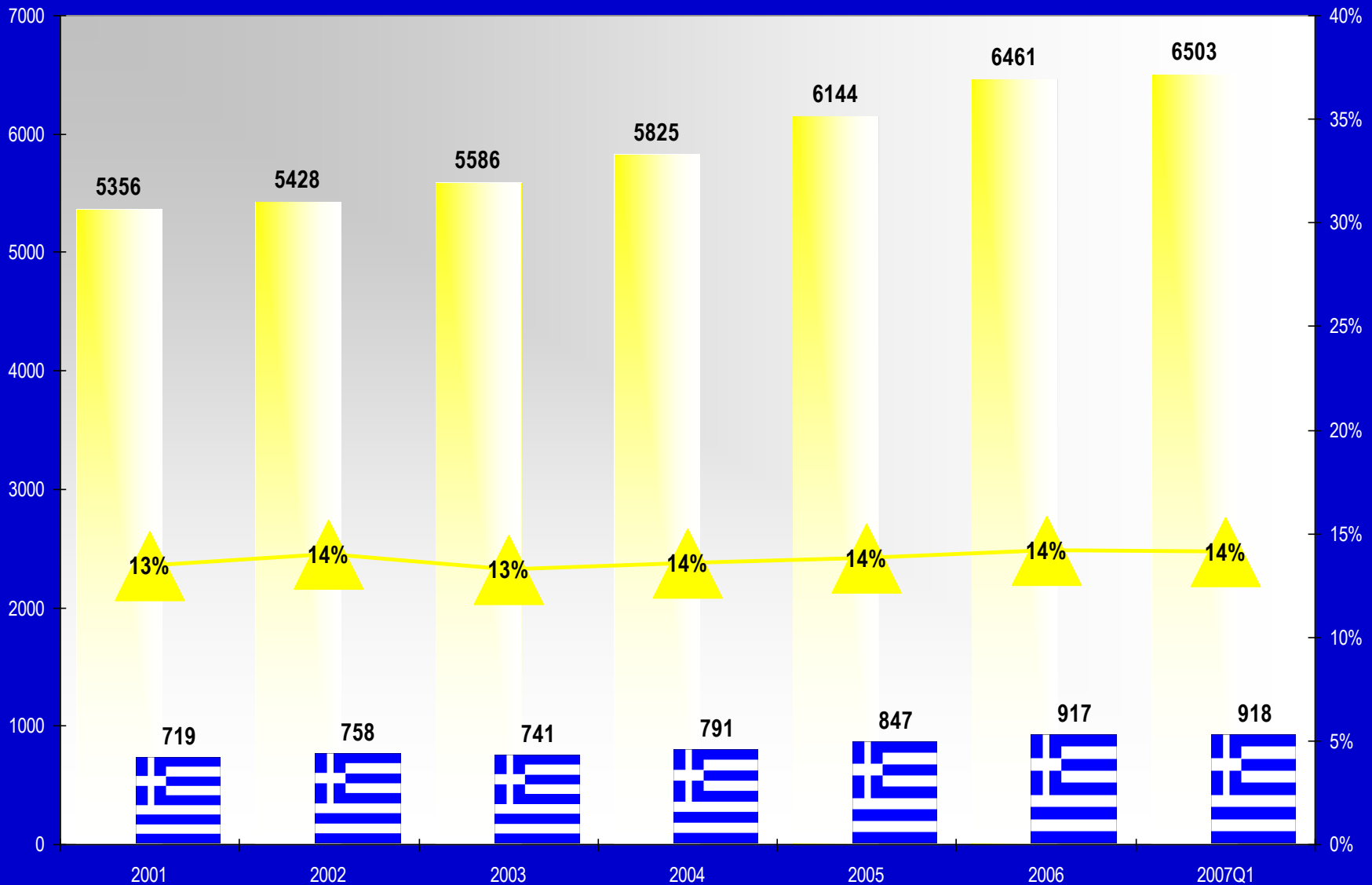


Greek Tanker Fleet

- Greek tankers also hold a steady position in the world tanker fleet, which is growing.



World Tanker Fleet vs Greek Fleet (number of vessels)



Data from Clarkson's & Galbraith's

World Tanker Fleet  Greek Tanker Fleet  Greek % of Fleet

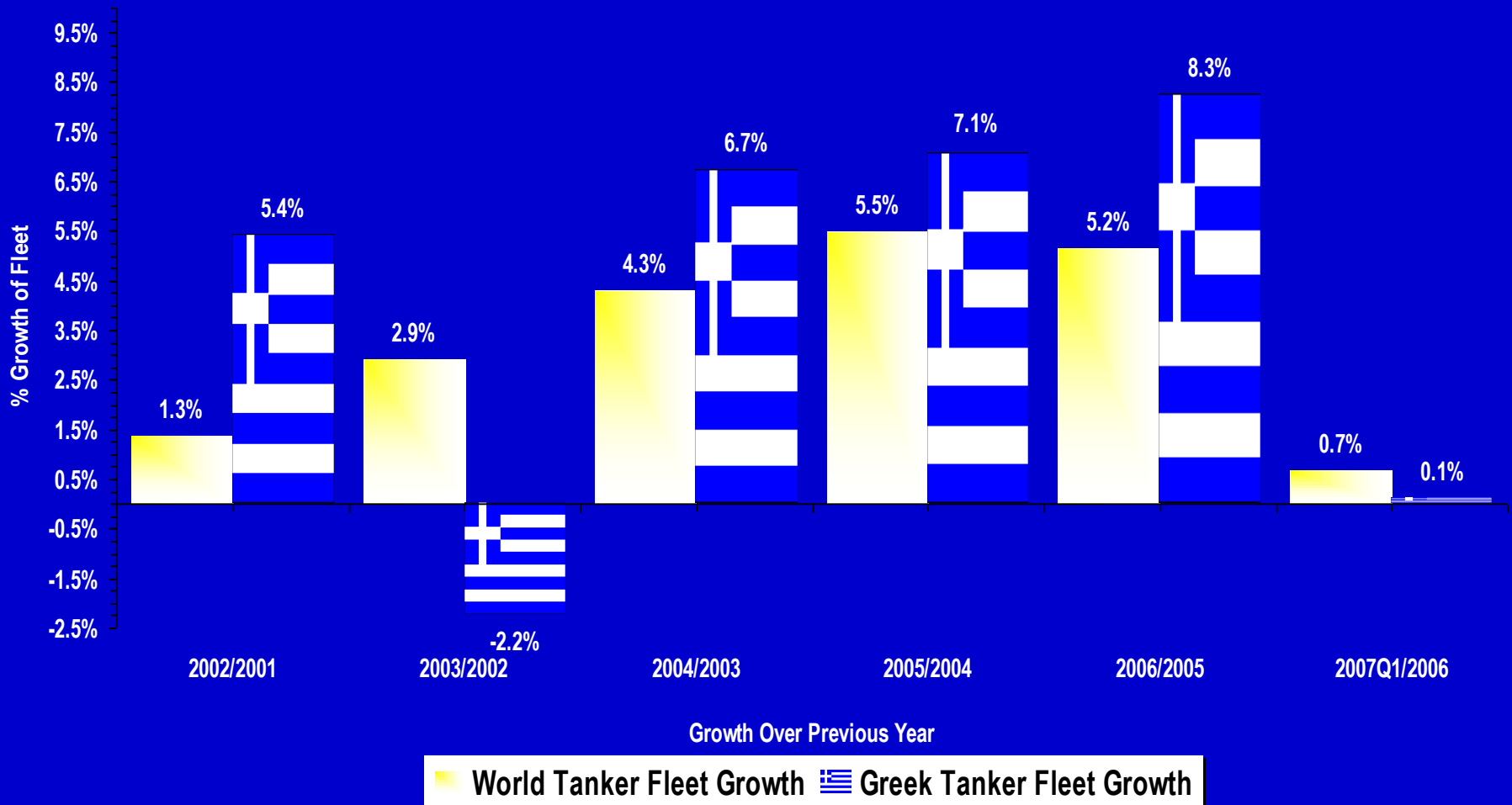


Greek Tanker Fleet

- In most years, growth in terms of numbers of vessels has been above the world rate.



Growth of World Tanker Fleet vs Greek Fleet in number of vessels



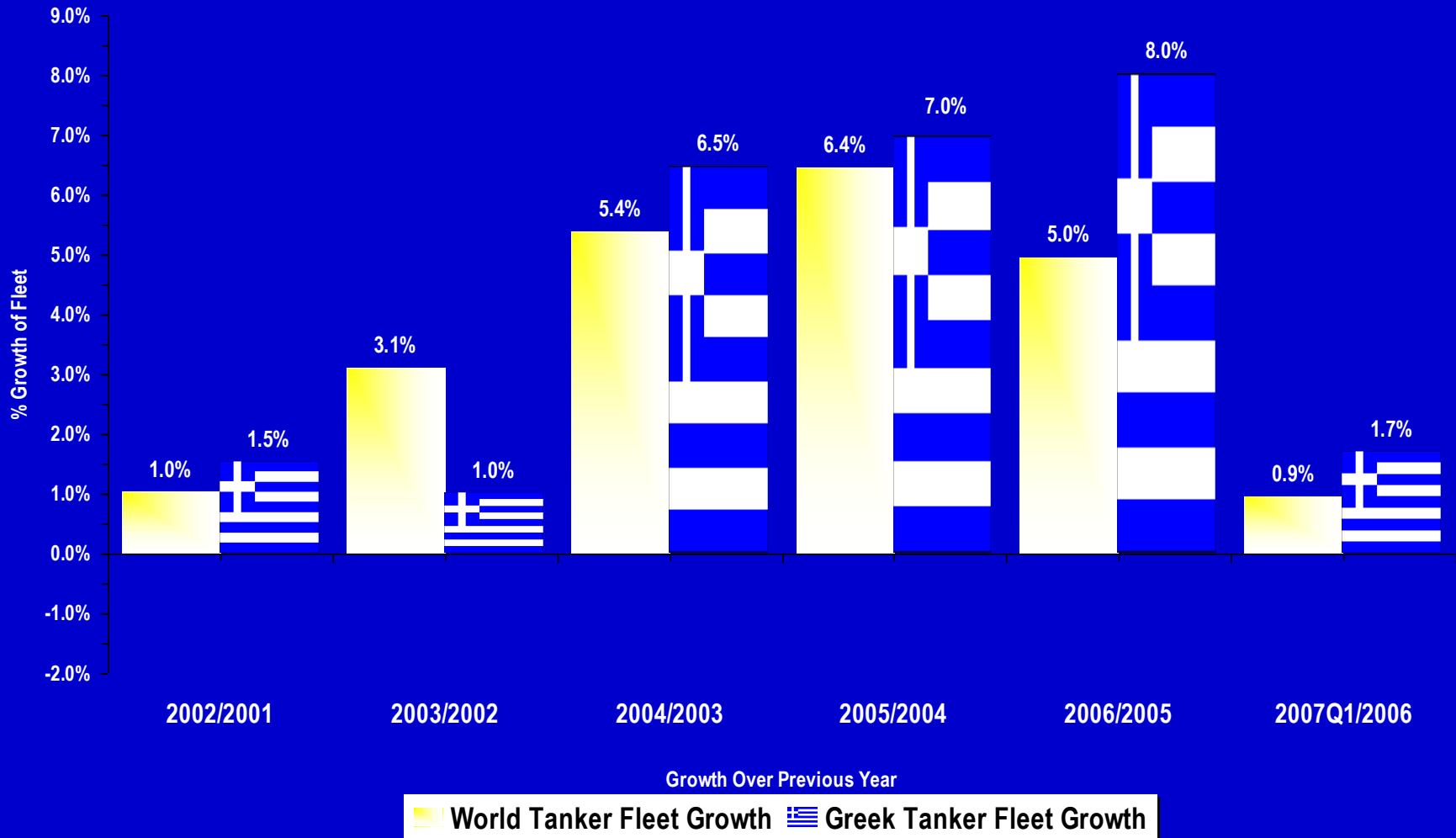


Greek Tanker Fleet

- In DWT terms, the fleet has grown more substantially, above the world rate of growth and continues to do so in the first quarter of 2007



Growth of World Tanker Fleet vs Greek Fleet in DWT terms



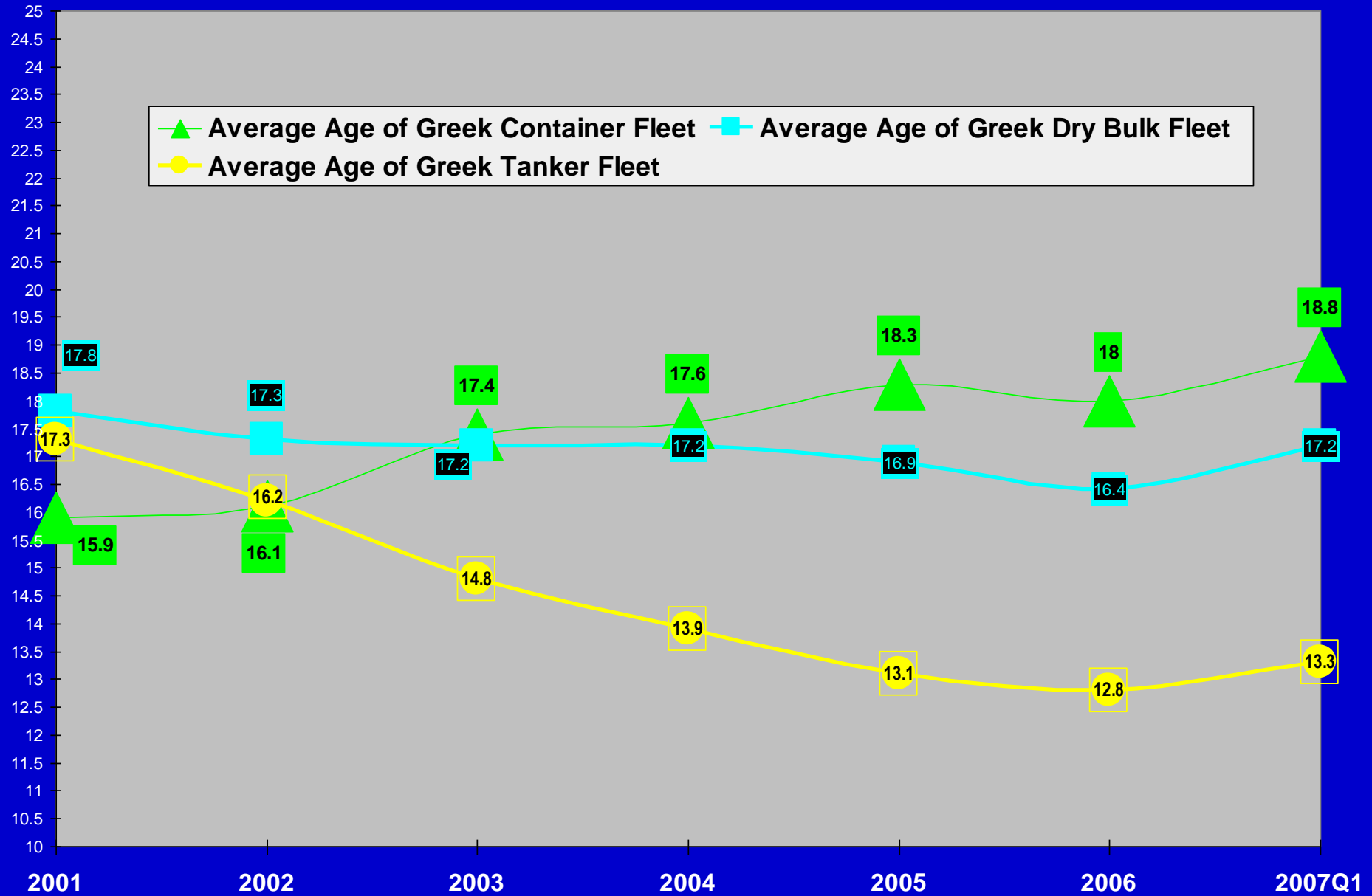


Age of Greek fleet

- The fleet has been steadily getting younger.
- The process of renovating the bulker fleet is challenging, as there are many small, old vessels that trade successfully for decades and there is no scrapping taking place across the fleet. Larger bulkers, though have been getting steadily younger.
- All sectors shall improve when the 557 newbuilding orders (tankers, bulkers and container vessels) are completed and delivered in the next 2-3 years



Average Age of Greek Fleets



Data from Clarkson's & Galbraith's



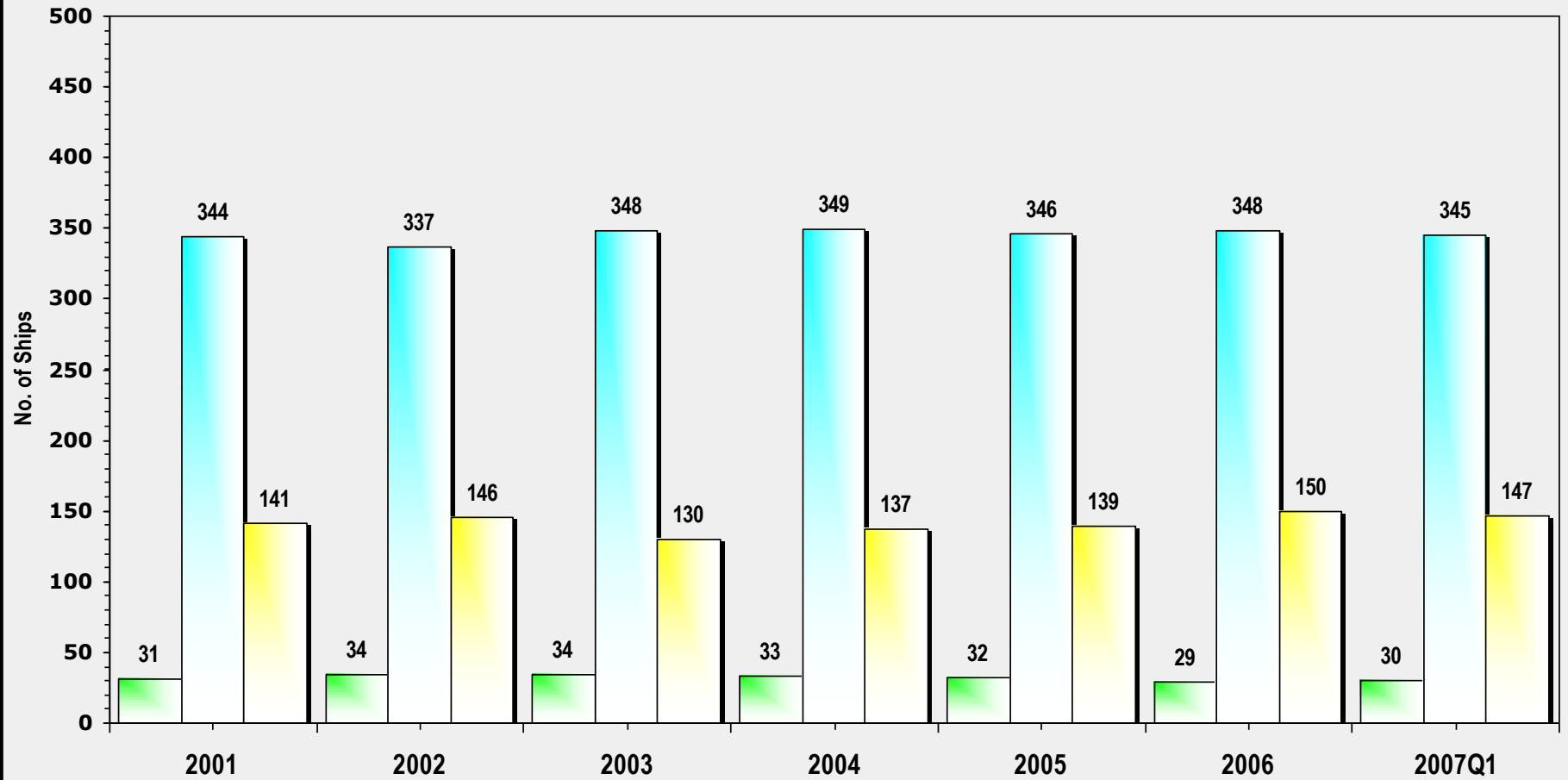
Number of Greek owners

- Most of the 522 owners (with a cut-off threshold 10,000DWT) are in the dry sector.
- Their numbers are not consolidating as fast as one would anticipate due to the booming market conditions.



Greek Owners

■ Number of Greek Container Owners ■ Number of Greek Dry Bulk Owners ■ Number of Greek Tanker Owners



Development of the Chinese fleet

- It is commonplace knowledge that the Chinese fleet is evolving fast, both in numbers and in size of units.
- There are about 2000 small and very small owners in China with very few and very old vessels of every type and inadequate resources to finance their expansion
- Chinese shipyards are becoming the world leaders. But are they building for themselves?





Chinese fleet

- Latest figures show that China is not among the leaders in placing orders in Chinese shipyards.
- The total number of n/b's on order (tankers, Bulkers and Container vessels) are 324.
- China needs shipping to carry out its 492.5m tons (just for 2007 so far) of exports and bring in its 917.9m tons (again just for 2007 so far) of imports.



Chinese fleet

- China's legendary 11.1 growth for the first quarter this year is creating a range of emotions from awe to trepidation.



Chinese fleet

- China has shown consistent growth over the years. In the next few slides, we note some enormous leaps around 2004 both in terms of numbers of vessels, as well as in DWT.

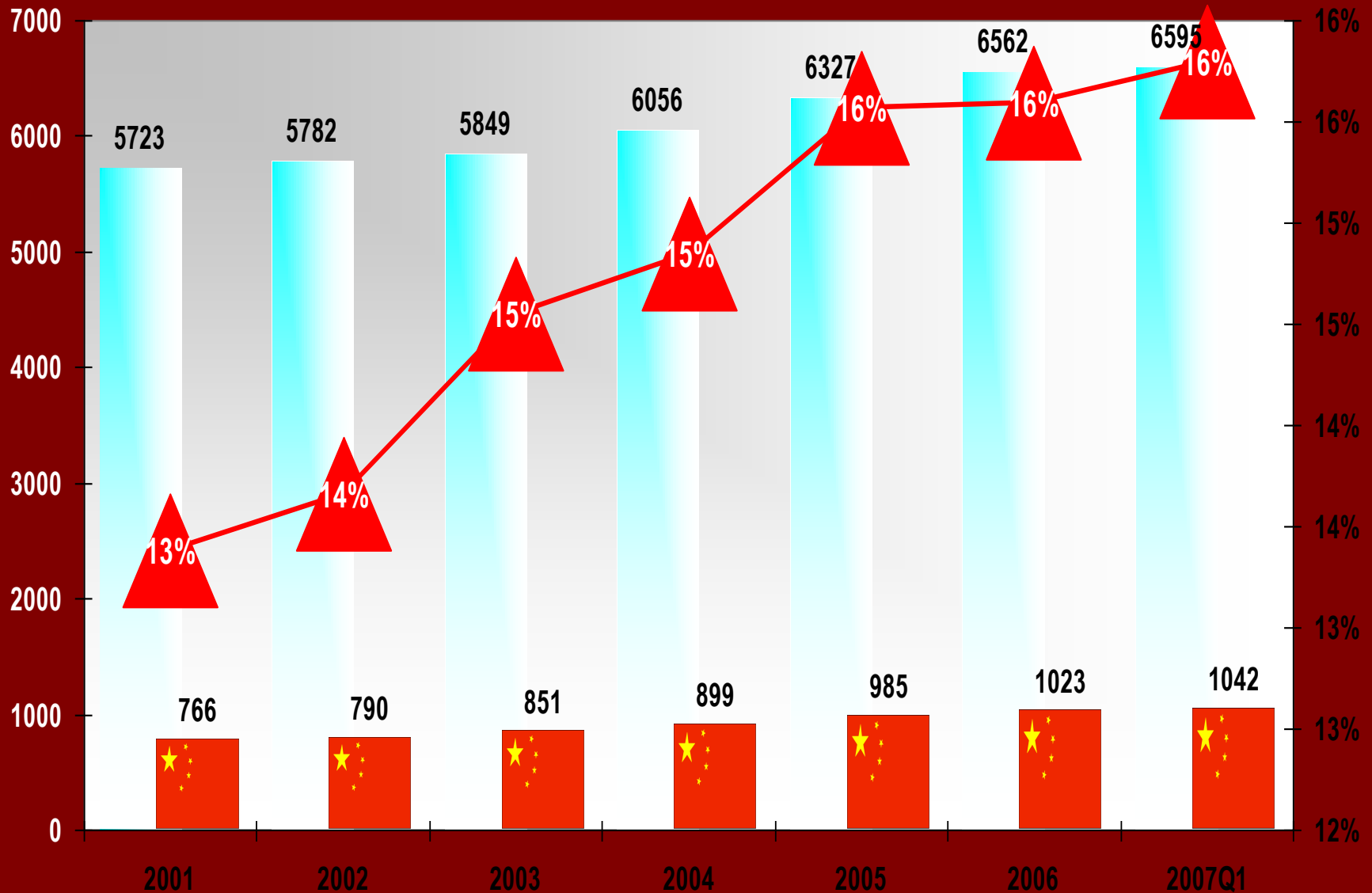


Chinese fleet

- In the Dry Bulk sector, 14% of the world fleet is in Chinese hands in DWT terms and 16% in terms of number of vessels.



World Dry Bulk Fleet vs Chinese Fleet (number of vessels)



Data from Clarkson's & Galbraith's

 Dry Bulk Fleet  Chinese Dry Bulk Fleet  Chinese % of Fleet

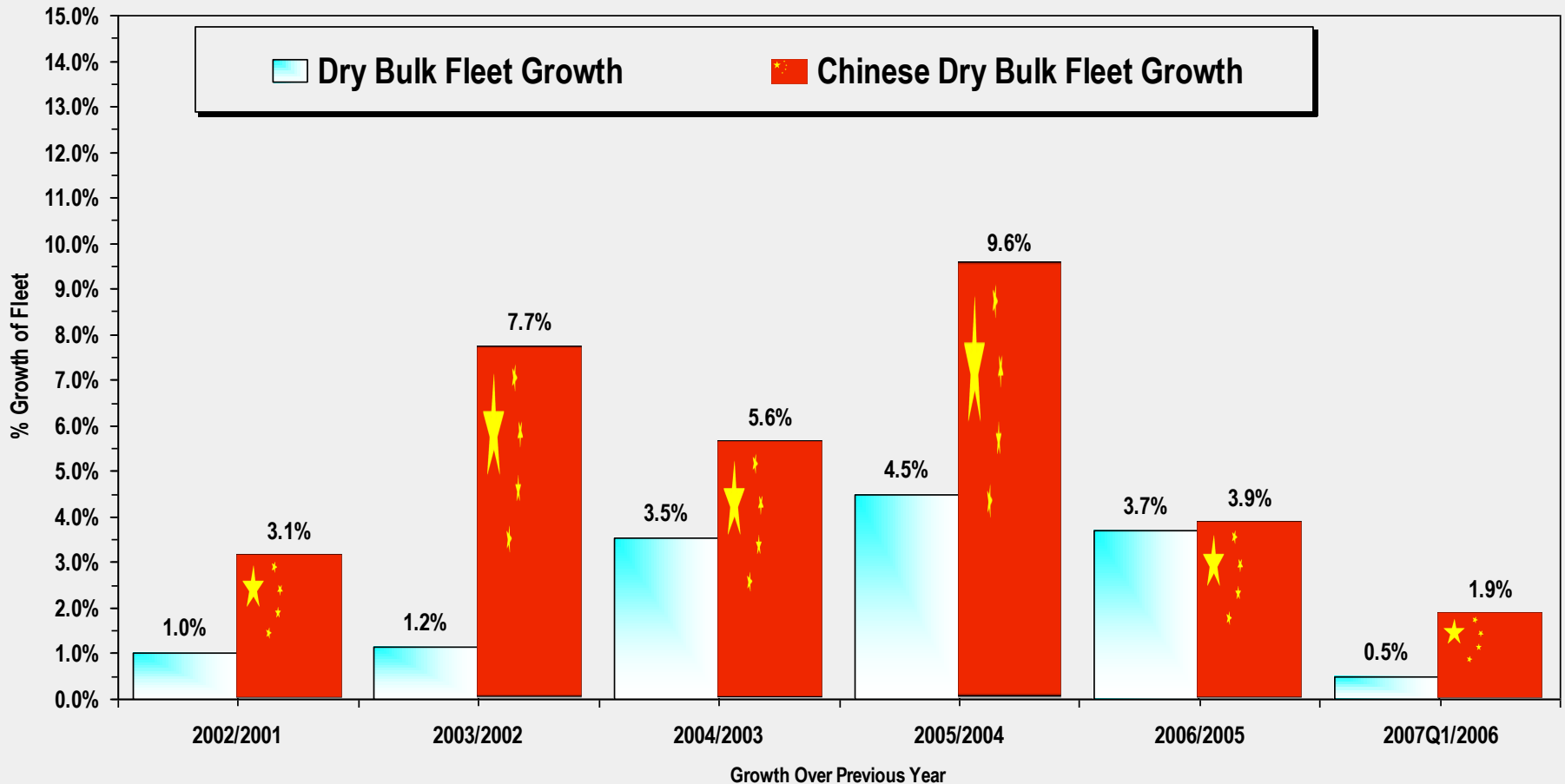


Chinese Fleet

- In both DWT and number of vessels terms, the Chinese bulker fleet went up impressively in 2004.
- Since then, it maintains a growth pattern, which has just overcome world fleet growth the first quarter of 2007.

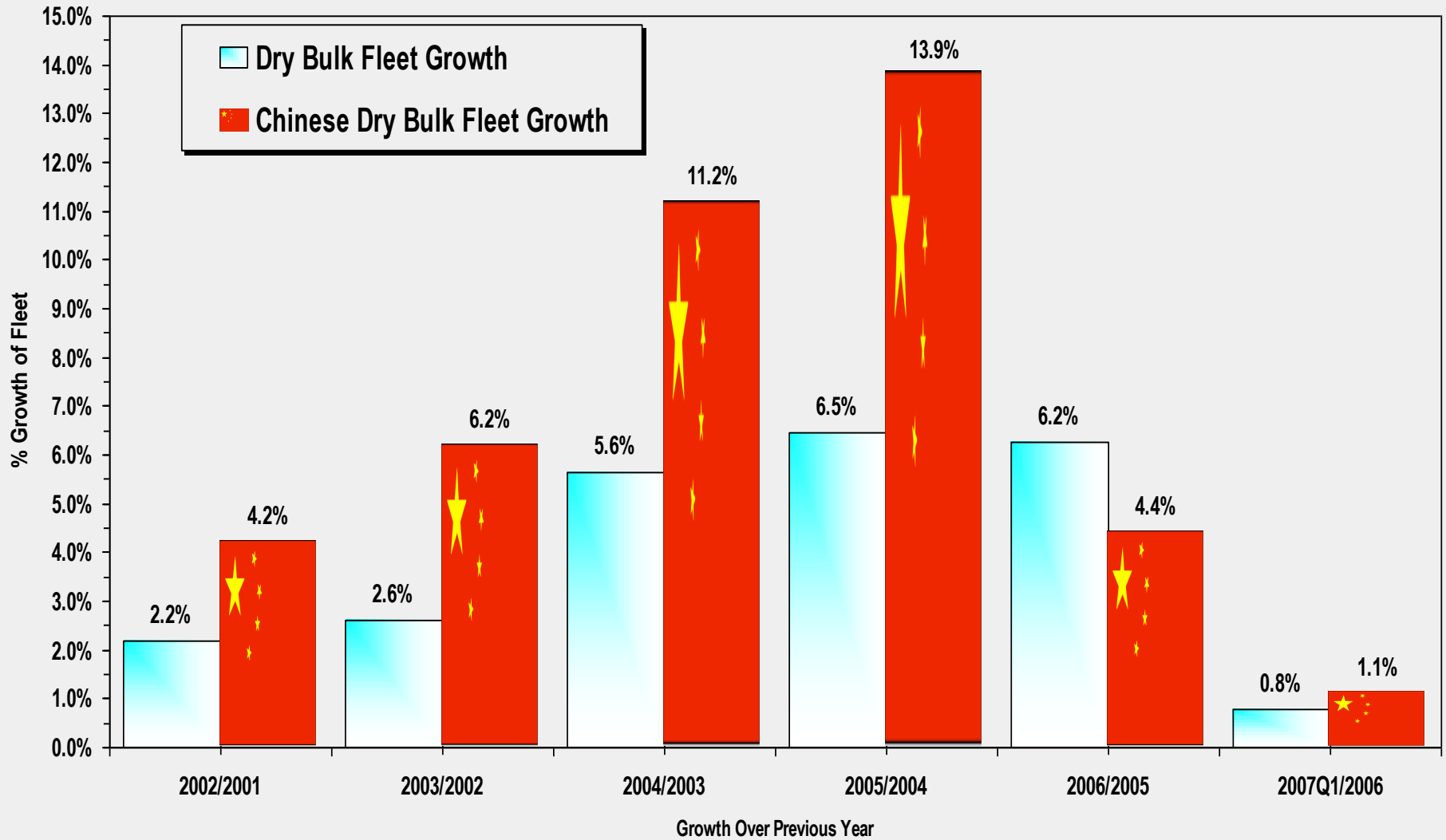


Growth of Dry Bulk Fleet vs Chinese Fleet in number of vessels





Growth of Dry Bulk Fleet vs Chinese Fleet in DWT terms



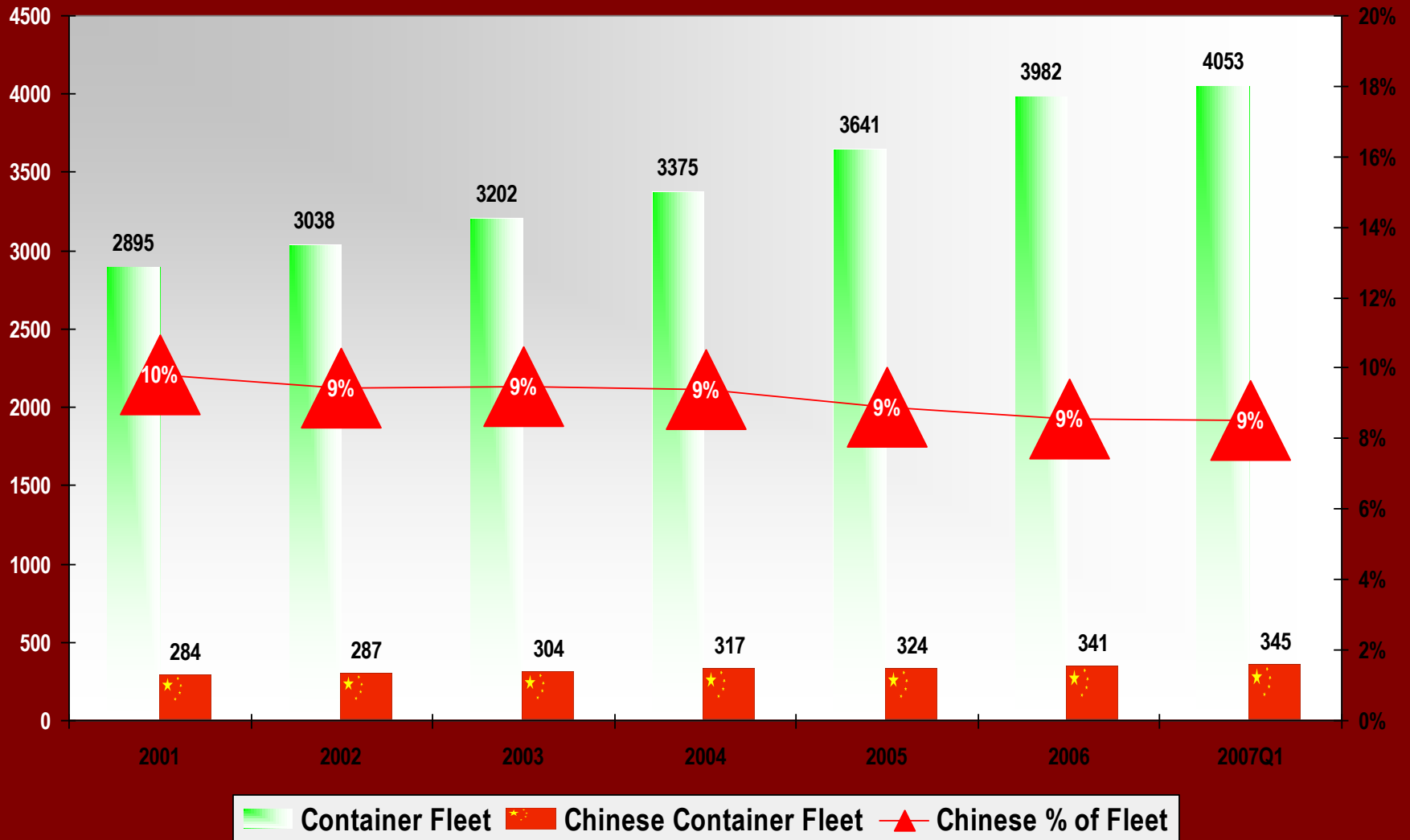


Chinese Container Fleet

- The percentage held by the Chinese is also steady in this sector and moving along the world fleet growth rate in terms of number of vessels.
- In DWT terms, the biggest leap occurred in 2003 and has been quite strong since.

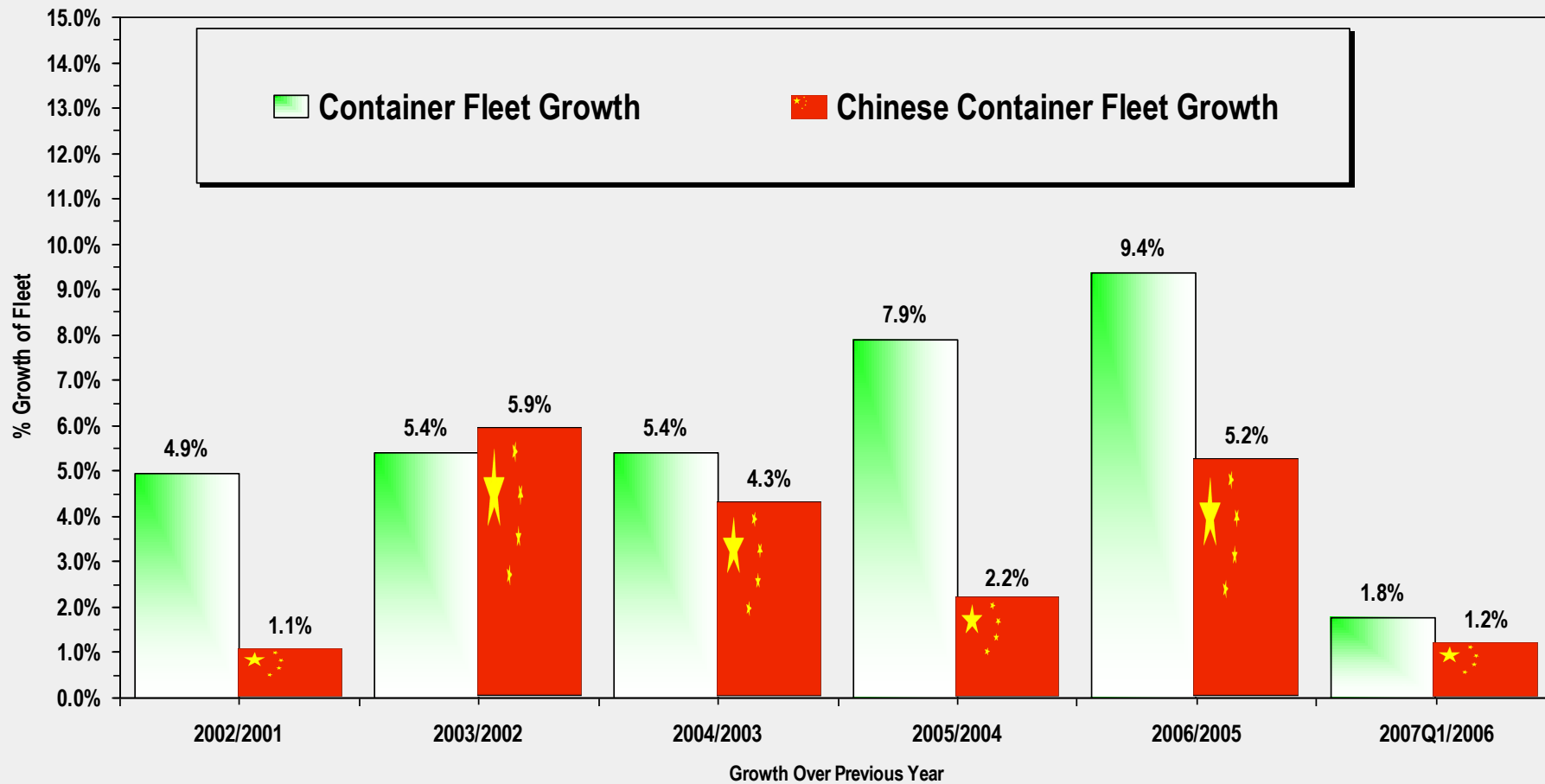


World Container Fleet vs Chinese Fleet (number of vessels)



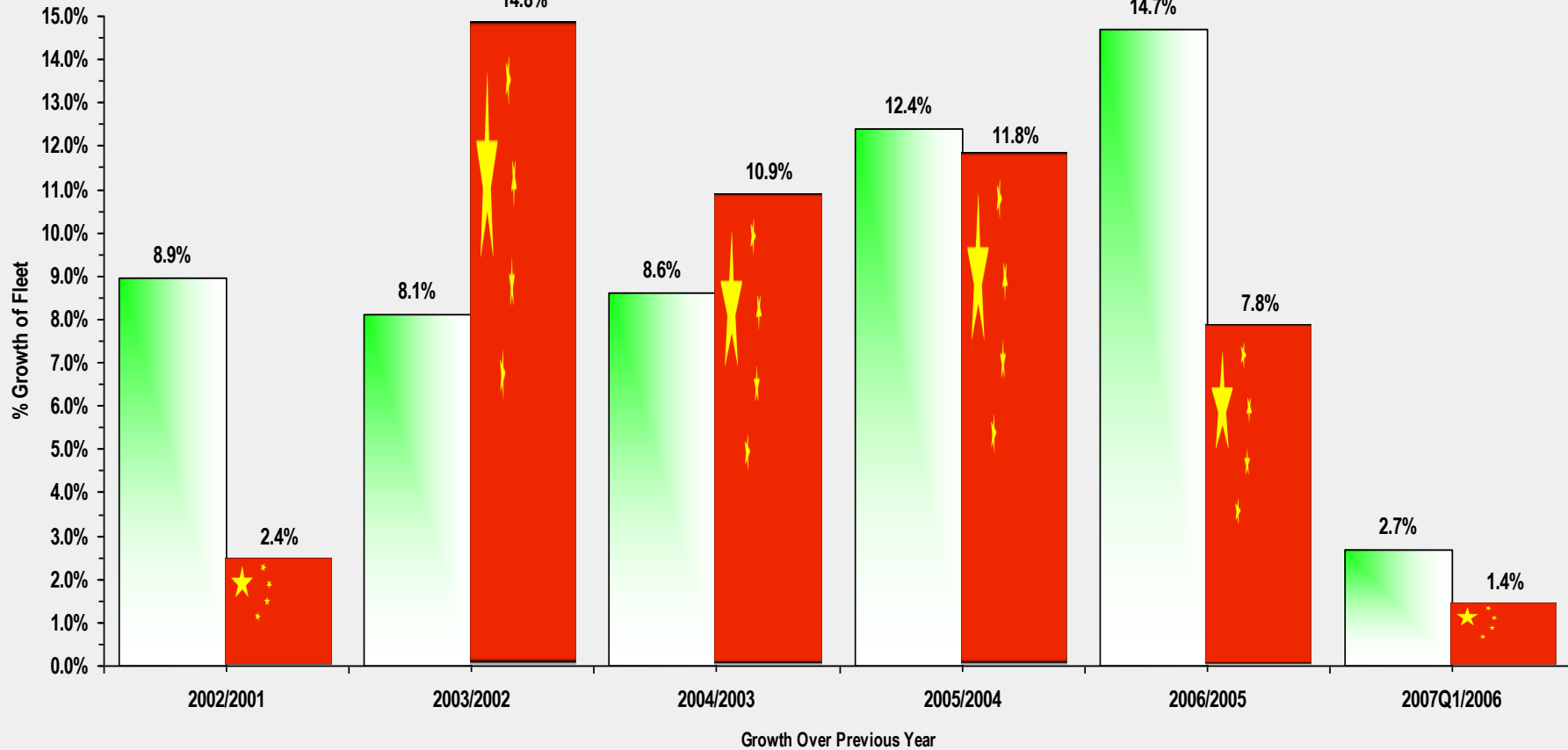


Growth of Container Fleet vs Chinese Fleet in number of vessels





Growth of Container Fleet vs Chinese Fleet in DWT terms



 Container Fleet Growth  Chinese Container Fleet Growth

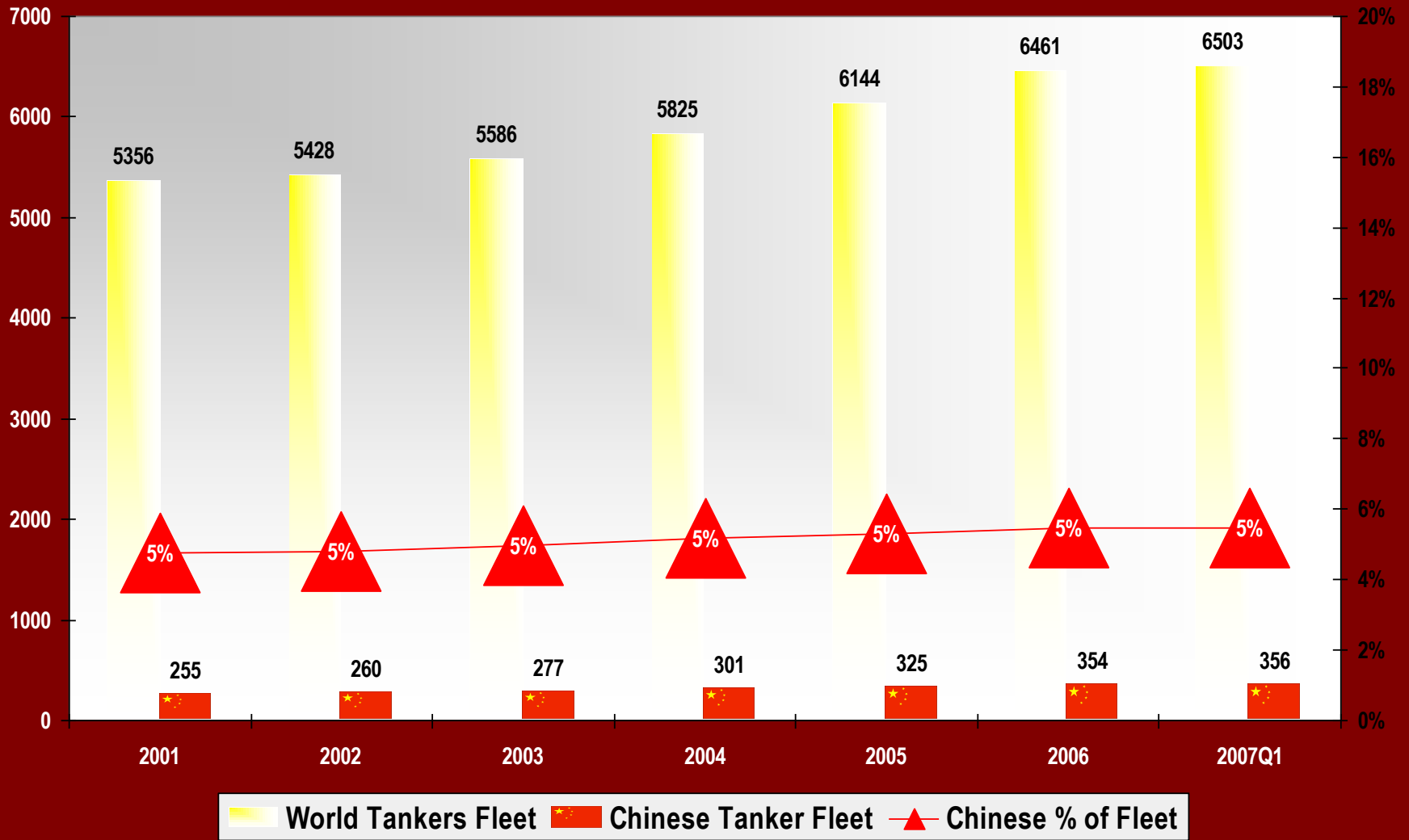


Chinese Tanker Fleet

- Chinese tankers are remarkably steady at 5% of the world tanker fleet, in both number of vessels and DWT.

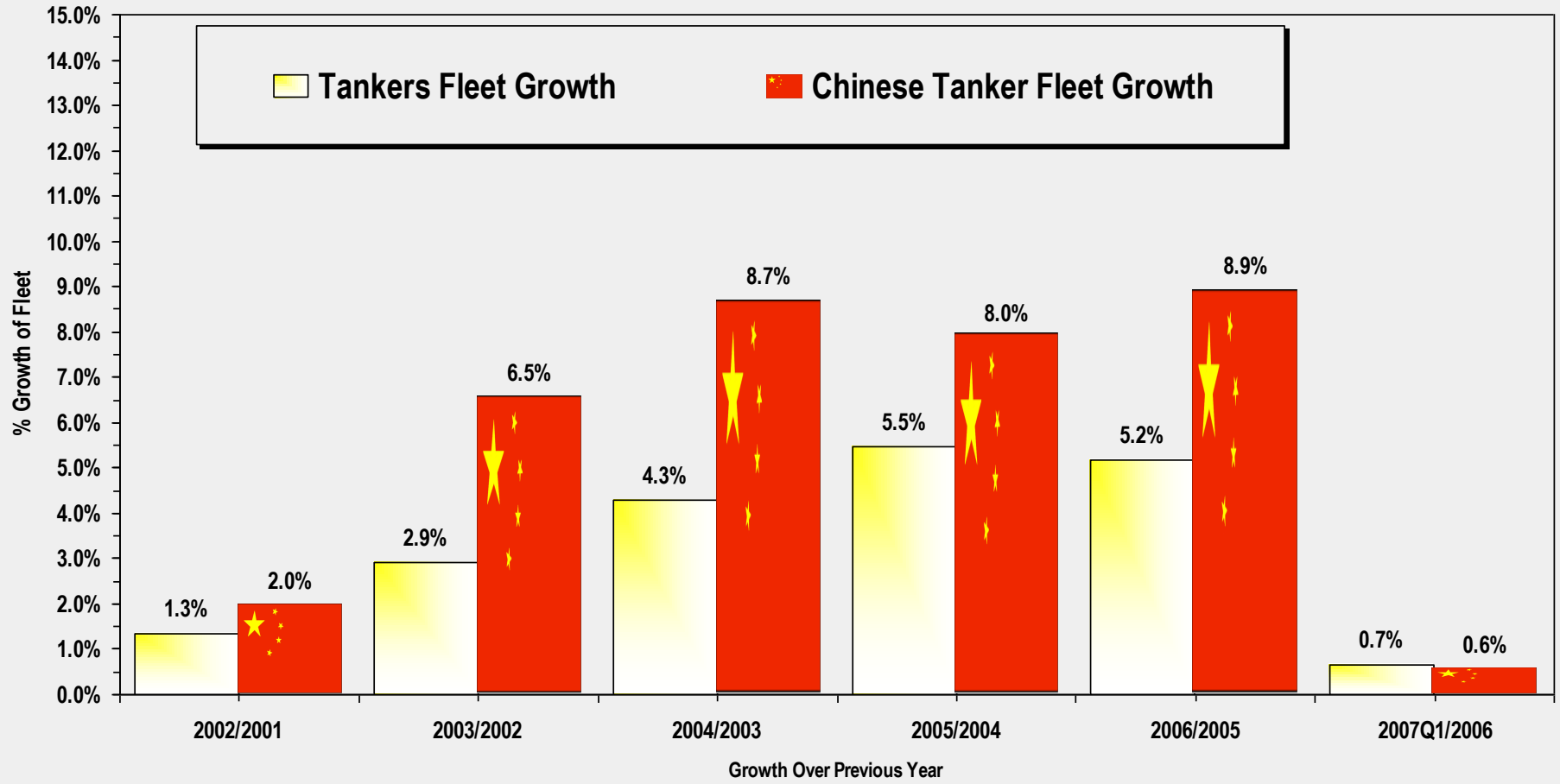


World Tanker Fleet vs Chinese Fleet (number of vessels)



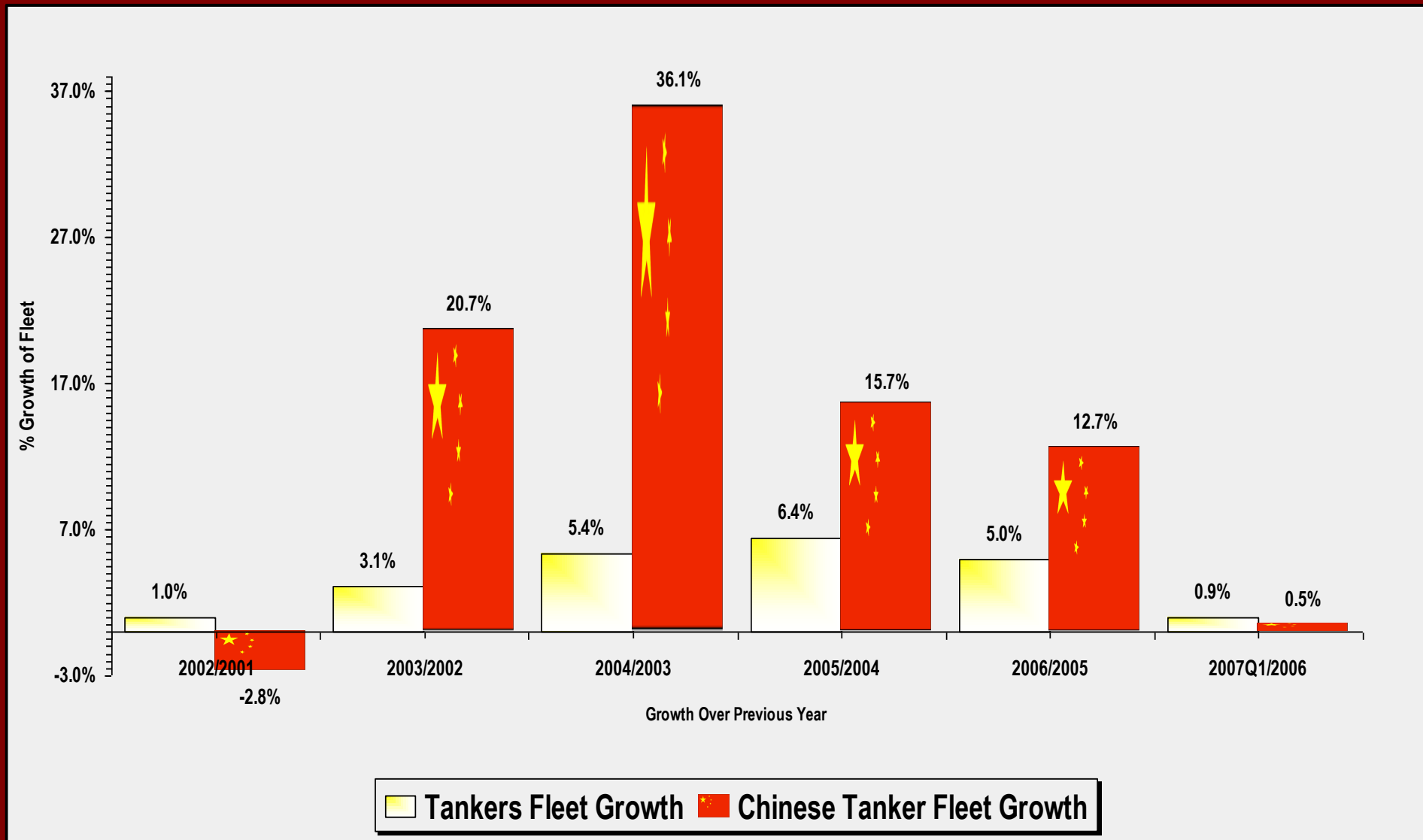


Growth of Tanker Fleet vs Chinese Fleet in number of vessels





Growth of Tanker Fleet vs Chinese Fleet in DWT terms



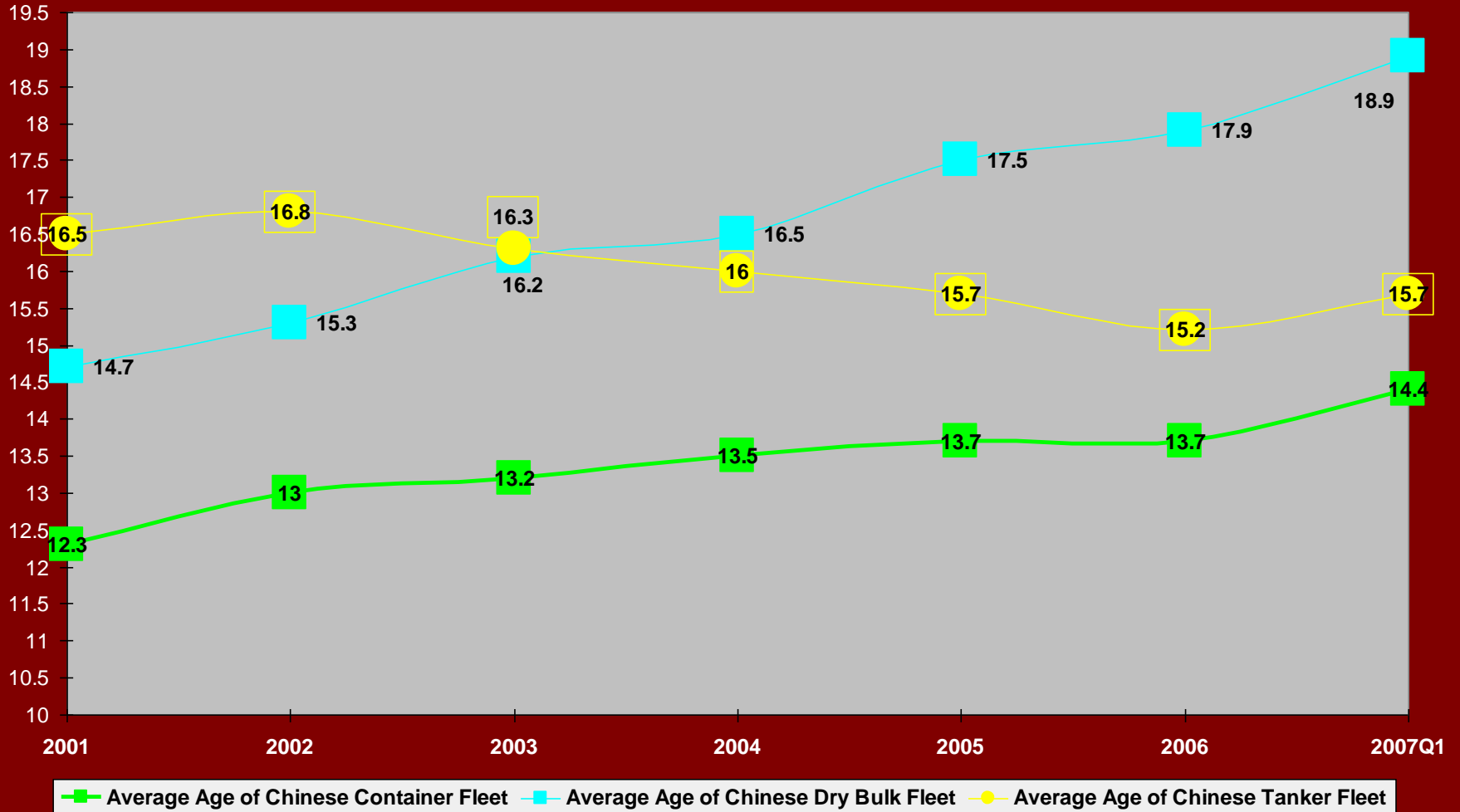


Age of Chinese fleet

- Containers are the sector with the youngest vessels.
- Bulkers look older, but great many purchases of second-hand tonnage lies behind this trend.



Average Age of Chinese Fleets



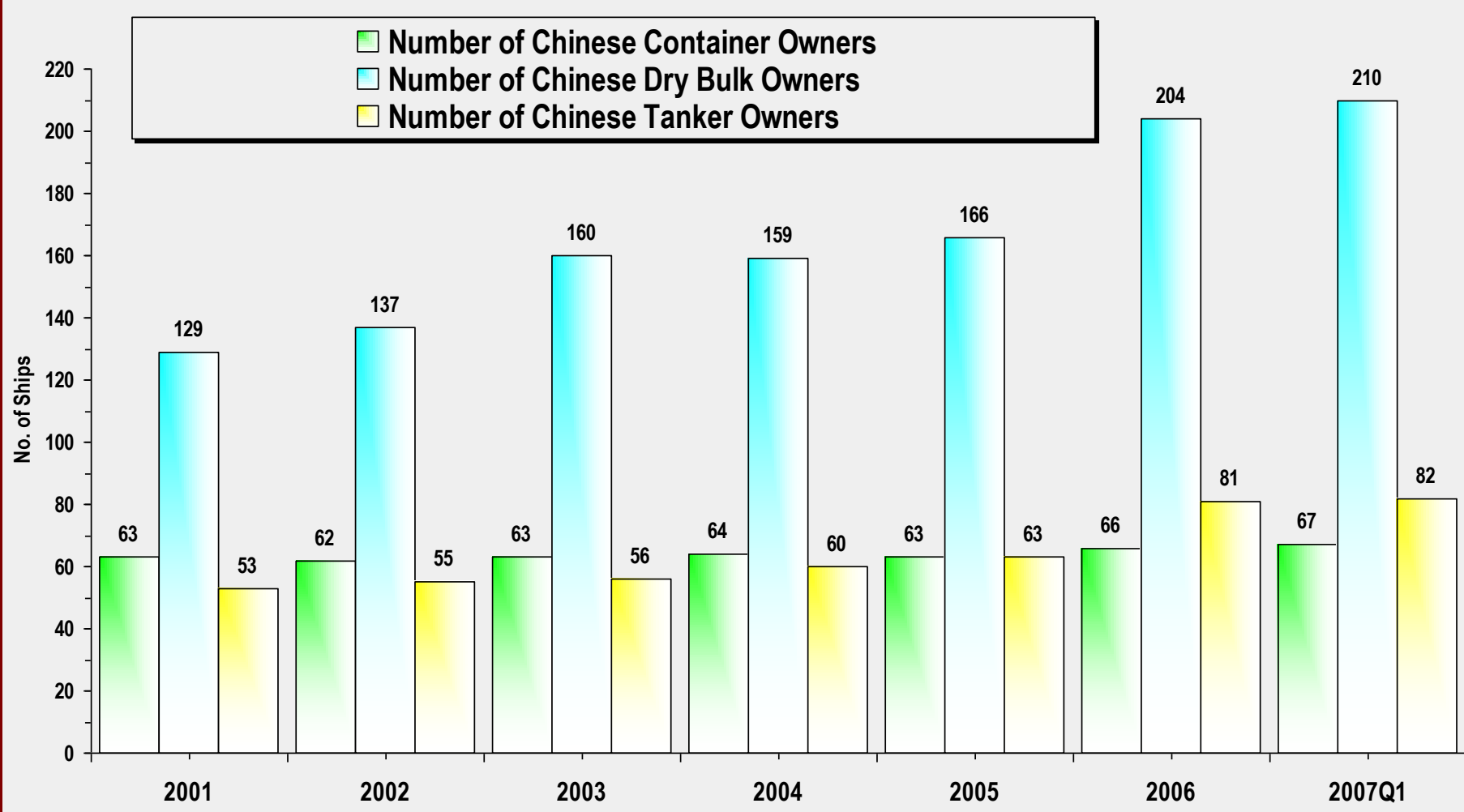


Number of Chinese owners

- The 359 owners shown here are those with a cut-off tonnage threshold of 10,000DWT per vessel.
- We note a slight upward trend in their numbers year-on-year.



Chinese Owners

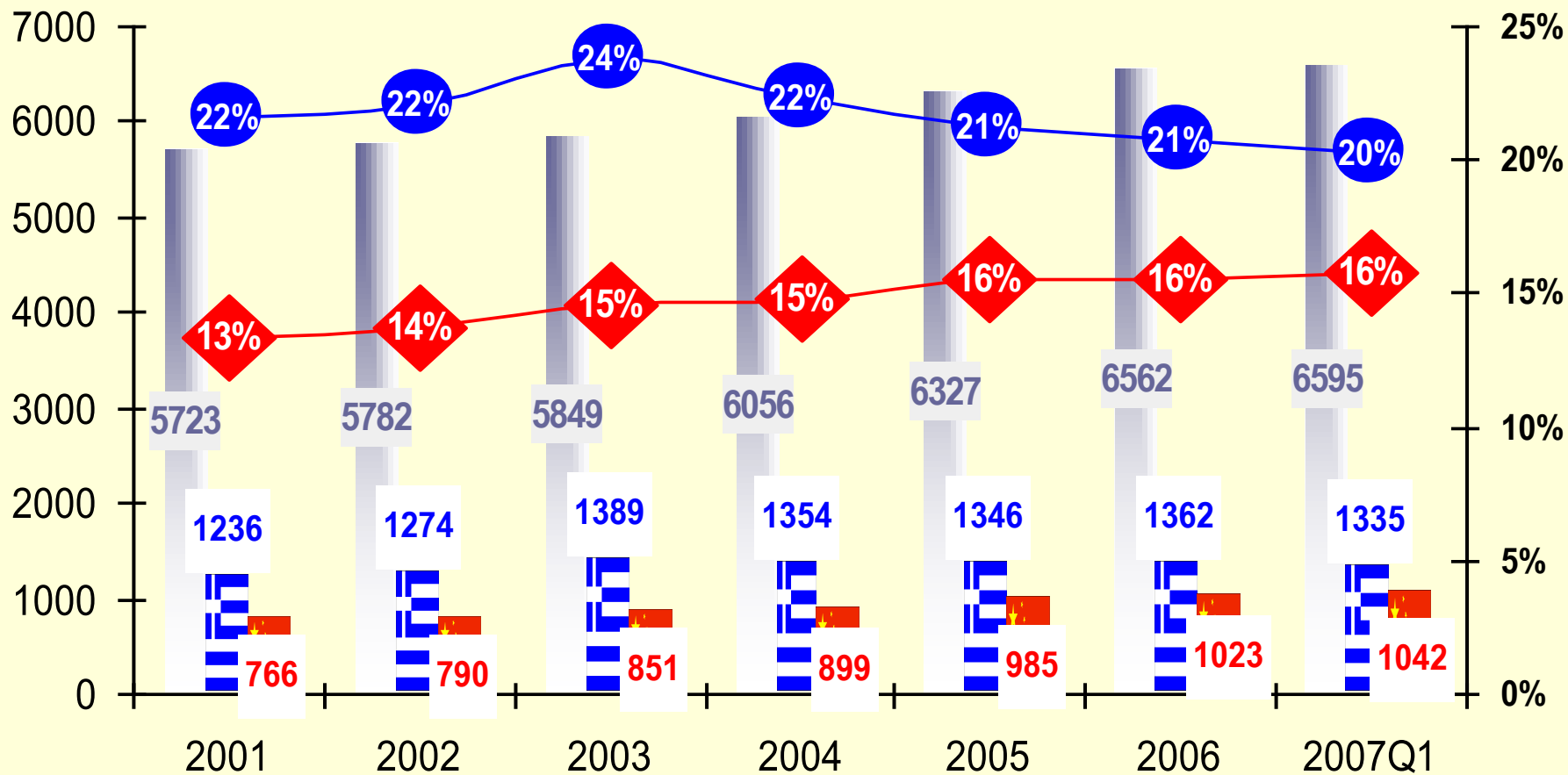




Comparisons between the Chinese and the Greek fleet



Fleet share of China and Greece in the Dry Bulk Sector in number of vessels terms

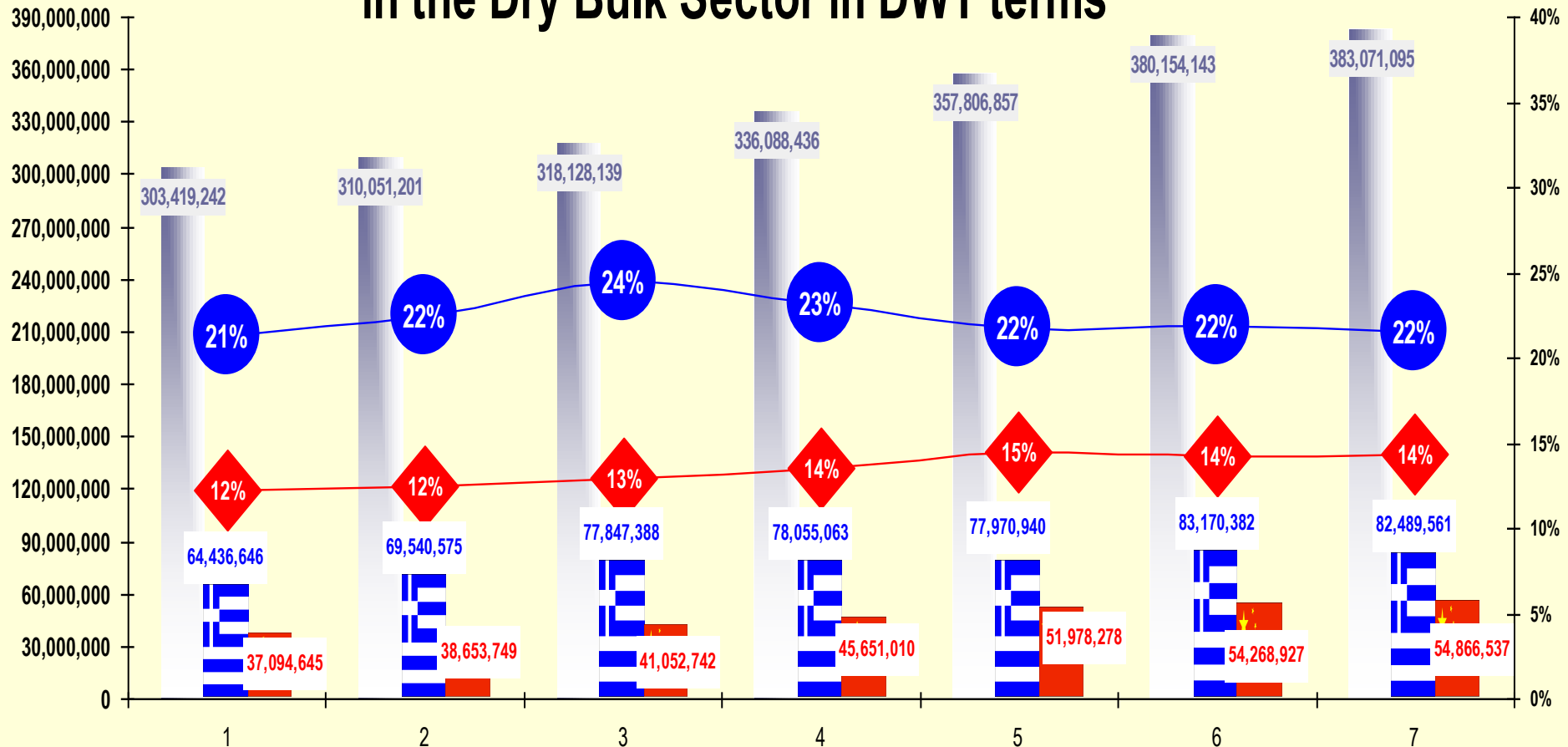


World Dry Bulk Fleet Greek Dry Bulk Fleet
Chinese Dry Bulk Fleet Chinese % of Fleet
Greek % of Fleet





Fleet share of China and Greece in the Dry Bulk Sector in DWT terms

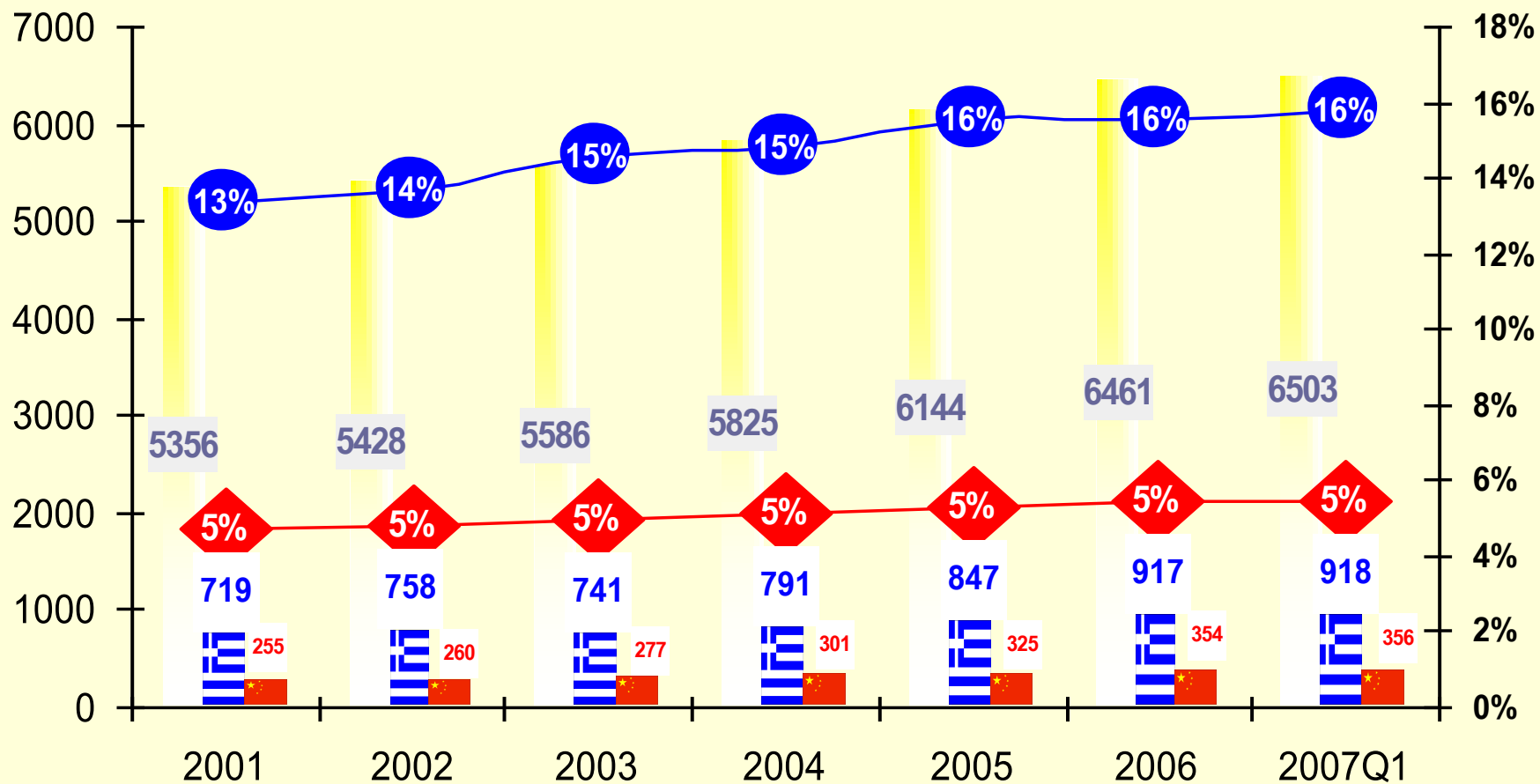


World Dry Bulk Fleet Greek Dry Bulk Fleet Chinese Dry Bulk Fleet
Greek % of Fleet Chinese % of Fleet





Fleet share of China and Greece in the Tanker Sector in number of vessels' terms

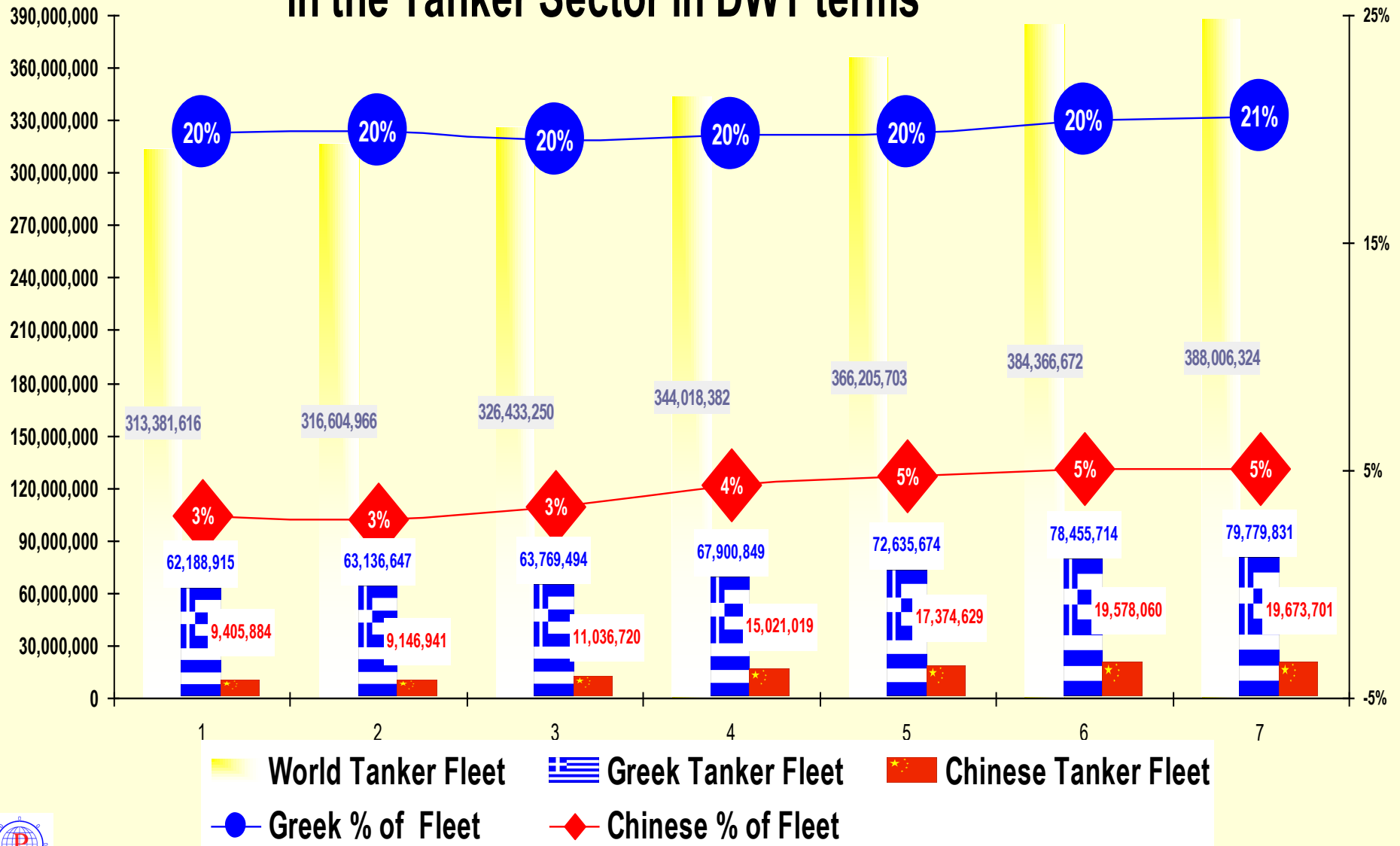


World Tankers Fleet Greek Tanker Fleet Chinese Tanker Fleet
Chinese % of Fleet Greek % of Fleet



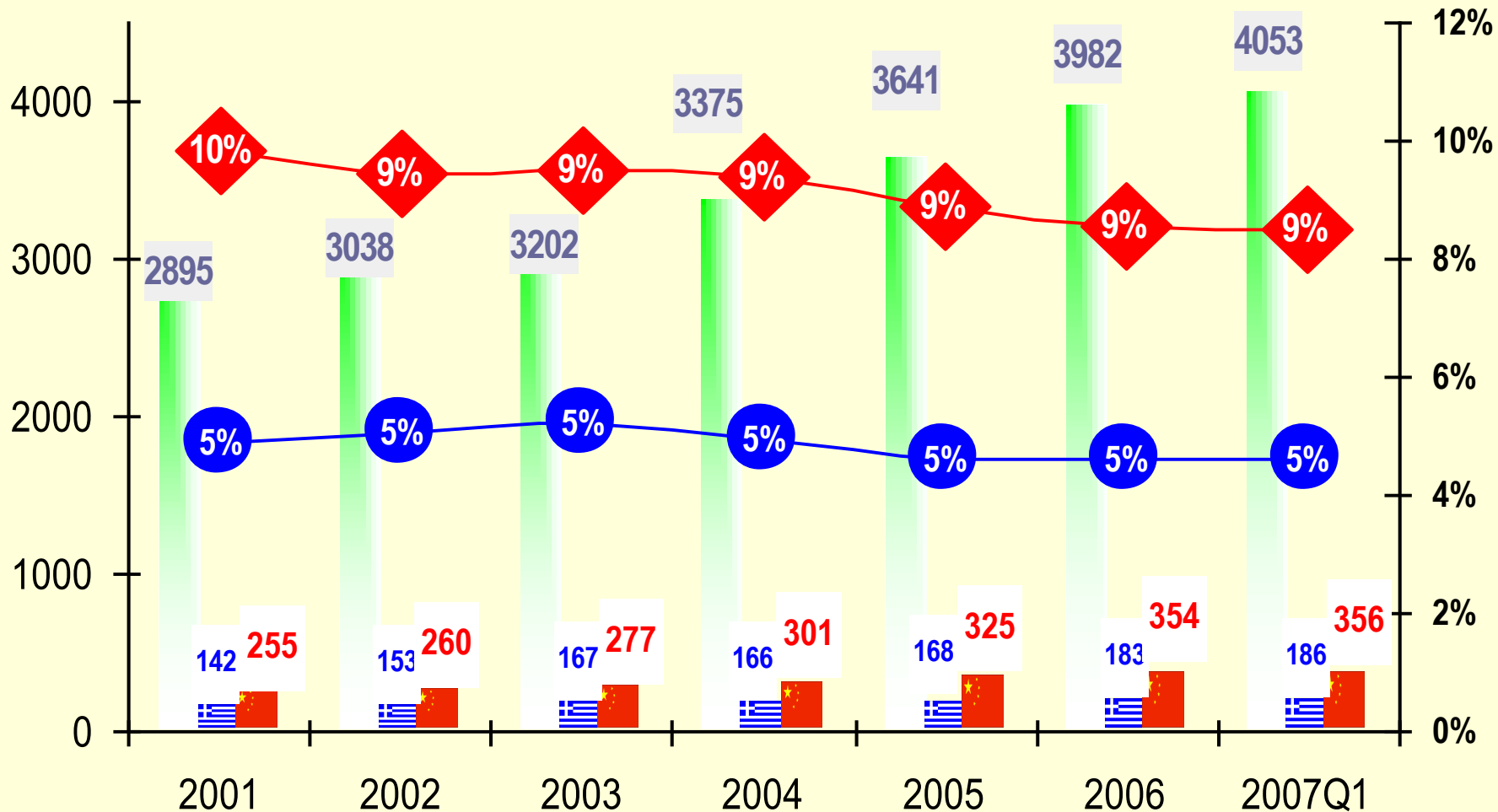


Fleet share of China and Greece in the Tanker Sector in DWT terms





Fleet share of China and Greece in the Container Sector in number of vessels' terms

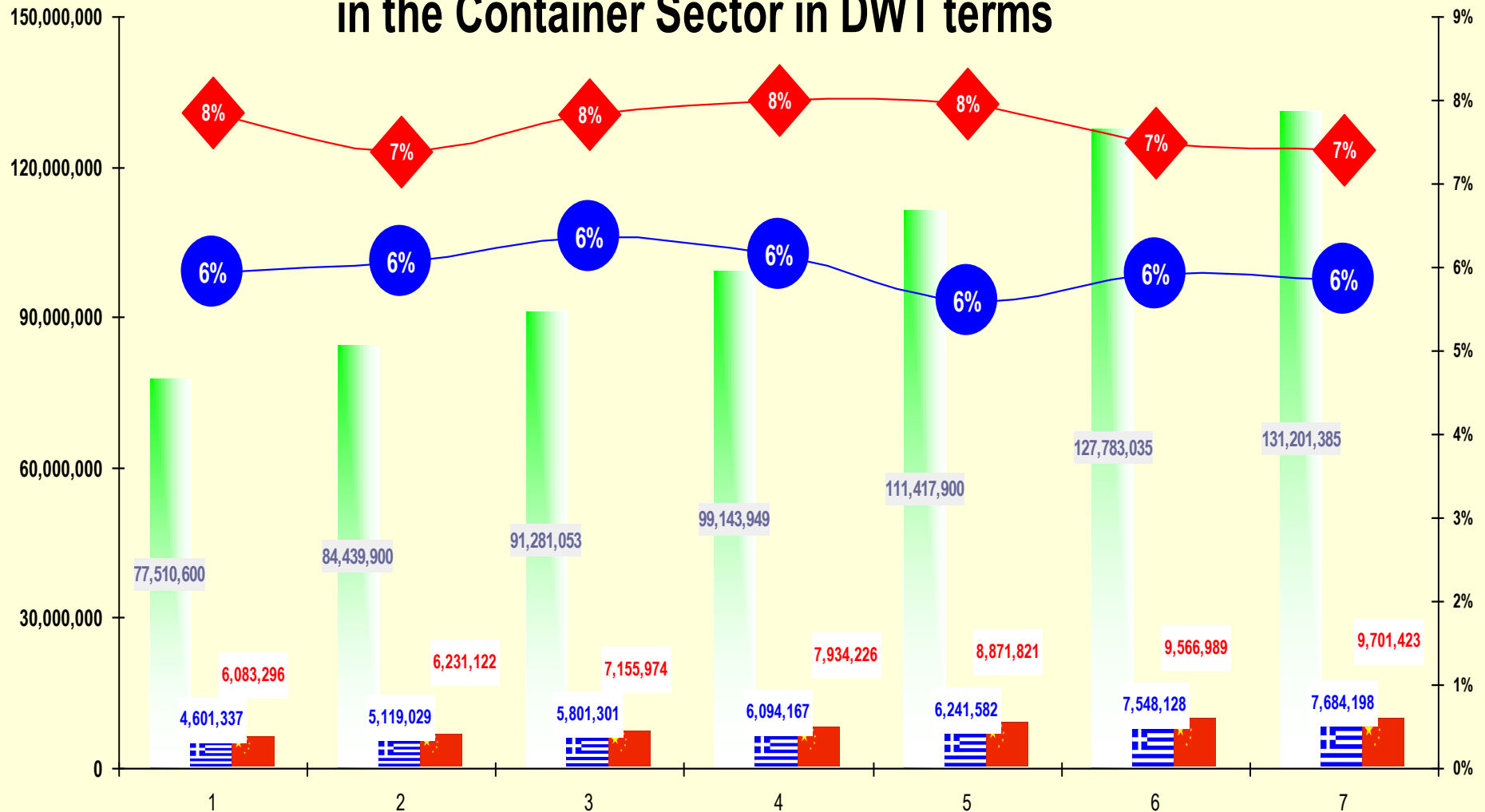


 Container Fleet  Greek Container Fleet  Chinese Container fleet
 Chinese % of Fleet  Greek % of Fleet



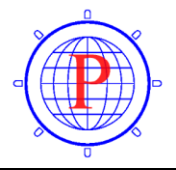


Fleet share of China and Greece in the Container Sector in DWT terms

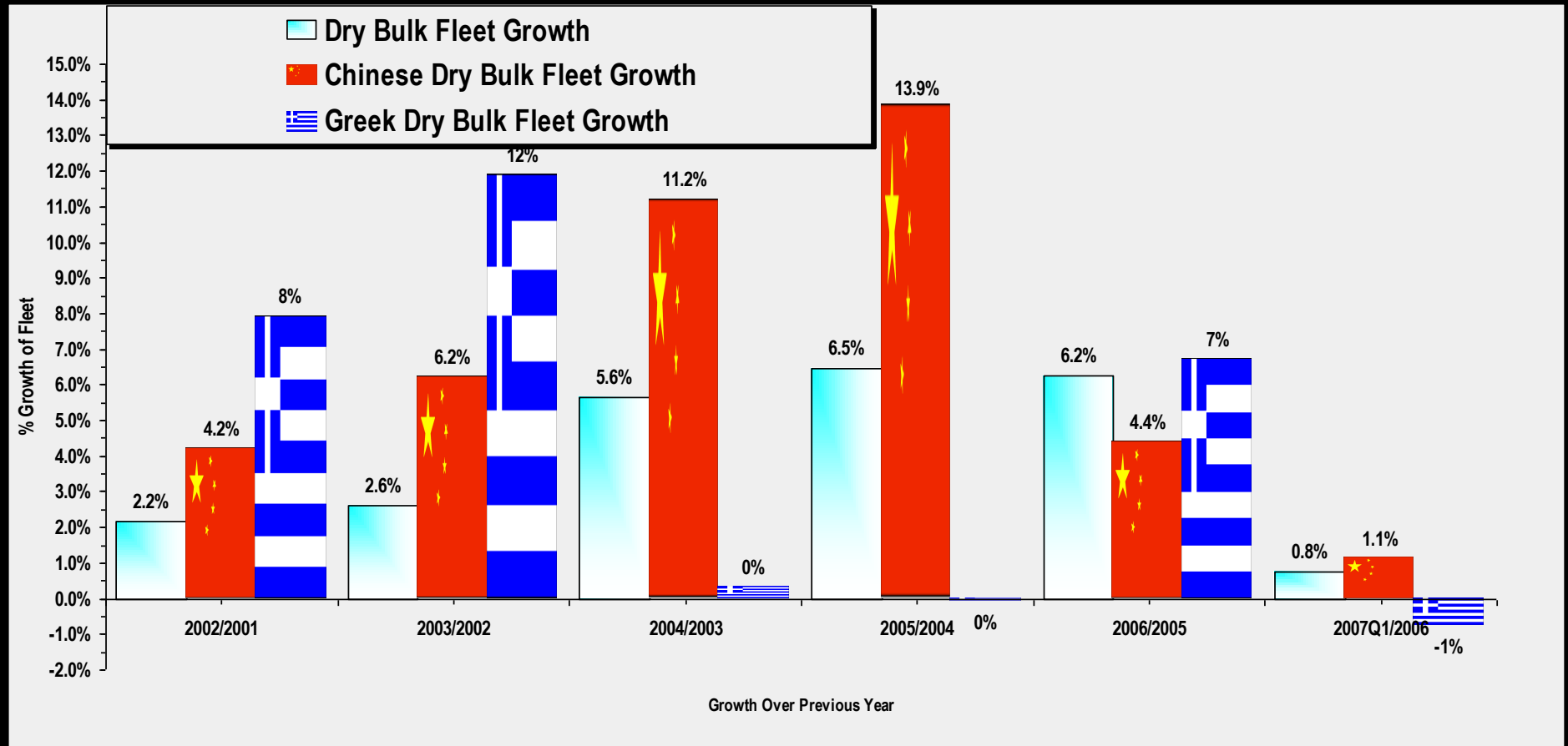


World Container Fleet Greek Container Fleet Chinese Container Fleet
Greek % of Fleet Chinese % of Fleet



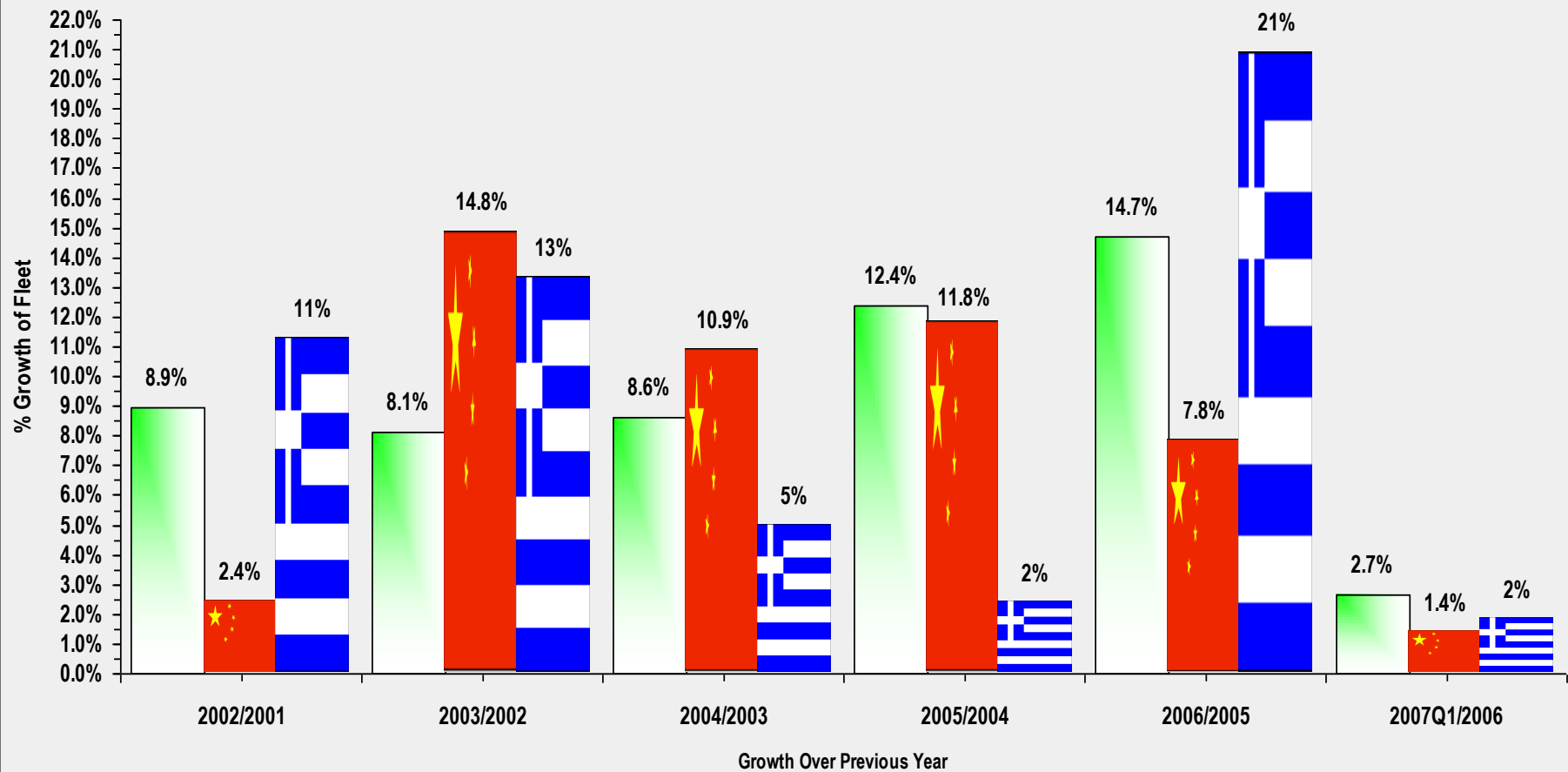


Comparison of Growth of Dry Bulk Fleet between the Chinese Fleet and the Greek Fleet in DWT terms





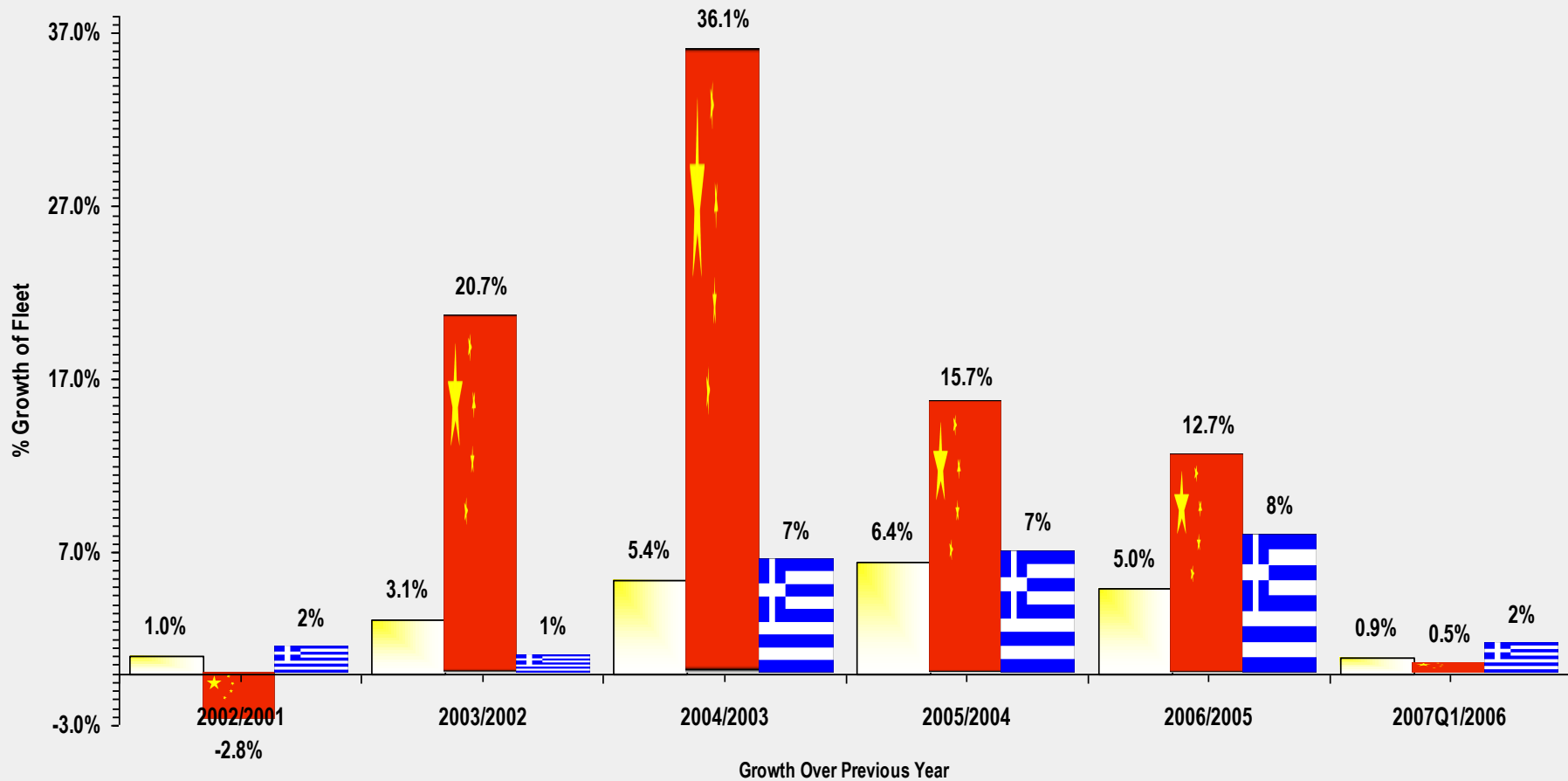
Comparison of Growth of Container Fleet between the Chinese Fleet and the Greek Fleet in DWT terms



Container Fleet Growth Chinese Container Fleet Growth Greek Container Fleet Growth



Comparison of Growth of Tanker Fleet between the Chinese Fleet and the Greek Fleet in DWT terms



World Tankers Fleet Growth Chinese Tanker Fleet Growth Greek Tanker Fleet Growth



Factors underlying the growth and / or limitations to the development of the Greek and Chinese fleets

The relative **advantages** of the Greek fleet are:

- **Access to finance**
- **Access to capital**
- **Tradition and experience**
- **Organizational, technical and operating skills**
 - **Commitment / dedication**
 - **Timing skills**
 - **Liquidity**
- **Qualitative and age improvements**





Factors underlying the growth and / or limitations to the development of the Greek and Chinese fleets

The relative **disadvantages** of the Greek fleet are:

- **No hinterland, i.e. cross traders**
- **Vulnerable to protectionist policies**
 - **Scarcity of Greek crews**
 - **Aging of experienced shore staff**
 - **Unsupportive state policy, unions**
- **Unsupportive banks' policies towards new entrants / small owners**





Factors underlying the growth and / or limitations to the development of the Greek and Chinese fleets

The relative **advantages** of the Chinese fleet are:

- **Enormous hinterland with vast transportation requirements**
 - **Enormous hinterland growth**
- **Supportive state policy, unions, regulations, crewing**
 - **Availability of Chinese crews**
- **Local banks support to small owners**
 - **Commitment to expansion**

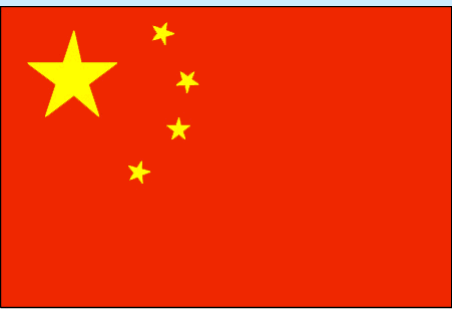




Factors underlying the growth and / or limitations to the development of the Greek and Chinese fleets

The relative **disadvantages** of the Chinese fleet are:

- **Limited access to international banks and capital (especially for small to medium owners)**
 - **Limited tradition / experience**
- **Limited organization, technical and operating skills**
 - **Untested by a shipping slump**
 - **Higher leverage?**
 - **Lack of liquidity**





Is the development of the Chinese and Greek fleets mutually exclusive?

- a. Chinese best placed to exploit fast rising Chinese demand due to local presence, same culture, opportunities and preference.**
- b. China's growth will fuel the further growth both in number and relative terms of the growth fleet.**
- c. Chinese growth and further potential will attract banks and international capital to China and to support the Chinese fleet expansion.**



Is the development of the Chinese and Greek fleets mutually exclusive?

HOWEVER

- a. Non-Chinese are already participating in the opportunities that Chinese growth provides.**
- b. Greeks have been amongst the first to develop closer local relations with importers, exporters and charterers.**
- c. Greeks are developing strong lines to Chinese newbuilding yards as a result of the high order boom.**



Is the development of the Chinese and Greek fleets mutually exclusive?

HOWEVER

- d. A number of Greek shipping companies have already set up or are planning to develop a local presence.**
- e. Joint venture opportunities have already begun to develop, especially in ownership / chartering**
- f. The concentration by Greek owners towards larger and modern fleets has rendered Greeks more competitive in competing for Chinese business.**



Is the development of the Chinese and Greek fleets mutually exclusive?

HOWEVER

- g. Greece / Greek owners are not politically sensitive to China / Chinese owners**

- h. Greeks are respected for their experience, abilities and maritime skills.**



Is the development of the Chinese and Greek fleets mutually exclusive?

THEREFORE

- **Whereas Chinese have a relative advantage in exploiting Chinese / regional growth, Greeks are well placed to also profit from China's growth.**
- **The development of the Chinese and Greek fleets, therefore, are not necessarily mutually exclusive.**



Expectations and Prospects for the next decade

- a. China's growth appears inexhaustible and certainly good for a considerable period of time.**
- b. The Chinese fleet is expected to grow at a faster pace than all other shipping nations, including Greece.**
- c. The Greek fleet will find it hard to maintain its current market share, as the world fleet expands, but will nevertheless remain a strong cross trader of rising quality.**
- d. China will attract the support of lots of international banking and capital industries, which will finance the further growth of its fleet.**



Expectations and Prospects for the next decade

- e. Chinese owners / charterers remain untested by a market slump.**
- f. Greeks retain significant advantages and skill, which will support their ability to exploit Chinese growth opportunities.**
- g. Greek owners are very adaptive to changing world conditions.**
- h. The development of Greek controlled public companies will assist them in developing successful strategies in relation to China and Chinese opportunities.**