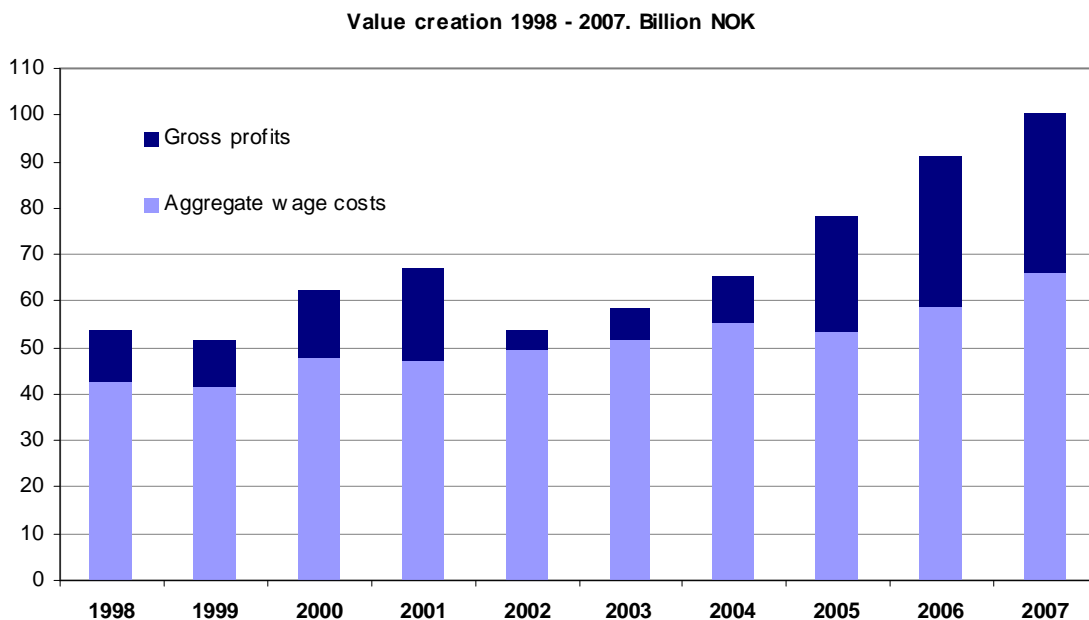


## Value creation in the Norwegian maritime cluster

### Value creation exceeds 100 billion NOK for the first time

The maritime cluster includes ship owners, yards, equipment producers and maritime services. The value creation in the Norwegian maritime industry almost doubled from 54 billion NOK in 2002 to 101 billion NOK in 2007. It was particularly the strong growth in profitability that contributed to this development, as can be seen from figure 1. Whereas the industry's total salary costs increased by 35 percent from 2002 to 2007, the profitability doubled almost 7-fold in the same period. Profitability contributed with one third of the value creation over the last three years, while the share was only 12 percent in previous years. This is a natural consequence of cyclical changes in the industry: In good times the profitability rate will always grow *faster* than the salary costs, and in bad times they will *fall* more than the salary costs do.

The Norwegian-registered ship owners had a collected turnover of 132 billion NOK, and the equipment producers' turnover nearly exceeded 100 billion NOK. Figure 1 shows the gathered value creation in the ten-year period from 1998 to 2007. The modest growth in activity may be explained by an increase in outsourcing, especially when it comes to operational activities, but also in connection with the companies' main office functions moving abroad. In the same period, 2002-2006, the salary costs in Norwegian businesses grew by a total of 47 percent, in other words considerably more than in the maritime industry. The profitability in the Norwegian business sector doubled almost three-fold in the four-year period, but this is modest compared to the six-fold doubling of profitability that maritime companies experienced.



## Maritime equipment and services had the fastest growth



2007 was the year of the maritime industry. The equipment suppliers' value creation grew by 27 percent that year, and since 2004 the value creation grew by 140 percent. This can be seen by looking at figure 2 below. Foreign-owned technology- and equipment suppliers like National Oilwell, Rolls Royce Marine and FMC Kongsberg Subsea have made considerable contributions to that growth. The equipment producers achieved a collected profit margin of 9, 1 percent in 2007. One has to go back to 1997 to find a year with a higher growth in profitability, but at that time the activity level was considerably lower than it is today.

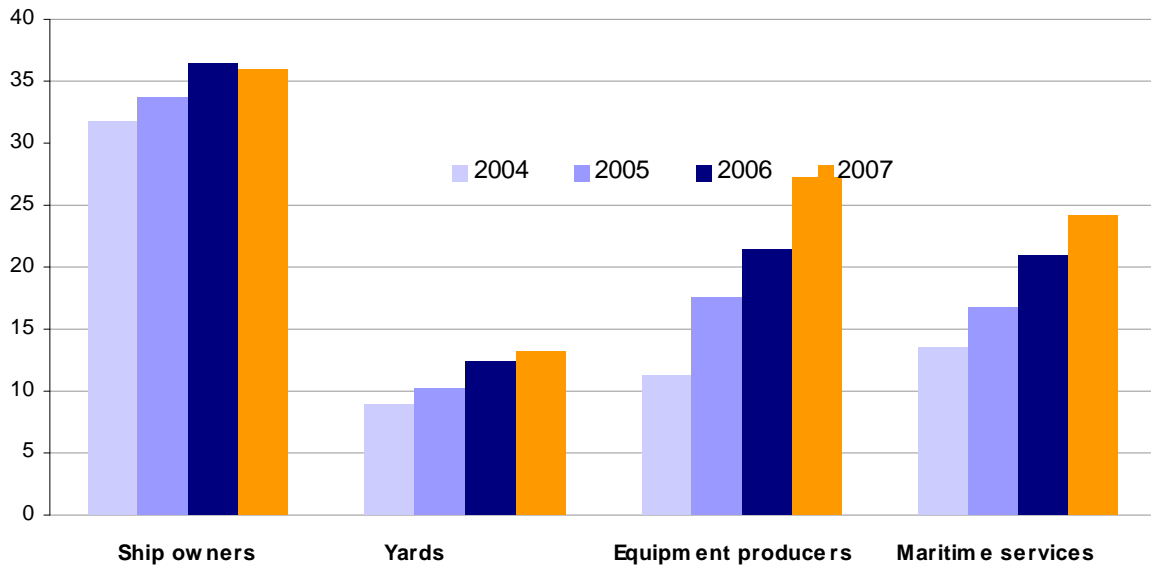
The shipyards also increased their value creation every year from 2002, but the growth was far more modest, only 48 percent. On the other hand, the shipyards' turnover growth was double the level of the value creation, which indicated that Norwegian shipyards have increased their degree of outsourcing over the last years. Instead of hiring more people, many shipyards have chosen to sign contracts with recruitment companies. This has contributed to lessen the growth in salary costs, and thereby also the internal value creation. The shipyards have only to a smaller degree been able to transfer the high activity level to increased profitability. Their gathered profit margin was 3, 2 percent in 2007, compared to 3, 9 percent in 2006. In the critical year 2003 the profit margins were actually higher than in 2007.

Norwegian ship owners experienced a slight decrease in value creation in 2007 compared with 2006. This is surprising considering that shipping, rig- and offshore markets were very good in 2007. The cause of this is probably that an increasing number of ship owners choose to move their business outside Norway. If one looks at the development of the Norwegian-controlled fleet, one gets the same impression. While the growth of the international fleet has ranged from 7 to 8 percent over the last years, the size of the Norwegian-controlled fleet has remained highly static over the last years. The profitability amongst the ship owners has been very good. Over the last three years their profit margins have exceeded 12 percent.

Maritime services; meaning financing, insurance, maritime law, classification, brokering and port services, have continued their strong growth over the last years. Since 2004 the value creation has increased by almost 80 percent. From 2006 to 2007 the growth was 15 percent. The profitability was also high, with profit margins hovering above 12 percent.

In 2007 the ship owners contributed with 36 percent of the value creation in maritime industries. The share had fallen from 48 percent in 2004. The relative size of the Ship owners' contribution has varied a lot also earlier. In 1999 the share was only 3, 2 percent. There was an important difference from earlier however. Since the shipping industry is capital intensive and cyclical, both the activity level as well as the profitability varies more in this part of maritime industries than in the other sectors. In previous periods when the ship owners' share of the industry's value creation has fallen, there have always been recessions. In this case however, the ship owners' share fell in a situation when the markets were strong and the profitability was good.

Value creation from 2004 to 2007 in the maritime cluster. Billion NOK



### **The maritime industry is the biggest industry in Norway**

The maritime industry has over the last years been the biggest industry in Norway, measured in value creation, but was in 2006 surpassed by the financial service industry. This was due to the extraordinary results for several of the finance companies, especially for the bank DnB NOR. The oil-and gas industry is clearly the biggest in Norway, but these numbers also include the resource interest which goes to the state through a special tax. This makes comparisons with other industries somewhat misleading.

In 2007 the maritime industry contributed with almost 11 percent of all value creation in the Norwegian business sector. Maritime services alone were bigger than the entire seafood sector, and maritime equipment was about the size of the energy-demanding industries.

*Photo: Rolls-Royce*

*Photo: Rolls-Royce*

### **The number of employees is approaching 100.000 again**

In 2007 there were about 97.000 employees in the Norwegian maritime industry. After a falling trend in employment since the end of the 1990s, there was a considerable increase in employment from 2005. The number of employees was relatively evenly distributed between the four main groups. The Ship owners had 29 percent, the equipment producers had 26 percent, the service providers had 24 percent, and the shipyards had 21 percent. The number of people in employment at the shipyards was considerably higher, because the shipyards hired labor, for example from Romania, through recruitment companies. On the other hand the equipment producers would have had considerably higher total employment if one included employees in daughter companies or in sub-suppliers outside Norway.



### **The industry's productivity is high**

The maritime industry has to an increasing degree become knowledge-based. Several processes contribute to this development:

- Maritime industries, ship owners, equipment producers, shipyards and services, play a central role in the advanced technology development in the oil- and gas industry. Examples include special ships, positioning systems and navigation systems.
- Shipping is to an increasing degree becoming part of several international logistical systems, which require advanced databases, surveillance systems and communication forms. Norwegian examples of this include Wilhelm Wilhelmsen, Kongsberg Maritime and Det Norske Veritas which are all playing an important role in this development.
- Increasing requirements are being set for security and environment, which leads to continuous innovation and technological development.

The high level of competency in the maritime industry can be seen from the companies' salary costs per employee. These are expressions of the productivity of the labour force and represent a minimum level for the employees' average contribution to the companies' value creation. If salary costs per employee are higher than the employees' contribution to value creation the companies will lose money and eventually disappear from the markets in the long run.

The average salary level in the maritime industry is almost 50 percent higher than in an average Norwegian company. This should be seen as a sign that the productivity level is considerably higher in the maritime industry than it is in most other industries in Norway.

Before one concludes that the Norwegian maritime industry has increased its productivity and thereby the international competitiveness over the last years, one should make a remark: In the short term it is hard to know whether an increase in salary costs and profitability result per employee is the result of an internal rise in productivity (reduced costs or increased customer value) or of the market- and competition environment that is beyond the companies' control.

In other words one could assume that the primary cause of growth in value creation per employee is due to the increased market prices that partly result in a higher salary growth, for example because there is a lack of relevant competence. If this is the case, meaning that there hasn't been an underlying growth in productivity, a fall in market prices will result in competitiveness for the companies. This shows how important it is to take longer time periods into account when one is calculating productivity levels, and to consider changes in costs when estimating changes in productivity.

### **The Stavanger region is the biggest maritime region**

The maritime industry in Norway is divided into nine regions. The division follows the areas of responsibility of the regional Maritime Forums (with the exception of BTV and Agder which have now been brought together).

1. The Oslo area: Oslo, Akershus, Østfold, Oppland and Hedmark
2. BTV: Buskerud, Telemark and Vestfold
3. Agder: Eastern and Western Agder
4. The Stavanger region: The Stavanger region and Rogaland south of the Bokna fjord
5. Haugaland/Sunnhordland: The Haugesund area and Rogaland north of the Bokna fjord
6. The Bergen region: Hordaland and Sogn and Fjordane – Hordaland except for Sunnhordland but with Sogn and Fjordane
7. Northwest: Møre and Romsdal
8. Mid-Norway: Both Southern and Northern Trøndelag
9. Northern Norway: Nordland, Troms and Finnmark

Numbers from 2007 showed that it was the Stavanger Region which had the highest value creation that year, closely followed by Oslo/Akershus. The North western region passed Hordaland and Sogn and Fjordane. Northern Norway and Mid-Norway became the two smallest regions in terms of value creation.



*Photo: Acergy*

In all regions the profitability results contributed to a relatively high share of the value creation. The highest share could be found along the coastal line from Agder to Møre and Romsdal. This is probably due to very strong offshore markets in 2007.

### **Haugaland/Sunnhordland had the fastest growth**

We have looked at the growth in value creation in the regional maritime industries over a ten-year long period, from 1998 to 2007 and over a five-year long period from 2002 to 2007. Between 2002 and 2007 the two fastest growing regions were Haugaland/Sunnhordland and Agder. Also Oslo/Akershus could report a strong growth over that five-year period. This was due to the fact that 2002 was a very bad year for the maritime industry in the Oslo area.

The North western region had the strongest growth in the ten-year period. This was also true for the BTV region. Both of these managed well in the crisis year of 2002, which evens out the growth courses compared with regions such as Oslo/Akershus and Agder. When only looking growth in 2007; Trøndelag, Agder and the Northwest reported the strongest results, with 39, 26 and 26 percent respectively.

Northern Norway experienced an overall decline over the ten-year period, and the relative decline continued from 2006 to 2007. The growth in value creation was only 3 percent, lowest of all the regions. More surprisingly was still the fact that Hordaland including Sogn and Fjordane had a small growth. This is because there was a considerable downturn in registered value creation amongst the ship owners in the region, while the three other groupings had a growth on line with the average level. The reduction amongst the ship owners could be due to the fact that several of the ship owners had moved their businesses to other countries.

### **The regional impact was strongest in Haugaland/Sunnhordland**

The maritime industry is a big industry with a considerable impact in all the Norwegian regions. This is supported by numbers showing that 10 percent of all salary paid to employees in the Norwegian corporate sector, is paid to employees in maritime companies. This is the country average. In some regions the economic significance has been far greater. About every third NOK paid in salary in the Northwest and in Haugaland/Sunnhordland was paid to maritime personnel in 2007.



*Photo: PO. Dybvik*

### **The biggest companies in the industry**

There were 30 companies with a profitability of more than 2 billion NOK in 2007. There were an additional 27 companies with a profitability of more than 1 billion. The number of medium-sized companies was also high. About 400 companies had between 100 million and 1 billion in profitability.

Source: *Menon Business Economics*

