TOC Europe

David Appleton
President
Europe
Neptune Orient Lines

June 14, 2005
Antwerp

Slide 1: Counting the Cost of Congestion:

1.1 Ladies and Gentlemen: Thank you for inviting me back to speak at this years TOC. It hardly seems possible, that a whole year has passed since the last conference in Barcelona. It's a great privilege to be speaking again this year, in the wonderful city of Antwerp, where I spent a part of my early career in shipping.

1.2 Last year in Barcelona, I took the opportunity to highlight the problem of congestion in the supply chain, which was only then becoming recognised as a long term and serious problem.

1.3 Since then, much attention has been focused on this issue. Indeed there have been conferences just to address congestion.

1.4 Our senior executives, including the NOL President, David Lim and APL CEO Ron Widdows, have been actively highlighting the problem. In North America, they have jointly engaged customers and government officials in both identifying the issues and seeking possible solutions.

Slide 2: A Fundamental Approach

2.1 Congestion is a problem that can impact the whole supply chain. However today, I propose to focus largely on one part of that chain – North European ports.

2.2 We will look briefly at some cost implications of the current situation. We will also examine how we may improve things in the future. In this regard, there are important lessons to be learned from recent experience.

2.3 Firstly, I'll be presenting some original research into European port development, which we commissioned, and which has not previously been released. In looking at the costs of port development in our region, we have decided to focus on the impact of the planning process – on both time and money.

2.4 I have chosen the planning aspect because it's a fundamental part of port development. Some ventures are killed off completely before the plans even come to fruition. The global transport industry must embrace this problem if we are to improve the infrastructure and make our services more efficient in the future.

2.4 However, efficient planning, involves effective forecasting. Not only forecasting of demand for container capacity, but also the nature of traffic flows, and the factors that influence our ability to meet these demands.

2.5 Secondly, I hope to demonstrate how planning for port capacity fits with what we know…. or what we think we know…. about demand growth.

2.6 Of course, efficient planning also necessitates consultation with all interested parties. This is something else I will address.

2.7 Finally I want to mention some initiatives I believe will help speed up the process both at the planning stage and as those plans are put into practice.

2.8 I don't intend to repeat what others have previously outlined, nor pre-empt what speakers at this Conference may address. I will therefore avoid spending time on the recent effects of congestion. These are well known to everybody.

2.9 Instead, I want to give just a brief overview of the issues, in order to frame my thoughts on how we should be tackling the problem.

Slide 3: The Nature of Port Congestion

3.1 As part of the research we commissioned, we asked Drewry Shipping Consultants to measure the degree of terminal utilisation today, in order to get an idea of the extent of congestion. This is what they found.

3.2 These figures are averaged out over the year. And we all know that peaks and troughs in utilisation occur during that time frame. Whilst it is possible to achieve over 100% of a port's nominal capacity on occasions, Drewry believes that anything over 85% will result in delays and will impact the ability to cope with spikes in demand.

3.3 As you can see, according to this research, many of North Europe's major ports were at or above the 90% level during 2004.

3.4 What we as carriers experience is that when these levels are exceeded, there is a loss of terminal flexibility, which we once took for granted. What we also know is that our own ability to maintain schedule integrity can be a major contributor to the problem. This is very much cause and effect. A congestion delay in one port leads to a missed window in the next, and the whole problem is compounded.

3.5 You will also see that smaller ports such as Zeebrugge, Dunkirk and Thamesport have much lower utilisations. It's a feature of recent port usage that smaller facilities, which might help relieve some of the congestion, have been to some extent overlooked by carriers.

3.6 I actually believe that this is as much to do with tradition and commercial risk avoidance as locality and competitiveness. Whilst attitudes will change in this regard, we must bear in mind the growing constraints of ever increasing vessel size.

3.7 I'll come back to this, because it has important implications for what needs to be done to smooth utilisation and keep freight moving through the supply chain.

3.8 Just as an aside – we know that increased productivity at the berth, the deployment of new technology, and operational process refinements can be harnessed to improve the situation. I am sure others will address these in more detail.

Slide 4: Congestion Cost Examples

4.1 Let’s take a few moments to review some examples of the additional costs created by recent and current congestion. The picture is complex.

4.2 Each of the players in our industry has had to bear extra cost as a result of this problem. Here are just a few examples.

4.3 The list is not exhaustive. It merely highlights some of the very obvious costs, which are made worse by delays at choke points such as a port terminal.

- *Carriers have suffered – vessel delays, extra fuel costs, missed feeders, storage charges*

- *Terminals have had to pay for – extra manpower, yard congestion, re-handling .*

- *Hauliers have endured – unreasonable waiting times and resultant loss of business*

- *Shippers have experienced – longer transits, delayed inventory, and longer lead times*

4.4 The list goes on, and I am sure others will elaborate on this later.

4.5 It should be emphasised, that these costs relate only to the operation of the current supply chain. Not to the question of investment costs.

4.6 So let’s return now to the matter of congestion specifically at the port, and the investment required to alleviate this situation.

4.7 As previously stated, we commissioned research that focuses on one significant area of investment; that of the planning stage of terminal development.

4.8 These planning processes have been put in place by government bodies, quite rightly, to ensure that environmental and other impacts are properly reviewed.
.
4.9 But the planning process comes at a significant cost, in both time and money.

Slide 5: Cost of the Planning Process ($)

5.1 This slide highlights the financial cost of the approval process, which is required to take terminal projects to the stage where construction can begin.

5.2 I must emphasise that these are only estimates. But estimates created by knowledgeable and experienced researchers at Drewry’s.

5.3 You may find them surprising. I certainly did.

5.4 The first column shows the estimated total cost of the planning process. They include the cost of public inquiries; official planning submissions; administration;

management time and the inevitable legal fees. And they represent both commercial as well as public money. The second column shows the estimated total project cost.

5.5 So it's not just the industry that sustains these costs, but also the public purse. They include both local and national government funds, as well as the funds of various environmental groups.

5.6 These are estimates of what has been spent so far and do not reflect what may yet be paid in the future. A number of these projects still have a long way to go before they gain approval. In some cases, the plans will never come to fruition. With Dibden Bay in Southampton of course, the result was a permanent rejection of the plan, at an estimated cost of 98 million Euros!!

5.7 To date, according to this research; over 540 million Euros have been spent on the planning process for extending facilities at North Europe ports. These plans would have yielded a capacity, that five years ago the industry felt it would require by today.

5.8 This is sufficient money to pay for the construction cost of an entire terminal of about 1.5 million teu…. a project the size of Bathside Bay in the UK, for example.

5.9 With any cost estimate, the final numbers can always be debated, but few people looking at this would have any doubt that we are talking about massive expenditure.

5.10 In cases where the approval process is frustrated or even curtailed, some or all of this investment can be lost. Not surprisingly, contemplating a new port development cannot be for the faint hearted.

Slide 6: Cost of the Planning Process (Time)

6.1 For those who remain unconvinced of the financial argument, let us turn to the impact on timing for port development and new terminal capacity.

6.2 Given where we are today, this is probably an even more important consideration. I'll come back to future demand a little later.

6.3 Drewry has tracked the history of major port development projects in North Europe. The first column of this table shows the original intended start date of operations. The second column shows a realistic estimate of when each project is now likely to come on stream. Can anyone spot the difference?

6.4 The degree of frustration can best be summed up, when you calculate the average number of years that projects have been delayed. It is over 4 years!

6.5 I must point out that not all the projects have suffered delays, but where they do exist, they are significant.

6.6 Clearly, port authorities and terminal operators in Europe, saw the need for increased capacity several years ago, although not to the extent that we now recognise.

6.7 Action was taken to provide for the future, but because of planning process delays, the capacity has not come on stream at the time required.

6.8 Let me be clear. We believe the approval process is essential. And that all stakeholders need to be actively involved as the congestion issue is addressed.

6.9 So if there is a lesson to be learned here, it is this. Our industry…and I mean carriers, exporters, importers and all related service providers - must make our case for additional capacity more clear to the many interested parties. We cannot simply expect the port community to carry this burden alone.

6.10 We must understand that we are making demands on the environment, on finances and on other public resources that need to be explained and justified.

6.11 We must make it clear to local communities, the general public and their representatives that what we seek is reasonable. And we must demonstrate that these projects are well thought out and critical to economic growth, not only in the local region, but throughout Europe and internationally.

Slide 7: Cost of the Planning Process (Capacity)

7.1 So what is the effect on today's available capacity of these planning delays?

7.2 The additional capacity that these projects would have provided when first proposed, was nearly 38 million teu. This is roughly the total amount available today. In other words it was planned to double the region's container handling by 2010.

7.3 Of course, this additional capacity would have been phased in over several years. However, without the planning delays, nearly one third of this capacity - more than 11 million teu - would have been available to us by 2005.

7.4 That is actually 30% more capacity than we are able to call upon today.

7.5 Therefore, instead of the overall average utilisation of 87% shown earlier, we would now be experiencing around 68%. And those ports that are operating at 95% or above would be in a far more manageable situation.

7.6 The implications of this research are therefore quite clear.
Many of the costs of congestion that we have outlined, could have been diminished or eliminated if there had been a more efficient planning process.

Slide 8: Forecasting the Future

8.1 So what of the future? I hope to suggest ways of improving this planning process in order to avoid future delays. But first we have to help others understand what is going on in our business. What are our best forecasts for future demand? Let me attempt to frame the issue.

8.2 The effect of globalised manufacturing has been increased complexity in the supply chain. This means more than simply moving factories to China.

8.3 Today, manufacturers need to co-ordinate the delivery of materials and components, often from multiple sources throughout Asia and elsewhere, as well as the delivery of finished goods.

8.4 This global sourcing map must be familiar to all of you. There will of course be fluctuations in origins and destinations as globalisation evolves.

8.5 However, the complexity of supply chains will not diminish, and the role of container shipping will remain pivotal. Therefore the importance of container ports as a component of these supply chains will not decline. In other words, barring huge political intervention or protectionism, this issue will not go away.

Slide 9: Forecasting the Future: Deloitte's View.

9.1 It's not just the shipping and logistics industry that recognises this problem. Let me quote some comments about future world trade by a foremost management consultant, based on 800 companies, with a global spend of 1 trillion dollars.

9.2 " Over the next three years, 55% of North American manufacturers and 39% of Western European manufacturers plan to enter or expand their sourcing in China".

9.3 "Road, air and rail transportation systems have trouble keeping up with the requirements for a 21st century supply chain."

… So this is not just a port and shipping problem.

9.4 "Manufacturers that underestimate the strain on the global network and have limited insight into the true cost of products sold can jeopardise their investments and growth plans."

… Therefore, explaining these problems to our customers should not be difficult. This and other research simply continues to endorse what we already know in our industry.

Slide 10: Forecasting the Future: Global Container Trade Growth.

10.1 Our friends at Drewry now demonstrate how they think this growth in trade will affect container carryings.

10.2 I want to emphasise that the industry does not predict a continuation of the huge growth we have seen over the last two years. However, the increase will be steady.

10.3 This graph represents an annual growth rate of more than 10% in 2005 and 2006. It is then expected to tail off very gradually to a steadier rate of between 5 and 6% by the end of the decade.

10.4 If recent experience is anything to go by, indications are that future demand estimates could well be conservative.

Slide 11: Forecasting the Future: Imports from Asia

11.1 The next two slides are included to give an impression of how China and the rest of Asia are fueling these growth rates. Here are the imports from Asia to Europe over the last few years.

11.2 We see a total of around 5 million teu from Asia to Europe in the year 2002. This had increased by 50% to 7.5 million teu in 2004.

11.3 Note that China now accounts for nearly half that total as against a third just five years ago.

Slide 12: Forecasting the Future: Asian Export Growth

12.1 Looking forward, the export market from Asia to the rest of the world is set to reach some 44 million teus by next year and 48 million by 2007. By this time, more than half will originate in China.

Slide 13: Forecasting the Future: Demand for European Port Capacity.

13.1 But what do these forecast levels mean in terms of demand for port capacity in North Europe?

13.2 The 2004 demand figure of just over 30 million teus is what we have based our port utilisation rates on. We have seen earlier, that this level of demand currently leads to 95% utilisation in some of our major terminals.

13.3 You can see that based upon these growth rates, by 2010 we will need 50% more terminal capacity than the North Europe ports currently provide.

Slide 14: Forecasting the Future: Meeting the Demand

14.1 So here is Drewry's estimate of how that demand will be met. These capacity figures are based on both confirmed terminal expansion and new development projects - that is, those that have planning approval at the moment.

14.2 There is a slight improvement from next year onwards but it's rather static and availability will remain quite tight. There is even a slight deterioration in the picture, which is predicted five years from now.

Slide 15: Forecasting the Future: A Better Scenario

15.1 The blue line on this graph shows the utilisation rates that are estimated with confirmed capacity improvements.

15.2 The red line shows how the situation is vastly improved if we add in the capacity that is yet to gain planning consent.

15.3 But remember the 38m teu expansion plans originally outlined.

Slide 16: Repeat of earlier slide (Cost of Planning Process)

16.1 With the previous utilisation picture in mind, it's worth reflecting on those plans once more. This is the <u>amount</u> and <u>location</u> of the capacity, which could now be available, or under construction if approval had been granted on time.

Slide 17: USA position, forecasting the future

17.1 By way of comparison, let's look at the US situation. The problems in North America have been very well publicised.

17.2 With demand outpacing capacity up to 2010, this graph shows that the US can expect a bigger problem than Europe.

17.3 It <u>does</u> appear therefore, that because of global manufacturing; current and future consumer demand in the western economies remains on a collision course with infrastructure development.

17.4 To me, this demonstrates how crucial supply chain management will be in the future and how creative solutions will need to be found.

Slide 18: Consultation & Initiatives: Those Involved:

18.1 At the beginning, I suggested that consultation with all interested parties was essential. We need new initiatives to solve our current congestion, and future capacity problems.

18.2 Here is a list of those who should be consulted. As a guide, I would classify the first four categories as 'The Industry' and the bottom three as 'Business and Community Partners'

Slide 19: Consultation & Initiatives (Self Help)

19.1 Firstly how can we, in the Industry, improve our cooperation to improve the efficiency of port capacity we already have?

19.2 Many of you will have seen this list before, but it is worth repeating, especially in the context of this conference, where perhaps, executives from these constituents may initiate some positive discussion.

19.3 Carriers need to talk to their customers about altering the flow of their cargo volumes to avoid congestion peaks. They also need to learn more about their future demand forecasts.

19.4 Alternative or additional port gateways should be discussed.

19.5 Carriers can, and already do, discuss with terminals, more flexible service options, for example berthing at less crowded periods.

19.6 They also evaluate feeder networks and better inland connections to utilize smaller ports. This dialogue becomes more crucial as ships grow bigger and operating flexibility is increasingly challenged.

Slide 20: Consultation & Initiatives (A Concerted Effort)

20.1 Within the port community and in cooperation with both shipping and landside operators there should be a concerted effort to increase the productivity of the supply chain.

20.2 It's not just about the hardware that works the vessels but also the IT systems that organise the terminal. It's about the processes through which boxes are delivered and collected, and the data exchange systems, by which information is relayed between service providers and customers.

20.3 Finally, there must be a real effort by the industry to represent itself in a professional and coherent way to public stakeholders. Clearly, these stakeholders will be impacted directly or indirectly by the congestion problem and the solutions to it.

Slide 21: Consultation & Initiatives (Inclusive Approach)

21.1 By public stakeholders, I mean local and national communities that are in turn represented by governments, associations and pressure groups.

21.2 By engaging actively and effectively with the various stakeholders, approval may be reached more quickly. We may see European ports start to cope better with the development of globalisation: a development which shows no sign of reversing, or even slowing much in the years to come.

21.3 Given the cyclical nature of our industry, it is also vital that the solutions we develop are carried forward, and do not slacken in times when financial returns may be less favourable.

In conclusion:

21.4 This research gives us a useful insight into what's involved in addressing one of the biggest issues facing our industry – and our customers – today.

21.5 This is just one link in an increasingly complex and global network that connects all economies around the world.

21.6 We face a significant challenge; partly as a result of unexpected demands of globalisation, but also because of lack of attention to the planning process.

21.7 Many of the questions posed by this forum 12 months ago still remain unanswered. In the months following last year's conference, yet again we experienced the congestion that had begun to haunt us the year before.

21.8 Since we met last year, and debated the future size of ships, even larger ones have been ordered, bringing with them increasing demands for larger deep-water terminals, and more efficient landside operations.

21.9 During this same period, we have failed to see any meaningful advances in terminal planning approvals. In fact, one very important future development, Maasvlaakte II, has been delayed even further.

21.8 Ladies and gentlemen: Without a far greater sense of urgency; without acceleration of the planning process, which will only come about with real cohesion in our approach, it is evident that we will continue to experience port congestion in North Europe. Unfortunately, hindsight tells us that we cannot rule out further delays. Such delays will, without doubt, continue to obstruct the improvements that we currently need and expect.