Summary of the Study
Rail Liberalisation Index 2004

Comparison of the Market Opening in the Rail Markets of the Member States of the European Union, Switzerland and Norway

A study of the IBM Business Consulting Services in conjunction with

Professor Dr. Dr. Christian Kirchner, Humboldt University, Berlin

This brochure contains a summarised version of the second edition of the study *Rail Liberalisation Index* on the status of the market opening of the European rail markets, which was conducted by IBM Business Consulting Services in cooperation with Prof. Dr. Dr. Christian Kirchner, Humboldt University, Berlin. It provides an overview of the most important findings.

The full version of the study and the annex is available on

www.bahn.de/presse

as from 10 May 2004.

English translation – in cases of doubt,
the original German version shall apply.

Contents

1 Introduction

In view of the enlargement of the European Union on 1 May 2004, the publication of this study presents an updated revision of the Rail Liberalisation Index 2004 (LIB Index 2004). As already with the Rail Liberalisation Index 2002, the new LIB Index was commissioned by Deutsche Bahn AG from IBM Business Consulting Services in conjunction with Professor Dr. Dr. Christian Kirchner, Humboldt University, Berlin.

The study *Rail Liberalisation Index 2004* describes the status of market opening in the European rail markets of the enlarged EU, Norway and Switzerland as of spring 2004.

The liberalisation of the European rail transport markets, that is the markets for rail-bound freight and passenger transport, continues to develop at a slow pace. At the present time, this development is driven largely by reforms which the Member States have implemented on the basis of the new European railway legislation initiated by the European Commission. The European liberalisation process is however still in the initial stage. Consequently, as already in 2002, the focus of the study is on the relative progress, and not the absolute state, of liberalisation for the countries examined in relation to each other. Overall, the rail sector still has a considerable backlog compared with other network industries, such as telecommunications or the energy sector.

In general, it is found that

- many countries, even though they grant documented, non-discriminatory access to the market, in practice do not allow this due to expensive and complex licensing and approval processes. In particular, the approval of rolling stock still represents a considerable market access barrier;
- in many Member States, the structural changes announced over the last two years in essence frequently incorporate existing institutions under a different name;
- the regulatory bodies to be set up are frequently located in the ministries of transport of the Member States without the necessary resources, which is inadequate in regard to the functions to be exercised and the present initial stage of the liberalisation process (it is precisely the initial competition which requires effective and independent regulation);
- countries which have not yet fully implemented the first Railway Infrastructure Package can in practice in some cases offer better market access conditions than those countries which have already reported the implementation of the relevant Directives 2001/12/EC, 2001/13/EC and 2001/14/EC;
- many of the accession States already have lower market access barriers than some of the existing Member States;
- in spite of the distinct trend towards internationalisation observed, the market shares of External RUs[1] remain only marginal;
- only one third of the countries is, in a positive sense, clearly distinguished from the rest of Europe in regard to market access barriers and
- in spite of the still present market access barriers, in the meantime more attempts are seen on the parts of RUs to gain a foothold as newcomers to the rail transport markets.

[1] External RU refers to all RUs with the exception of the (former) state-run railway systems, the so-called incumbents, of the respective home markets, thus e.g. *Fertagus* in Portugal, *Connex* in Sweden or *SBB* in Germany.

Besides updating the data situation the Rail Liberalisation Index in the 2004 edition has also been further developed methodically and conceptually. The further development concerns especially the following aspects:

- On the basis of scientific discussion, a more advanced methodological concept has been used. The Rail Liberalisation Index 2004 aggregates the results of the LEX and ACCESS Indices, while the COM Index is treated separately. In this way, the new study clearly subdivides the accessibility to the rail transport markets from the point of view of new RUs on the one hand and the market development, which is subject to other influences in addition to the liberalisation, on the other hand.
- Compared with the study from the year 2002, in the new version greater consideration is given to the theoretical and methodological background of the liberalisation strategies and the acquisition of liberalisation-relevant data.
- An important development is seen in the extension of the study to the rail markets of the new Member States, as far as rail transport exists in these countries. With 23 EU countries, as well as Norway and Switzerland, the study now includes a total of 25 European countries.
- Based on the experience of 2002, the data has been collected with greater attention to detail in order to better quantify the market access barriers.
- Due to a more extensive survey and response level, the information base is even broader than in 2002.
- For most countries, the present version has succeeded in describing more precisely the differences between market access in passenger and freight transport.

2 Results

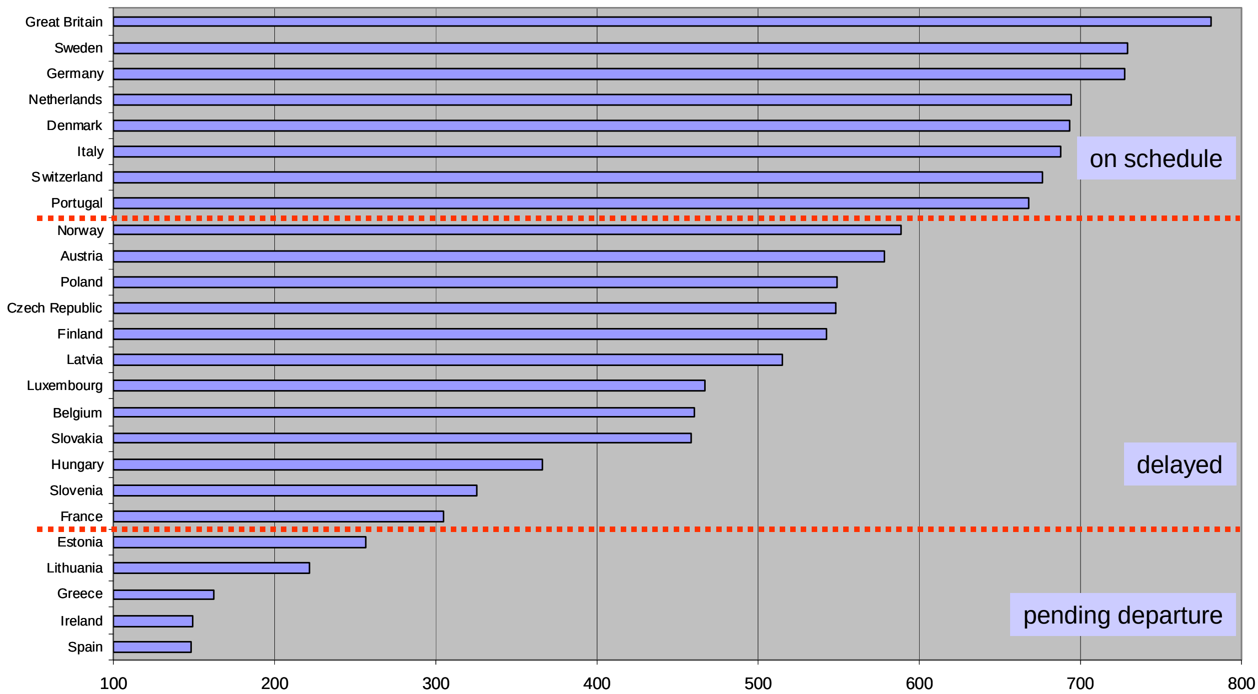
2.1 LIB Index

Overall Results

As in 2002, the current status of opening of the rail transport markets in the 25 examined countries can be allocated to three groups. The classification thresholds, again as in the 2002 LIB Index, are total scores of up to 300, 300 to 600, and more than 600 points.

The first group, comprising Great Britain, Sweden, Germany, the Netherlands, Denmark, Italy, Switzerland and Portugal has made relatively good progress in the market opening process. These countries were awarded 600 or more points in the index calculation. This group, which is in a process of dynamic liberalisation, is accorded the status entitled *on schedule*. These countries have an RU-friendly legislative basis (LEX Index) and fair and objective market access conditions (ACCESS Index). Newcomers to this group are Portugal and Italy. Italy had already obtained above average scores in the LEX and ACCESS Indices in 2002. Portugal has further improved the good LEX values it scored in 2002 and has also improved its scoring in the ACCESS Index. The other countries in the first group confirm their leading roles in the market opening process.

Results of LIB Index 2004



Source: IBM Business Consulting Services and KIRCHNER (2004)

The second group, comprising Norway, Austria, Poland, Czech Republic, Finland, Latvia, Luxembourg, Belgium, Slovakia, Hungary, Slovenia and France, has made substantially less progress than the first group in opening up their rail transport markets. The scores of these countries are between 300 and 599 points on the scale of the Rail Liberalisation Index 2004. This group is accorded the status *delayed.* Newcomers to this group are Luxembourg and most of the new EU Member States.

Luxembourg was promoted to the second group (2002: group *pending departure*) following the improvement in its information policies, (network access conditions), owing to the fair procedures for the approval of rolling stock and the access to operational services.

The existing market barriers are highest in Estonia, Lithuania, Greece, Ireland and Spain, although Estonia is a special case. The scores of these countries are between 100 and 299 points. This last group is accorded the status "*pending departure".* Within this group, Estonia represents a special case in that it has materially privatised its railway system, including infrastructure.

The strengths and weaknesses of the individual countries in the liberalisation process can be indicated by analysing the sub-indices. The following National Summaries and the table of scores in the Annex provide supplementary information in addition to that analysis. On the whole it can be stated that compared with 2002, only Luxembourg, Italy and Portugal were able to improve their group classification. Some of the new Member States, which were not included in the 2002 Index, show better results in terms of market opening than countries which were already analysed in 2002.

Further country information can be found in the full version of the study in the chapter “National Summaries”.

LEX Index

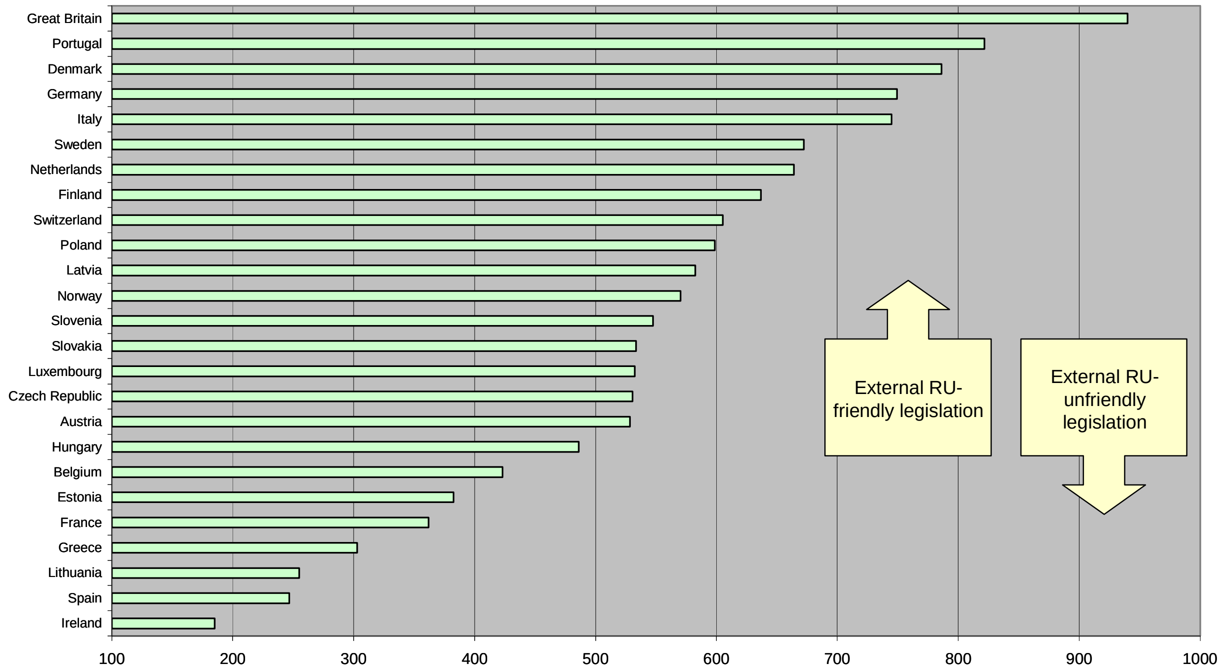
The LEX Index accounts for 30 per cent of the LIB Index total. Within the LEX Index, the subject “Regulation of Market Access” (45 per cent) has the greatest weight, followed by “Powers of the Regulatory Authority” (30 per cent) and “Organisational Structures of the Incumbent*”* (25 per cent).

All the incumbents in Europe have legally codified rights of independence. The degree of vertical and horizontal separation, on the other hand, ranges between no separation and full separation. An assessment of the features of the organisational structures of the incumbent and the relative status of market opening reveals that highly diverse models can achieve similar success in opening up the rail networks. The determinant “Vertical Separation” accounts for 80 per cent of this subject.

Regulation of market access is most RU-friendly in the countries in the first group. Sweden and Switzerland received the lowest scores in this subject complex compared with the other countries in the leading group owing to their relatively restrictive market opening. In Sweden, for example, the incumbent has exclusive rights to passenger train paths which can be operated without subsidies. That share currently amounts to 52 per cent of the total train path kilometres.

The powers of the regulatory authorities are best developed in Germany, Great Britain, Portugal and Austria. These countries have adequate railway-specific regulatory bodies which can deal with emergent competition in a fair and objective manner. Portugal and Austria have the least experience of competition on rail (cf. COM Index). Although some countries claim to have regulatory bodies as defined in Directive 2001/14/EC, in terms of their powers and authorities, they cannot be compared with those of the above-mentioned countries. An example of this is Italy. In some of the other countries, on the other hand, the powers and authorities are currently divided amongst various institutions. Examples are Denmark and Switzerland. The German Federal Railway Office (Eisenbahn-Bundesamt - EBA) and the British Office of the Rail Regulator (ORR) can currently be regarded as the European benchmarks in terms of the regulation of competition.

Results of LEX Index 2004



Source: IBM Business Consulting Services and KIRCHNER (2004)

Poland, Slovenia, Latvia and Finland are well placed in the LEX Index in relation to the overall results. These countries have above-average scores for *law in the books*, but then lose ground in the overall LIB Index owing to the relatively low scores in the Index ACCESS (cf. next chapter). Poland, for example, has granted the incumbent PKP grandfather rights.

The following fundamental principle applies: the higher the position a country achieves in the LEX sub-index, the more RU-friendly its legislative basis.

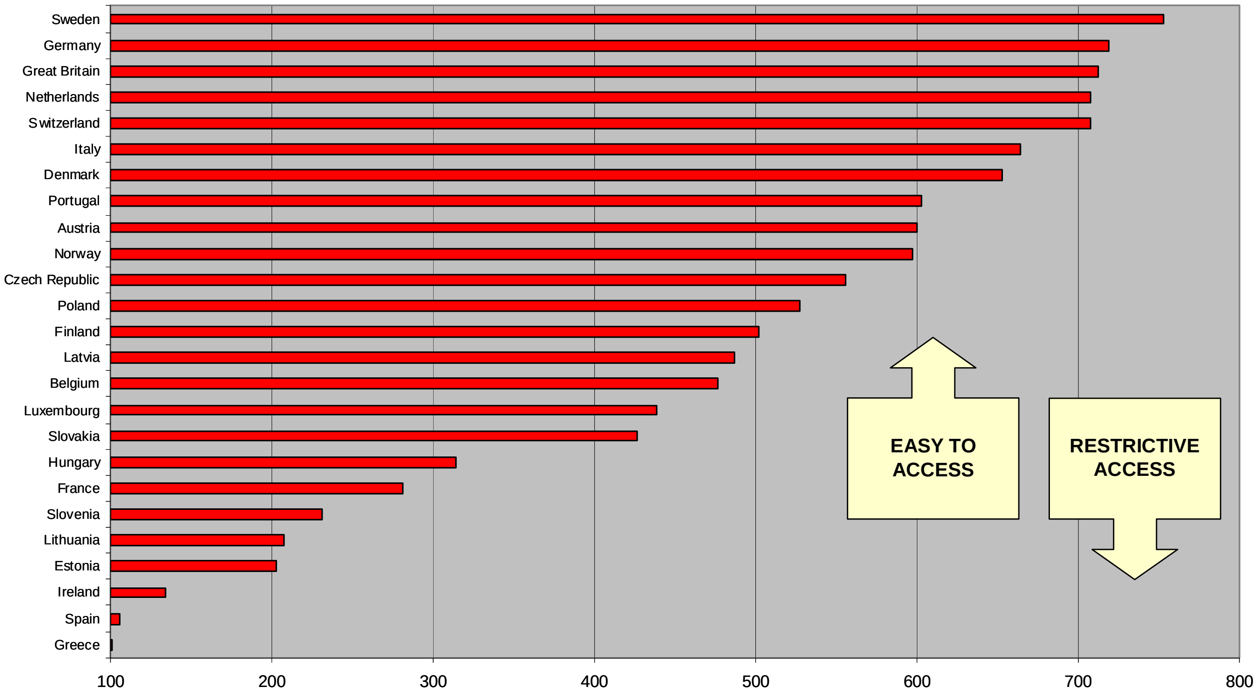
ACCESS Index

The ACCESS Index is weighted at 70 per cent of the overall Index. In the analysis of those access barriers which play an important role in practice, the *law in action*, the countries differ more strongly than in the LEX Index. Again, the principle applies that the higher a country is positioned, the lower its barriers to market entry. As in the overall Index, Sweden, Germany and Great Britain lead this field.

The willingness of a country to provide information, which accounts for 5 per cent of the sub-index ACCESS, is a first fundamental indicator of the openness of the country. Nevertheless, there are some countries which supply highly comprehensive information, but still have a relatively low degree of market opening. An example of this is Slovakia, which provides its network statement in several languages. Switzerland is the European leader in terms of providing of personal and impersonal information.

Administrative barriers such as licence issue, safety certificate and approval of rolling stock make up 20 per cent of the ACCESS Index. In this sector, there are occasionally strong differences between the legal specifications and the empirical values experienced by External RUs. The most objective licensing processes can be found in the countries in the first group. A noticeable exception in that respect is Luxembourg, which has one of the most transparent processes in Europe for the approval of rolling stock.

Results of ACCESS Index 2004



Source: IBM Business Consulting Services and KIRCHNER (2004)

Operational barriers such as train path access conditions, train path prices and access to other operational facilities, which are given the greatest weighting at 50 per cent of the ACCESS Index, are also lowest in the countries in the first group of the overall Index. Exceptions, as in the above-mentioned example of Luxembourg, are Finland and Belgium. Both these countries have exceptionally low operational barriers, but nevertheless have a practically closed market for domestic competitors and thus no relevant experience in the provision of services to External RUs.

The last subject area of the ACCESS Index analyses the level of the de facto accessible national market in 2003 in relation to the stated market volume (25 per cent of the sub-index). In contrast to other subject areas of the sub-index, this revealed immense differences between the individual market segments. Whereas all countries in the first group have open access for the domestic rail freight market, only Germany and Italy have also chosen this access regime for the long-distance passenger market.

In Germany new contracts were awarded for approx. 2 per cent of the total train kilometres in short-distance passenger transport in 2003. In Great Britain, for example in Kent and Scotland, new franchises were awarded for passenger transport in 2003.

In many countries it was not possible to identify any transport services at all in the passenger transport segment which were awarded on a competitive basis in 2003. Italy and Norway, for example, are planning to conduct the first-ever tender procedures for short-distance passenger transport in 2004.

Special Subject: Approval of Rolling Stock

While licence issue is meanwhile practically no longer a bureaucratic market entry barrier in Europe, not least because of the harmonisation based on Community laws, safety certificates and approval of rolling stock (homologation) frequently involve processes which in some cases drag on for years and which can be very expensive. The approval of rolling stock is one of the most time-consuming and high-cost barrier for new providers of rail transport services.

In some countries there are documented and legally codified network statements and open access provisions for freight transport, which cannot be used by External RUs owing to the prolonged, non-transparent and expensive processes for the approval of rolling stock. It is important to note that this refers to rolling stock which has already been in use in various EU Member States for many years.

The survey has shown that some External RUs which have obtained approval of rolling stock often treat their experience with the approval process like a state secret, as they believe that this knowledge constitutes a competitive advantage over other RUs. At the moment, it is apparently not the actual business model of an RU that leads to a strategic advantage, but the ability to overcome bureaucratic barriers. Rolling stock manufacturers who have taken a keen interest in improving interoperability are more willing to report openly about their experience in the individual countries.

The full version of the study contains a special report on the approval of rolling stock. This report provides details on the approval of rolling stock in several European countries.

Approval of rolling stock as market entry barrier

Vehicle Permission: „low“ entrance barrier	Vehicle Permission: „high“ entrance barrier
▪ Denmark ▪ Germany ▪ Great Britain ▪ Luxembourg ▪ Netherlands ▪ Sweden ▪ Switzerland	▪ Austria ▪ Belgium ▪ France ▪ Italy ▪ Spain
Lack of experience: New EU Member States, Finland, Greece, Ireland, Norway, Portugal	

Source: IBM Business Consulting Services and KIRCHNER (2004)

2.2 COM Index

In the COM Index, which indicates the dynamics pace of competition in the rail transport markets, all countries from the *on schedule* group, with the exceptions of Portugal and Italy, rank in the top third. In contrast to the other countries in this group, Portugal and Italy cannot yet back up their overall good results in the LIB Index 2004 with corresponding results in respect of competition developments. In Portugal, there is still only one single private RU active on a route of approx. 22 kilometres over the *Ponte de 25 Abril* bridge. In Italy, despite the issue of safety certificates to more than 30 national RUs, who so far offer services primarily on their own networks, and to *SBB Italy* in the last quarter of 2003, competition on the RFI network is still marginal.

In relation to the length of the network, the Netherlands have a relatively high number of active and licensed RUs. In Switzerland, the rail freight sector is one of the most dynamic markets in Europe. In 2003, *BLS Cargo,* the most important competitor of SBB *Cargo*, had a market share of more than 12 per cent (net tonne kilometres). In Denmark, *Arriva* has operated transport on an important network section in the short-distance passenger transport segment.

In view of its exceptional approach to liberalisation, Great Britainis a special case, as the British market by definition meanwhile consists solely of External RUs. The situation is examined in detail in the National Summary.

Germany has the highest number of active RUs in Europe on its rail network. Sweden succeeded in improving the modal split[2] share for rail passenger transport by 32 per cent between 1991 and 2001 and leads the European field in that respect.

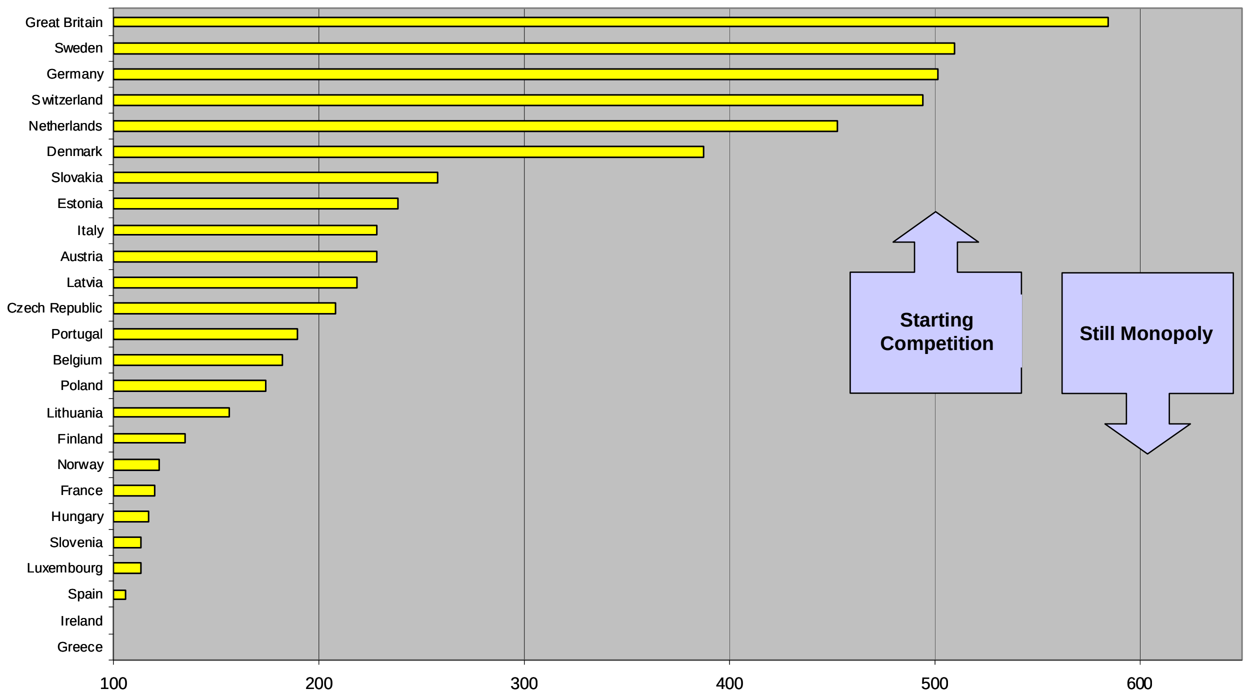
In Estonia, the state railway and the infrastructure have been privatised. The two major private Estonian RUs, which also own and manage the two infrastructures, permit only restricted competition. Two further RUs are active on the networks of the fully integrated RUs.

Of the new Member States, the Czech Republic, Slovakia, Latvia and Poland have the highest number of active External RUs. In Latvia, for example, in addition to the incumbent there are two private Freight Operating Companies active on the network. In Belgium, there are four licensed RUs in addition to SNCB, but only one of them is actually active in cross-border transports.

In the countries in the final third of the chart, the results are driven solely by the improvements in the modal split. No dynamics of competition can be observed in these countries.

[2] The Modal Split measures, how the total transport volume (of a country) is split up among different forms of transport - e.g. 10% railways, 10% waterways, 10% air and 70% road. It can be distinguished between a modal split for freight transport and for passenger transport.

Results of COM Index 2004



Source: IBM Business Consulting Services and KIRCHNER (2004)

3 Concept of the LIB Index 2004

Object of the study and researching

The area investigated for the LIB Index 2004 encompasses the following countries:

Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Great Britain, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.

In comparison with the LIB Index 2002, the new EU Member States have also been included in the area investigated in this study, with the exception of Malta and Cyprus, neither of which has rail networks. The study investigates the relative height of the market access barriers from the perspective of active External RUs and potential new market participants. Information has thus been collected which is of essential importance for the preparation of a business case and for the actual market entry.

The study analyses the following market segments

- Rail freight transport, evaluated with a weighting of 50 per cent,
- Long-distance passenger transport, evaluated with a weighting of 25 per cent and
- Short-distance passenger transport, evaluated with a weighting of 25 per cent.

Here it must be pointed out that, because of their geographical size or because of country-specific market segmentation, a few countries do not distinguish between long-distance and short-distance transport. Urban rail transport is not the object of this study.

The following figure presents an overview of the authorities, undertakings and other institutions available for interviews within the scope of the study. As a rule, the answers are validated by several interview partners, however a further check is carried out on the basis of secondary material such as legislative texts, network statements, or other studies.

The period of research began on 1 February 2004 and ended on 31 March 2004. If it was not possible within this period of time to find a plausible answer for the LEX and ACCESS sub-indices, the assumption was made that at the present time it would be too time-consuming and therefore too costly for a potential market participant to collect these data so essential for market entrance. In such cases, the minimum number of points (one point) was assigned.

Concerning the questions of administrative and operational obstacles in the ACCESS sub-index, a distinction is made between experiences and official specifications. Where no official information or sources thereof are available, there is room for arbitrariness. In such cases, the lowest number of points is therefore assigned. The first subject complex in the ACCESS Index, the questions with regard to obstacles for obtaining information, is evaluated by the consultants assigned to this study from IBM Business Consulting Services and by External RUs.

The cut-off date for the LEX and ACCESS indices was 31 January 2004. The periods relevant for the different questions concerning the COM Index can be seen from the corresponding catalogue of questions.

The IBM Business Consulting Services research team was able to conduct the interviews in the following languages: German, English, French, Italian, Polish, Portuguese, Russian and Spanish. The survey forms are in the EU working languages German, English and French.

Interviewees – LIB Index 2004

	LEX		ACCESS				Homologation (ACCESS)			
Partners interviewed	Transportation Ministry	Regulatory Authority (or Rail Administration)	Infrastructure Manager	*Incumbent*	External RU	Licence-issuing Authority	Saftey certificate-issuing Authority	Rolling Stock approval Authority	Rail Industry	Other
Austria	x	x	x	x	x				x	x***
Belgium					x				x	
Czech Republic	x	x	x		x					
Denmark	x	x	x	x	x				x	
Estonia	x	x	x		x	x				
Finland	x			x						
France					x				x	
Germany		x	x	x	x	x	x	x	x	
Great Britain	x	x			x					x*
Greece				x					x	
Hungary	x		x	x					x	
Ireland	x									
Italy	x	x	x		x	x			x	
Latvia	x	x				x				
Lithuania	x			x						
Luxembourg					x				x	
Netherlands	x	x	x	x	x		x	x		
Norway			x						x	x**
Poland	x	x	x	x	x	x	x		x	
Portugal		x		x	x					
Slovakia	x		x		x				x	
Slovenia	x			x					x	
Spain	x			x					x	
Sweden	x	x	x			x	x			
Switzerland	x	x	x		x	x	x	x	x	

* e.g. *Strategic Rail Authority*

** Norwegian corporate consulting

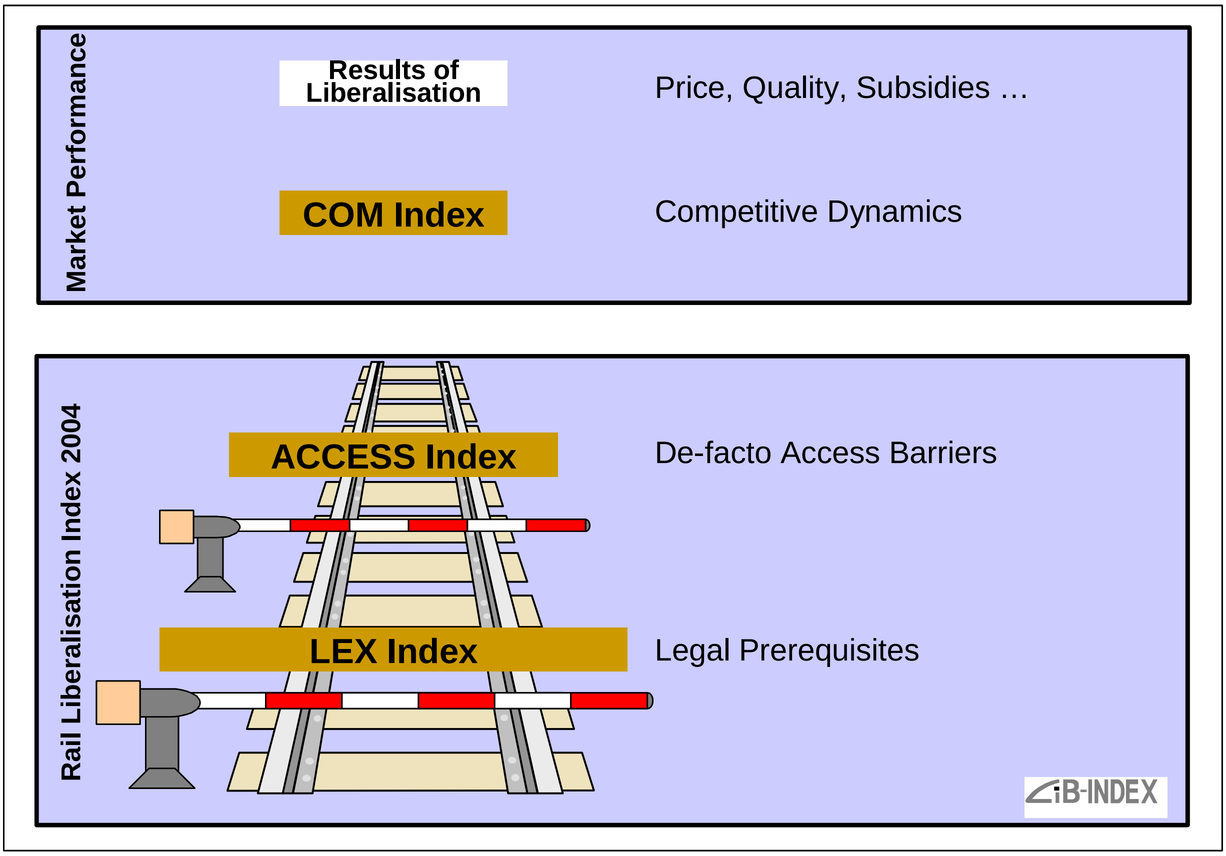
*** Law firm in Vienna

Structure of the LIB Index 2004

The LIB Index 2004 comprises the LEX and ACCESS sub-indices. The COM Index is not part of the overall index, but is still compiled as an important part of the study - the so-called market test. The contents of the sub-indices are made up of the following:

- LEX Index: What are the legal bases for market entrance (*law in the books*)?
- ACCESS Index: What form do market access opportunities and barriers take in practice (*law in action*)?
- COM Index: What are the dynamics of competition in the rail transport market?

Structure of the LIB 2004



Source: IBM Business Consulting Services and KIRCHNER (2004)

The focus of this study was thus on two core aspects:

<u>*Firstly:*</u> How easy is it from the point of view of an RU, according to our present state of knowledge, to become active in a specific national rail market?

<u>*Secondly*</u>: How well does the market development reflect the market access conditions determined for External RUs?

The assertion sought by the study is not the absolute degree of liberalisation, but the relative degree of liberalisation in the different countries.

LEX Index

The basis for the market access of External RUs is the national legislation. For an undertaking wishing to invest in the rail market, a safe and transparent legislative basis is the prerequisite without which an investment decision cannot be made. Consequently, it is necessary to first examine the progress in the transposition of European Community law into national law, as well as the correct arrangements for the implementation of the EU directives in the interest of ensuring a non-discriminatory network access, i.e. the *law in the books*. Decisive here are the different aspects required by the directives and not the formal notification of the overall package. This sub-index is intended to reflect the extent to which the legal and regulatory conditions are in line with the goal of market opening for new competitors.

ACCESS Index

The second obstacle restricting competition from the point of view of a RU is to be found in the practical implementation of existing laws for liberalisation, i.e. the *law in action*. This results in a second sub-index, which classifies the individual countries according to the extent to which investments of External RUs in the railway sector are permitted in practice, the extent to which the planned market activity can be implemented in practice, and the extent to which the administrative processes are conducive to business on the part of the RUs.

The second sub-index thus deals with the question of the actual market entrance opportunities, that is the factual obstacles and the effort in time and money for External RUs required to obtain a licence, request train paths and in operation. On the basis of process key figures, the length and the complexity of the approval processes are described.

COM Index

The third question complex examines how the market for External RUs has developed to date. This represents an ex-post view on the liberalisation results.

On the basis of aggregated key figures such as market concentration, modal split and growth dynamics, the determinants of the COM Index measure the actual competitive development. As far as possible, a distinction is made here between the freight transport, short-distance passenger transport and long-distance passenger transport market segments. The greater the intensity of competition, the better are the opportunities for market entrance on the part of External RUs. The COM Index can therefore be seen as an indicator for the measurement of results in regard to access conditions. However, the determinants queried here, such as modal split and market share development, are not determined by the degree of liberalisation alone. The modal split depends strongly on the overall intermodal conditions in comparison with other transport modes outside the scope of this study. A pure consideration of market shares would also not be sufficient, since these depend also to a great extent on the relative efficiency of the undertakings and the characteristics of the network effects. Decisive for the intensity of competition is ultimately the potential for competition, as represented in the LEX and ACCESS sub-indices.
The data is collected e.g. from surveys, business reports and transport statistics from the EU and national authorities.

Method of Calculation of the Index

The result of the LIB Index consists of the two LEX and ACCESS sub-indices. The LEX Index contributes 30 per cent and the ACCESS Index 70 per cent to the LIB Index.

$$\boxed{\text{LIB Index 2004} = 30\ \%\ \text{LEX} + 70\ \%\ \text{ACCESS}}$$

The minimum number of points for the LIB Index is 100 points, and the maximum number of points 1000 points. The greater the number of points, the lower are the relative access barriers for an interested RU in the respective country, i.e. the greater the progress made in the liberalisation of the respective transport market.

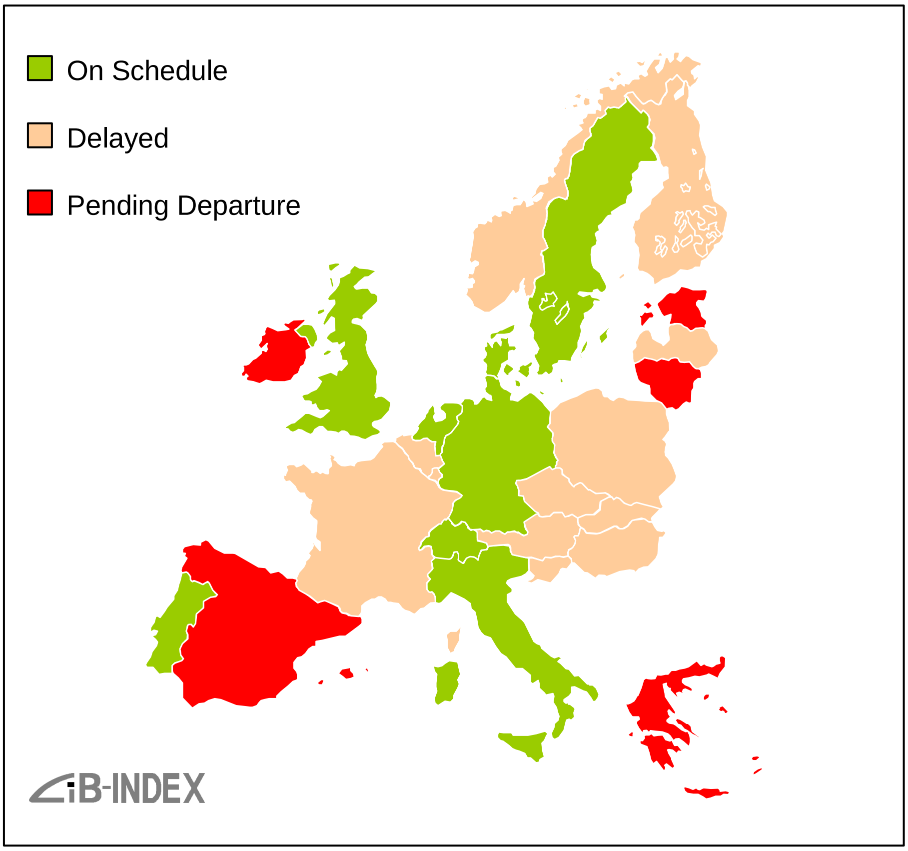
In answering the questions relating to the LEX and ACCESS sub-indices, as well as the COM Index, scores are always given in whole numbers from "one" to "ten". The minimum and maximum number of points for the sub-indices correspond to those of the overall index, that is 100 and 1000 points.

The concept of the LIB Index 2004 is described in detail in chapter 4 of the full version of the study. Further information on weightings and the range of answers can be found in Annex VII of the full version of the study.

4 Summary and Outlook

The *Rail Liberalisation Index 2004* confirms the most important findings from 2002, regardless of the improved and enhanced methods employed: liberalisation of the national rail markets in Europe is still, in 2004, at very different stages in different countries. In spite of several EU directives on the gradual introduction of competition, the rail markets in some countries continue to be practically inaccessible.

Geographical Distribution of Market Opening



Source: IBM Business Consulting Services and KIRCHNER (2004)

In several countries, however, the legal foundations and practical access conditions for rail competition have changed since 2002. This is reflected by changes in ranking and group allocation in the Liberalisation Index. Portugal and Italy have been added to the country group with dynamic liberalisation, *on schedule*. Luxembourg is another country that has made progress, rising from the bottom group into the *delayed* group.

This study also includes the Central and Eastern European countries for the first time. Information on the accessibility of the rail transport markets in these countries has been only fragmentarily available so far, while its importance in the European division of labour and, consequently, within the European transport streams is growing steadily. The *Rail Liberalisation Index 2004* includes these countries in the systematic survey and collection of data and shows their liberalisation status. It should be emphasised that, in the results, most of the acceding countries fall into the second group *delayed* and thus, although they have some catching up to do as at spring 2004, they have already created more competition-friendly conditions in rail transport than several long-time EU Member States.

The *Rail Liberalisation Index 2004* focuses on the opening up of the rail transport markets in Europe, which is supposed to increase the competitiveness of rail transport services against other transport modes through intramodal competition. Liberalisation is, thus, seen as a central instrument for achieving a sustainable transport system in Europe. The *Rail Liberalisation Index* is an accepted source of information and yardstick for the current status of the market opening within Europe. The detailed observation of the process of market opening over a number of years as well as future updates of the study, preferably at equal intervals, is therefore of major scientific, political and business interest. The recording of the effects of liberalisation, possibly in a separate performance index or in the form of an extended COM Index, will gain empirical substance and receive more attention in the coming years.

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