

Smooth Ride for European Toll Roads in 2004, but Twists and Turns Ahead

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Smooth Ride for European Toll Roads in 2004, but Twists and Turns Ahead

The most important credit trend in the European toll road sector is that appropriately structured transactions continue to achieve and maintain investment-grade ratings. Ratings on European toll road project financings and toll road network operators have remained stable over the last 12 months. Only one rating action was taken, the outlook revision on Autostrade SpA, Italy's largest toll road network operator, with a market share of about 60%, to stable from negative on May 4, 2004.

All senior debt ratings so far assigned within the sector in Europe are investment grade, except for those on Croatia-based Bina-Istra d.d., which is rated BB+/Stable/--, one notch below the Croatian sovereign. Strong activity in road financing also resulted in two new senior debt ratings and one new subordinated debt rating (see table 1).

The aim of this annual review is to provide an overview of rating activities and credit trends in the European toll road sector. The projects mentioned should not be regarded as comprising a definitive list of all current and future toll road transactions. The projects were selected to highlight general sector trends and factors that directly affect the credit quality of related transactions. A number of European countries not examined in detail below are also developing public-private partnership (PPP)-style highway concession programs, including Belgium, Greece, and Holland.

| European Toll Road Sector Ratings 2004 | | | |
|--|----------|-------------------------|-------------------------|
| European toll-road network operators | | | |
| Name | Country | Rating | Analyst |
| Abertis Infraestructuras S.A. | Spain | AA-/Stable/-- | Lidia Polakovic |
| Autobahnen- und Schnellstrassen-Finanzierungs-Aktiengesellschaft | Austria | AAA/Stable/A-1+ | Kai Stukenbrock |
| Autoroutes du Sud de la France S.A. | France | A+/Stable/A-1 | Karl Nietvelt |
| Autostrade SpA | Italy | A/Stable/A-1 | Monica Mariani |
| BRISA Auto-Estradas de Portugal S.A. | Portugal | A+/Stable/A-1 | Maria Lemos |
| COFIROUTE | France | A+/Stable/A-1 | Alexandre de Lestrangle |
| Toll-road project finance under surveillance | | | |
| Autolink Concessionaires (M6) PLC | U.K. | AAA, BBB+(SPUR)/ Stable | Robert Bain |
| Bina-Istra, d.d. | Croatia | BB+/Stable | Maria Lemos |
| CountyRoute (A130) PLC | U.K. | BBB/Stable | Robert Bain |
| Road Management Consolidated PLC | U.K. | AAA, BBB(SPUR)/ Stable | Robert Bain |
| Societe Marseillaise du Tunnel Prado-Carenage S.A. (SMTPC) | France | AAA | Alexandre de Lestrangle |
| Toll-road project finance point-in-time ratings | | | |
| Autovia del Camino S.A. | Spain | AAA, BBB-(SPUR) | N/A |
| ALIS Finance a.r.l. | France | AAA | N/A |
| Connect M77/GSO PLC | U.K. | AAA, BBB-(SPUR) | N/A |
| Road Management Services (A13) PLC | U.K. | AAA | N/A |
| Road Management Services (Finance) PLC | U.K. | AAA | N/A |
| Algarve International B.V. | Portugal | AAA | N/A |

European Toll Road Sector Ratings 2004 (cont.)

Other road ratings

| | | | |
|---------------------------------|----------------|-----------------|-------------------------|
| Caisse Nationale des Autoroutes | France | AAA/Stable/-- | Alexandre de Lestrangre |
| Fjellinjen AS | Norway | AA/Stable/-- | Magnus Pettersson |
| Oresundsbro Konsortiet | Sweden/Denmark | AAA/Stable/A-1+ | Simon Lynch |

N/A--Not applicable.

Private Sector Participation Takes Off

It is clear that the private sector is taking an increasing role in the development and financing of new highway infrastructure in Europe. The ambitious road programs in Spain and Ireland, upcoming part-privatizations in France, project refinancings in Portugal, numerous electronic toll collection (ETC) initiatives, and roads working their way through various procurement processes across the continent are testimony to this trend.

The number of countries that have implemented road concession financing, mostly as PPPs (this term also includes private finance initiative--PFI--transactions) continues to increase and the volume of transactions on the horizon suggests that this trend will continue in the short to medium term, requiring the raising of substantial funds from banks and/or the capital markets.

Transactions with the involvement of a monoline insurer, providing insurance for full and timely payment of the underlying debt, have also become well established. Monoline insurers are expected to play an important role in new transactions and the refinancing of existing ones.

Slowing Traffic Growth

This positive picture must be tempered, however, by the slowing traffic growth observed in a number of European countries--mostly resulting from weak national economies--which characterized the past year's operating environment, although Italy's traffic managed to increase substantially above GDP growth. Nevertheless, traffic growth across Europe appears to be steady, but sustained year-on-year growth exceeding 2% per year is the exception, not the norm. Historical relationships between macroeconomic indicators (such as GDP) and traffic growth cannot be relied upon to continue indefinitely into the future.

Increasing Involvement of Regional Governments

In some countries with a track record in project finance, the granting of toll road concessions has moved from central government to the regions, considerably widening Europe's project-promoter base. This raises the issue of counterparty risk as some of these regions are not rated. Counterparty risk in general remains a key credit issue for the sector because some of the promoters may have noninvestment-grade credit quality. Structuring a transaction so that it is remote from the credit quality of project participants is therefore a key requirement for the attainment of an investment-grade project rating.

Environmental Issues

Environmental issues will move center stage in future road policy across Europe. Consequently, road schemes may be delayed or even cancelled if insufficient attention is paid to the environmental implications of road infrastructure development during the project planning, design, appraisal, permitting, and approval stages.

The Future

Many challenges lie ahead, even for countries such as the U.K. and Portugal, where road concessions are well established. New road-user charging initiatives have had a patchy record. Urban congestion charging in London and the national ETC road-user pricing scheme for trucks in Austria, for example, have been success stories. The innovative, satellite-based system for tolling trucks in Germany, however, has encountered start-up problems and ongoing delays. Other ETC initiatives and innovative proposals such as network-wide maintenance concessions are under development or have only recently begun operations. Many of their structural enhancements and credit-protection components remain untested as yet.

Aspirations to implement national road-user charging schemes across Europe, and the effect of these on single-asset or partial network concessions that already exist or are being developed, raise longer-term policy questions.

Technology will play an important role in the toll road sector, but implementing innovative solutions may prove challenging--as Germany's "TollCollect" satellite-tracking system has demonstrated. The use of established technologies and techniques will continue to underpin successful sector financings for the near future.

As the number of countries implementing PPP-style road financings increases, the importance of promoting attractive and successful transactions early in a program's rollout has become evident. In light of this, the decision in Norway, where the first toll road project financing transaction has recently closed, to insulate lenders from traffic risk is an important credit positive.

By contrast, countries such as Portugal, which have so far used shadow toll payment mechanisms, may migrate to using real tolls. The number and size of awarded concessions and the resulting stress placed on the government's budget lies behind such moves, which would create an interesting dynamic in the sector. New highway concessions such as the M6 Toll in the U.K. and the Warnow Tunnel in Germany, have demonstrated the start-up risks associated with this type of transaction. Traffic performance statistics have also highlighted the fact that shadow toll projects are not risk free either. Standard & Poor's expects countries to look increasingly to some form of PPP-style road financing, but developments will differ among countries, depending to a large extent on the strength of the concession framework and the protections extended to lenders. Some countries may opt for pure availability based concession payment mechanisms, but the potential credit benefits of this approach are all too often eroded by very highly leveraged capital structures, leaving projects struggling to reach investment-grade credit quality. A key requirement is to understand the payment mechanism in the specific context of the underlying traffic demand profile and other performance characteristics of project roads.

Other Issues

In its review of the European toll road sector, Standard & Poor's has reached a number of other conclusions, summarized below:

- Government budget deficit pressures and sensitivities across Western Europe will maintain interest in tolled highway concessions, at least in the short to medium term.
- PPP-style concessions and variants thereof will be a requirement for many countries in Central and Eastern Europe, owing to ongoing domestic budgetary constraints.
- Europe is not a homogenous market. Some countries such as Spain may have a very strong requirement for toll road financings, whereas others may not, not always for the same reasons.
- Concession programs are advancing at very different rates in different countries, from small-scale demonstration projects to mature programs entering into a refinancing phase.
- Although shadow toll payment mechanisms partly mitigate traffic risk, these transactions are not completely risk free.
- A variety of cost-recovery regimes are being employed on concessions around Europe. From a credit analysis perspective, however, payment mechanisms cannot be assessed on their own. Payment mechanisms can only be evaluated on a case-by-case basis, through understanding the underlying traffic demand profile and determining the potential for future project revenues to be impaired.
- Given longer-term aspirations for national road pricing in a number of European countries, it remains unclear how the existing single-asset or partial-network concessions will be incorporated into nationwide road-user charging schemes as they start to be developed.
- In future, there may be more interest in selective motorway widening and rehabilitation concessions in Western Europe. Citywide long-term highway maintenance contracts could also be a strong source of concession activity for the future.
- As the number of regional and local government-let concessions increases, there may be credit quality concerns when analyzing less sophisticated concession grantors.

European Toll Road Review

U.K. and Ireland

The U.K. has a well-established market for design, build, finance, and operate (DBFO) road transactions, whereas the Republic of Ireland (ROI) remains at the early stages of its own program.

The U.K. is developing other types of infrastructure charging and financing initiatives such as Congestion Charging in London, proposals for citywide road network maintenance concessions, and concessionaire-reimbursement mechanisms reflecting the level of service enjoyed by road users. Traffic volumes on two rated transactions under surveillance, however--Autolink Concessionaires (M6) PLC and Road Management Consolidated PLC--are under pressure. Standard & Poor's also assigned new ratings to CountyRoute (A130) PLC's senior and subordinated debt.

In the meantime, after a lengthy development stage, the first ROI road transaction--the €270 million, 39 kilometer (km) N4/N6 between Kinnegad and Kilcock--reached financial close in March 2003. The €150 million Dundalk

Western Bypass transaction reached financial close in February 2004, and that for the €136 million N8 closed in June 2004.

User-paid tolls.

The U.K.'s first modern, interurban toll road, the 43 km, Macquarie and Autostrade-owned M6 Toll in the West Midlands, opened at the end of 2003. Despite a slow start, traffic is reported to have risen to about 55,000 vehicles per day in July 2004, and in August the concessionaire, Midland Expressway Ltd. (MEL), celebrated its 10-millionth customer. This milestone was significant because it marked the end of MEL's introductory tariff discounts. Truck volumes remain below projections, however, and, in response, MEL announced that the discount period for heavy goods vehicles (HGVs) would be extended in an attempt to attract a higher proportion of these customers onto the facility.

Standard & Poor's has observed truckers' strong resistance to point-of-use charging on other toll roads around the world, and the MEL example serves to underscore the difficulty of predicting the behavior of commercial vehicle users, particularly owner/drivers during the "ramp up" of new facilities. The tariff differential (trucks usually pay 4x-10x the private car toll) means that a small shortfall in HGV volumes can lead to a significant shortfall in project revenues.

In July 2004, the U.K. Secretary of State for Transport outlined a consultation proposal for a possible extension to the M6 Toll that would extend the facility to Manchester, some 80 km further north. The extensive land acquisition requirements would, however, mean that this remains a longer-term aspiration with an 8-10 year planning horizon. There are no other plans for the development of interurban user-paid toll roads in the U.K.

Urban congestion charging.

London's congestion charging scheme, introduced early in 2003, has been a success in terms of its key performance metric, congestion reduction, with traffic volumes down by about 20% inside the capital's central charging zone. Plans to extend this zone to encompass parts of west London, possibly by the end of 2005, are being considered. The scheme has not been adopted outside the capital to any great extent, however, largely due to political resistance, the existence of institutional barriers, and concerns about the capacity of local public transport services to offer an attractive alternative to the private car. The situation may change, however, given the publication in July 2004 of the Department for Transport's "Road Pricing Feasibility Study".

Although the Department states that national road-user charging is "at least ten years away", it is now actively encouraging cities to come forward with trial or "pathfinder" congestion charging schemes. It could therefore be possible to remove many of the practical barriers to scheme implementation and allay the concerns of local politicians. Such developments may renew interest in city-center road-user charging across the U.K., and could provide the impetus required for a number of cities, known to favor a pricing solution to road congestion, to move towards implementation. Standard & Poor's views on congestion charging are considered in detail in "The Credit Dynamics of Congestion Charging", published on Nov. 6, 2003, on RatingsDirect, Standard & Poor's Web-based credit analysis system).

Urban road network maintenance concessions.

The pioneering £500 million (\$896 million) financing supporting a 25-year concession for the rehabilitation, maintenance, and management of the entire 400 km urban highway network in Portsmouth was closed in July 2004. Under the concession, unitary payments are 90% linked to maintenance of carriageway standards across the city, with deductions for performance falling short of predetermined criteria. The remaining 10% reflects truck use on a

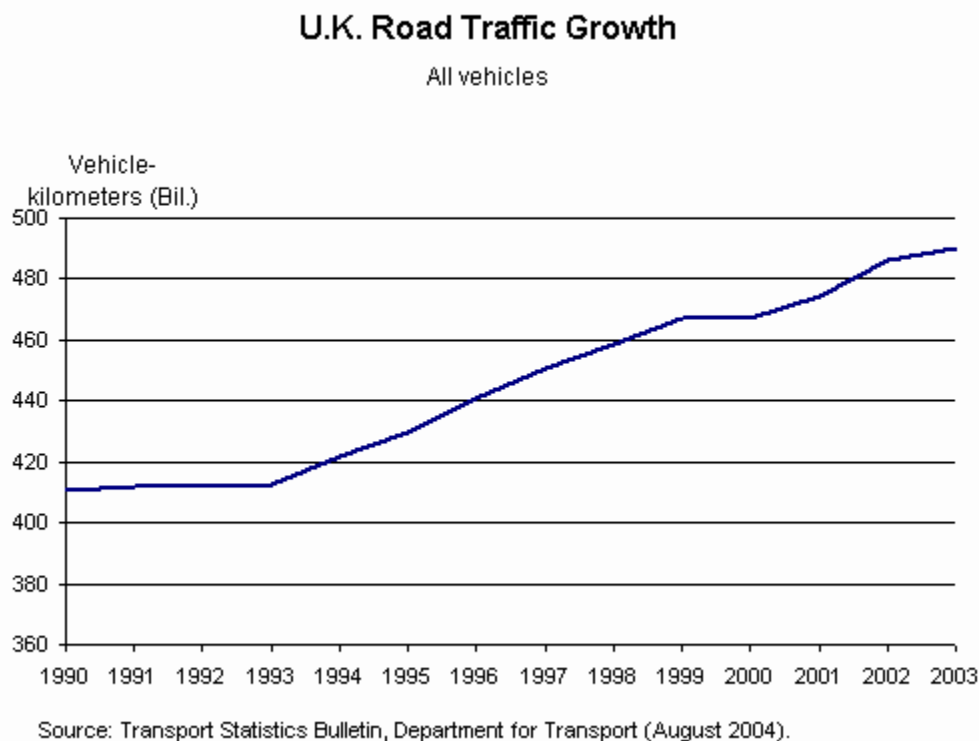
shadow toll basis.

The Portsmouth transaction could be the start of a trend. A similar, considerably larger (at 2,500 km) network management and maintenance concession contract is out to tender for Birmingham. The transaction size is estimated to be about £2.5 billion. Similarly styled deals are being considered by other cities around the U.K.

Initial analysis by Standard & Poor's suggests that, although complex, these transactions have the potential to achieve investment-grade credit quality, assuming that the accompanying financial structures are not overly aggressive. The management of interface risks with the many statutory agencies that are affected by urban highway network management will be a key credit factor.

Traffic growth.

Chart 1 tracks traffic growth in the U.K. since 1990. The early 1990s were characterized by a period of almost zero traffic growth, which then surged mid-1990s. There are signs of a slowdown in recent years, however. In 2002-2003, traffic grew by just 0.8%, a trend observed in other European countries. Although light van traffic grew by 5.2%, private car traffic grew by only 0.03%.



Sluggish growth has affected a number of U.K. shadow toll roads. Although opening volumes on Autolink Concessionaire's M6 project road were above projections, subsequent growth has fallen below expectations, in part due to a slow catchment area economy. Similarly, Road Management Consolidated has experienced traffic growth below forecasts. This situation has prompted some refinancings. In February 2004, CountyRoute's £88 million senior secured bank loan was refinanced. CountyRoute, the Laing-owned concessionaire, was awarded a DBFO

concession for a shadow toll road in Essex, but actual traffic volumes were 25% below projections, prompting a refinancing to reprofile the debt-service obligations.

Shortfalls in opening traffic and subsequent traffic growth underscore the challenges of forecasting driver behavior accurately and emphasize the negative impact on credit quality of exposing lenders to unmitigated traffic risk.

Future DBFO transactions in the U.K.

In recent years the U.K.'s road concession activity has fallen short of the expectations raised by the high volume of transactions in the mid-1990s, in part due to a change in government in 1997. Future central government-promoted PPP road deals look set to focus on large motorway widening projects (affecting the M25, the M1 East Midlands, and the Birmingham-Manchester stretch of the M6). The procurement method for these contracts has yet to be announced and the documentation is reported to be one year from completion. In the meantime, market activity is likely to be characterized by regionally promoted transactions such as Newcastle-upon-Tyne's New Tyne Crossing and Northern Ireland's highway widening and intersection improvement concessions.

The ROI PPP roads initiative.

The Irish government's National Development Plan for 2000-2006 placed PPP road concessions at the heart of its infrastructure development strategy. The plan called for an injection of €1.3 billion of private capital, representing 23% of the National Roads Authority investment program, and identified 11 potential PPP road schemes.

As the ROI's PPP road concession program evolves and matures, early concerns about some aspects of the credit quality of these transactions have been addressed. As in many European countries, however the further highway projects are located away from major centers of population and employment, the more uncertainty there is about the willingness of drivers to pay for small time savings or marginal improvements in journey time reliability. This uncertainty has the potential to erode credit quality. The development of creditworthy PPP-style road projects in less-populated regions is a challenge that will face a number of European countries over coming years.

Spain

Spain remains at the forefront of toll road financings. Experienced local sponsors--who are also important international participants in the toll road sector--a strong track record of successful roads operation, and a supportive concession framework have driven a large number of transactions. The previous government introduced a revised concession framework that Standard & Poor's regards as supportive of toll road financings. Standard & Poor's views on the country's framework are discussed in "Concessions in Spain Set to Gain from New Law", published on Oct. 30, 2003, on RatingsDirect.

Some of the more mature concessions in the Spanish sector are likely to be refinanced over the next couple of years, and the list of new and potential transactions indicates that Spain will continue to be one of the most dynamic European markets for toll road financings. A key question, however, is the degree to which traditional Spanish enthusiasm for highway concessions will be sustained in coming years.

Traffic performance figures from single assets and toll road network operations are continually monitored by Standard & Poor's. In Spain, although these performance figures have historically shown strong growth, there are signs that this may be leveling off. Standard & Poor's recently assigned its first public project rating to a toll road financing, Autovia del Camino S.A., and assigned a rating to the Spanish toll road network operator Abertis Infraestructuras S.A. Abertis operates more than 1,500 km of Spain's toll road network, more than 60% of the

Spanish total. Traffic risk was identified as a key concern for the company, although this is largely mitigated by the maturity of Abertis' concessions. Its two largest concessions have already completed 67% of their term.

Spain's autonomous communities (regional governments) have increasingly used their devolved powers in recent times, and as a result a number of them have adopted the role of highway concession grantor. Whereas central government concessions tend to look to user-paid tolls, the regional governments have favored shadow tolling solutions. Standard & Poor's experience demonstrates that regional government-promoted shadow toll road concessions in Spain can achieve investment-grade ratings. In May 2004, for example, Standard & Poor's assigned a 'BBB-' underlying rating to a €175 million senior loan extended by the European Investment Bank (EIB; AAA/Stable/A-1+) to Autovia del Camino, a shadow toll road operator in the Navarre region in north Spain. The rating on this existing road was supported by its strong rationale, long traffic history, and adequate debt-service coverage ratios.

The spread of ETC technology across Europe has prompted the European Commission to look closely at system compatibility, standardization, and interoperability. In these matters, Spain has taken a lead. Spain's "Via-T" initiative enables patrons to use any ETC-equipped toll road, irrespective of operator. This negates the need for users to maintain separate accounts (and separate in-vehicle equipment) for use on different parts of the network. This initiative is largely led by banks. Banks distribute the in-vehicle equipment (transponders) and host the customer-interface functions, while contractual provisions require that concessionaires participate in the interoperable scheme. As the need to ensure compatibility becomes an issue in other countries, Spain's contractual requirements and bank-led approach could act as a model for others.

Portugal

Portugal has actively embraced the PPP concept for infrastructure development and service delivery. Although the focus has recently switched to the health sector, Portugal's early experience with concession highways has been extensive and largely successful. The concession program covered 17 highway projects, seven of which were shadow tolls, called SCUTs in Portugal. Such is the maturity of the Portuguese sector that some of the earlier concessions are now in their operational phase and have already been refinanced.

A potential conversion to real tolls and the refinancing of existing debt for concessionaires may present challenges in future. The recent economic recession in Portugal was accompanied by negative traffic growth across parts of the country. BRISA Auto-Estradas de Portugal S.A., the large Portuguese toll road network operator, recorded negative growth of 0.2% for 2002–2003, with growth of negative 3% or less recorded on some of its motorways. These data support Standard & Poor's view that traffic growth is not universal and challenge a widespread belief that traffic growth continues unabated (or, at worst, simply levels off) when countries experience economic recession.

Portugal made early use of capital market financing. The SCUT do Algarve concession, on Portugal's south coast, used a wrapped bond in tandem with an EIB loan, the first long-term Euro infrastructure bond in Continental Europe. The path taken by SCUT do Algarve is likely to be followed by other Portuguese concessionaires.

Under the SCUT concessions, the government retains the right to convert from shadow tolls to user-paid tolls while compensating the concessionaire. Budgetary pressures, in part caused by the scale of the SCUT program and its associated government payment obligations, may prompt Portugal to consider reverting to user-paid tolls sooner rather than later, at least on those projects that have yet to be opened to traffic. SCUT payments represent 0.04% of

GDP in Portugal, but, from 2007, these obligations will increase tenfold, to 0.4% of GDP.

Lessons from this migration, if it does occur, will be of interest to other concession grantors who have initially favored a shadow toll approach, but have reserved the right to impose point-of-use charges if and when they wish. The majority of shadow toll concession agreements reviewed by Standard & Poor's contain such provisions. All of the U.K.'s DBFO shadow toll roads, for example, explicitly contemplate user-paid tolls, albeit with adequate compensation for concessionaires to cover lost revenue.

The switch from shadow tolls to user-paid tolls involves far more than the installation of toll collecting infrastructure, however. A number of shadow toll roads in Portugal and beyond have been designed with numerous entrances and exits, many of which would require some form of traffic control for effective toll collection. This may constrain aspirations to move to point-of-use charging on a number of shadow tolls roads in Europe.

Road-related construction delays have also been observed in Portugal, mainly resulting from increasing environmental awareness, legislation, and, consequently, objections--trends evident across many European countries. Local environmental impact assessment and approvals procedures have become stricter as Portugal falls in line with EU environmental laws. BRISA estimates that environmental approval setbacks will delay completion of its toll road network to 2006, two years later than envisaged in the concession contract. In the absence of appropriate mitigants, such delays have the potential to disrupt construction schedules and impair the early flow of project revenues. Standard & Poor's places considerable emphasis on understanding construction schedule risk. Given the increasing environmental sensitivities, any exposure to schedule and protester risk will continue to impair transactions' credit quality.

France

French toll roads appear to favor private participation far more than other sectors in the country. Nevertheless, the ownership of French toll roads has historically been dominated by public sector highway concessionaires known as Sociétés d'Economie Mixte Concessionnaires d'Autoroutes (SEMCA's). Of the three main SEMCA's, the largest, Autoroutes du Sud de la France S.A., was 49% privatized in 2002. Standard & Poor's also rates the toll road network operator COFIROUTE and maintains surveillance on Societe Marseillaise du Tunnel Prado-Carenage S.A. All French toll road sector ratings are supported by favorable concession contracts.

There may be partial privatizations of the two other SEMCA's in France in 2004-2005. Société des Autoroutes Paris-Rhin-Rhône could be part-privatized by the end of 2004, and Societe des Autoroutes du Nord et de l'Est de la France in the first half of 2005. Initially, the government is expected to sell about 20%-30% of its stake in these companies. Majority state ownership is nevertheless expected to be retained in the long term, as indicated by the government in policy statements at the end of 2003.

In a separate but related development, the French government has announced its intention to establish from 2005 a state-owned entity called Agence de Financement des Infrastructures (AFIT), which will contribute to the financing of infrastructure (primarily transport) investment. Part of the funding for the agency is expected to come from dividends from the state's majority stakes in the toll road operators.

In addition, increasing numbers of individual toll road projects are being undertaken by the private sector. The current list of French candidate PPP projects reflects this strategy.

Surveillance data show solid historical traffic growth, although it was down in 2003 from previous years. In the context of a sluggish European economic environment, traffic growth on the French highway network has been adversely affected over recent years, dropping to 2.1% in 2003, down from 4.2% in 2002 and 4.9% in 2001. The first months of 2004 suggest, however, a recovery, particularly in terms of commercial users (trucks).

Italy

In 2003, Italian motorway traffic grew by a healthy 2.8%, despite GDP growth of only 0.4%. Ongoing delays to the €860 million Bre-Be-Mi project, Italy's first PPP-type road concession, however, continue to concern those interested in developing project finance-based infrastructure projects in the country. The 20-year contract for the construction and operation of a 60 km highway from Milan to Brescia was awarded early in 2003, but local authorities along the route are demanding changes to the original design. The potential for changes to the terms of a concession after it has been awarded is considered negative by Standard & Poor's in terms of the short-term development of project finance in the country.

Despite considerable interest in PPP transactions, revised enabling legislation, the establishment of a dedicated Italian PPP unit, and the identification of specific PPP-candidate projects, project finance has not yet been used for road transactions in Italy. It remains to be seen whether any of the €43 billion identified for highway projects in the country's 2001 Strategic Infrastructure Investment Program will be provided by the private sector.

Germany and Austria

For some years, Germany has been viewed as an exciting source of PPP-style road transactions. It is Austria, however, which has been more proactive in the field. Ongoing delays to the implementation of TollCollect, the satellite-based truck tolling system were a significant setback for the German toll road sector. In addition, the first PPP-style road financing to start operations in Germany, the Warnow Tunnel, has been hampered by traffic volumes initially 65% lower than projections.

Toward the end of 2003, Standard & Poor's assigned its 'AAA' rating to the government-owned Austrian monopoly motorway operator Autobahnen-und-Schnellstrassen-Finanzierungs-Aktiengesellschaft (ASFiNAG). ASFiNAG generates revenues from tolls and other road-user charges, motorists' fines, and the operation of service stations. The company is responsible for the financing, construction, maintenance, and operation of the entire 2,000 km network of motorways and high-speed roads in Austria, making it Europe's third-largest motorway operator. It is also responsible for granting highway concessions.

Technology.

The failure to introduce innovative, satellite-based toll collection technology for trucks dominated Germany's toll road sector news in 2004. Originally scheduled to be launched in August 2003, technical problems have pushed this date back to January 2005, and initial implementation is now described as "scaled down". Full nationwide implementation is slated for late 2005, with significant incentives in place. In March, the TollCollect consortium, including DaimlerCrysler AG (BBB/Stable/A-2), Deutsche Telekom AG (BBB+/Positive/A-2), and COFIROUTE agreed to pay the German government €780 million per year in case of future delays, and €1 billion in damages if the system fails during operation.

In contrast, in January 2004 Austria successfully introduced its electronic road-user charging scheme for trucks

weighing more than 3.5 tons. The microwave-based, dedicated short-range communications transponder scheme is operated by Europass, a subsidiary of Autostrade, under a 10-year, €195 million project-financed concession with ASFiNAG. Net revenues are estimated at about €600 million per year, to be used by ASFiNAG for the operation, maintenance, and development of its highway network.

The German experience highlights the increasing potential for technology risk to disrupt toll road projects. In theory, blue-sky technologies may be capable of automating the toll collection process, offering significant benefits to operators and users. To date, however, only lower-level wireless-based solutions have been widely deployed. Standard & Poor's highlighted some of the technology related risks that can affect the creditworthiness of toll facilities in "Technology Risk Takes its Toll on German Road Pricing Initiative", published on Feb. 18, 2004, on RatingsDirect.

Owing to the problems encountered in Germany, a number of European countries remain cautious about the use of innovative technology for collecting road-user charges, and may elect to avoid early implementation of satellite-tracking solutions in favor of more mature technologies that rely on vehicle communications with roadside infrastructure. The integrity of the underlying toll collection technology used by any initiatives designed to securitize the revenues from truck tolling will need to be closely scrutinized.

Approaches to encouraging private funding.

Legislative barriers, political resistance, and the delays to TollCollect have slowed the development of private sector toll roads in Germany. In recent years, Germany has proposed two approaches, through which it intends to take forward private participation in its roads sector. The A-model is essentially a motorway widening and maintenance program. The F-Model, however, is a DBFO variant to be used for tunnels, bridges, and certain classes of mountain road. To date, two F-Model concessions have been let and a number of A-Model proposals are being developed.

Experience with Germany's first F-Model toll facility, however, has not been the strongest foundation upon which to roll out an entire concession program. The Warnow Tunnel in Rostock opened in late 2003, with initial traffic volumes at about 35% of forecasts. Ongoing project underperformance subsequently prompted the owner, Macquarie, to write off its £153 million investment in the project.

ASFiNAG has developed four highway concession packages. These packaged concessions, with a 30-year term, will employ a payment mechanism 30% based on shadow tolls and 70% on asset availability. The value of the concession program is estimated at about €3 billion.

The €1 billion Package 1, part of ASFiNAG's Ostregion PPP, will comprise the 23 km A5 South, the 12 km S1 East, the 12 km S1 West, and the 4 km S2, improving the important commuter corridor from Mistelbach in the north to Vienna. The procurement process is due to begin in September 2004, with contract award scheduled for late 2005. The remaining packages will be rolled out from 2005.

Scandinavia

Of the Scandinavian countries, Norway and Finland are the most active in terms of toll road concessions, although both countries demonstrate a cautious approach to embracing PPP. In 2001, the Norwegian Ministry of Transport and Communications identified three road projects it would use to test PPPs with regard to realizing efficiencies, in advance of extending the procurement approach beyond the highway sector. The payment mechanism does not pass any traffic risk to concessionaires. Instead, it comprises availability, safety, and performance elements. Traffic

payments may be made, but only when traffic volumes are significantly higher than projected.

The decision to exclude traffic risk altogether from a concession payment mechanism is a unusual feature of the Norwegian program, although Standard & Poor's has observed similar features elsewhere. In the absence of traffic risk, many toll road transactions would achieve strong investment-grade ratings. In practice, however, the absence of traffic risk often encourages scheme promoters to embrace financing structures even tighter than the sector norm. These very aggressive financing structures then tend to constrain the credit quality of toll road transactions.

Finland's first privately financed DBFO road concession, the €100 million, 69 km shadow toll motorway extension between Helsinki and Lahti, was awarded in 1997. A 15-year concession term was used for this road widening, operations, and maintenance contract. The project was financed by Finnish banks. After this, no new transactions were pursued until early 2004, when the Finnish Roads Agency announced that the €335 million, 50 km E18 Helsinki to Turku road would be procured as a PPP concession. This is the largest road project in Finland. The deadline for expressions of interest was July 2004, and in August the Roads Agency announced that five consortia had been shortlisted. Financial close is scheduled for the end of 2005.

The Scandinavian countries represent challenges for toll road operations. Apart from their difficult terrain and topography (and the related need for a multitude of bridges and tunnels), the large distances involved, combined with low traffic volumes, make stand-alone toll financings economically unviable. The Norwegian and the Finnish experience demonstrates, however, that appropriately structured toll road transactions can work and attract the attention of international contractors and investors.

Central and Eastern Europe

The toll road sector in Central and Eastern Europe reflects a spectrum of development activity. Some countries, such as Poland and Hungary, have active PPP concession programs, while Bulgaria or the Baltic States have no current toll road aspirations. The remainder of this commentary excludes countries that have yet to establish road concessions, save for pointing out that they serve to highlight the particularly heterogeneous nature of the region. Serbia, for example, is not developing road concessions because domestic traffic volumes do not justify such an approach. Slovenia, on the other hand, is not developing road concessions because its strategic road network is largely complete.

Croatia.

In 2003, Croatia successfully awarded its first DBFO toll road concession to Bina-Istra, the Bouygues S.A.-led consortium. Bina-Istra is financing, constructing, operating, and maintaining Phase 1B of the Istrian Motorway Project. The Bina-Istra transaction represented the first infrastructure project bond in Central and Eastern Europe. At the heart of the financial structure lies a financial contribution from the Croatian government, administered through an annually replenishing debt-service reserve account. The financial contribution, after deducting toll revenues, covers all of Bina-Istra's operations and maintenance costs and debt-service obligations, and guarantees a fixed return for equity investors. The Bina-Istra transaction perhaps represents a model for financial structuring that could be replicated across Central and Eastern Europe.

Hungary.

Hungary's unfortunate experiences with its early PPP toll road concessions in the 1990s are well documented and useful lessons were learned, of benefit to Hungary and the region as a whole, both then and now. In summary,

Hungary attempted to develop domestic toll road concessions with little or no financial involvement from the state--and failed. On the M1 and M15 motorways, for example, high toll tariffs led to traffic and revenue performance well below projections, and the legislative framework exposed the concessionaire to a successful legal challenge resulting in capped tariffs. High toll tariffs were also an issue on the M5 concession, resulting in the introduction of a comprehensive discount program and state compensation for the concessionaire.

Ten years later, Hungary is advancing its new portfolio of toll road concessions. The payment mechanism reflects asset availability (the largest component of the mechanism), safety performance, and truck use.

The failure of the early Hungarian road deals served to underscore the fact that drivers' willingness to pay was such that few, if any, fully stand-alone toll road projects in developing and transitioning economies would prove to be viable. Active, strong, and sustained government involvement will continue to be an essential element of any similar transaction structure.

Poland.

In late 2000, Poland signed a concession agreement for the construction of its first DBFO toll road: the 150 km Nowy Tomysi-Konin section of the A2 motorway. The A2 is an important strategic route linking Western and Central Europe. Subsequently, 61 km of the A4 between Katowice and Karkow was tolled under a DBFO procurement model.

In August 2004, the Polish Ministry of Infrastructure announced that it had signed a 35-year concession agreement with a Skanska-led consortium to construct and operate the €500 million A1 motorway project from Gdansk to Torun. Bids have also been received for the second concession on the A4 motorway (Katowice-Wroclaw) and are under review. In the longer term, the Ministry of Infrastructure is known to favor the DBFO model for the completion of the A2, A4, and A1 motorways.

There have been some legislative hurdles to the rollout of PPP-type concessions in Poland. Polish law makes it difficult for the government to make contributions to projects developed as private concessions. Poland's early focus on tolling some of its busier motorway sections is a consequence of this difficulty. Revised PPP legislation is being prepared to broaden the applicability of concession-based schemes in Poland.

Romania.

Although Romania appears to be pursuing PPPs as a procurement alternative, existing tendering and best practice issues may continue to act as barriers to inward private sector investment.

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