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EUROPEAN TOLL ROADS: PRIMER SERIES (PART ONE)

Mihir Trivedi
Analyst, Construction/Infrastructure
CreditSights

Andrew Belton
Head of Basics and Infrastructure
CreditSights

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Executive Summary

- In the first of three Primers to relaunch coverage of the European Toll Road Sector, we present an overview of the sector, along with profiling the key participants in the space, which is concentrated on France, Italy, Spain & Portugal.
 - In our second primer we will examine what makes a strong Toll Road credit, and in the final piece review Sector Relative Value and assign formal Recommendations.
 - The Toll Road sector is an important sector to the bond market, accounting for 1.5% of the market value of EUR Investment Grade paper and 1.2% of EUR High Yield paper.
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Introduction

CreditSights is set to relaunch coverage of the European Toll Road Sector, which will be through a series of three primers. This first in this series will present an overview of the sector, the main geographic territories involved, and a profile of the key players in the market. In our second primer, we will analyse what makes a strong a Toll Road credit, and in the third piece we discuss relative value and assign formal Recommendations.

The Toll Road sector remains a key component of both the European Investment Grade and High Yield BAML index. Transportation issuance accounts for 5% of the European Investment Grade BAML Index, which is sub-divided into Transportation Infrastructure and Services (52% of the 5%), Rail (30%), Trucking & Delivery (16%) and Air Transportation (2%).

The ten issuers in the Toll Road sector have 70 outstanding Investment Grade bonds. These bonds have a cumulative face value of €46.5 bn, which constitutes 59.5% of the Transport Infrastructure and Services sector, a category that also includes European airport issuers. Toll Road paper also accounts for 30.6% of the wider Transportation segment, and 1.5% of the wider EUR Investment Grade Index. The top four issuers (Abertis, Autostrade, APRR and ASF) account for 66% of total IG Toll Road issuance.

EUR Investment Grade BAML Index Breakdown		
	Face Value (EUR mn)	No. of bonds
EUR Investment Grade Index	3,021,148	4,176
Transportation	151,601	224
Transport Infrastructure/Services (incl. Toll Roads)	78,076	125
Rail	45,800	61
Trucking & Delivery	23,975	34
Air Transportation	3,750	4
Toll Road Issuer		
Abertis Infraestructuras SA	9,174	13
Autostrade per l'Italia S.p.A.	7,800	11
APRR	7,300	13
Autoroutes Du Sud De La France (ASF)	6,325	8
Holding d'Infrastructures de Transport (HIT)	4,450	7
ASTM S.p.A.	3,550	4
Transurban Finance Company Pty Ltd.	3,350	6
Cofiroute	3,000	4
SANEF	900	2
Brisa - Concessao Rodoviaria S.A.	600	2
Total	46,449	70
<i>% of EUR IG Index</i>	<i>1.5%</i>	
<i>% of Transportation Sector</i>	<i>30.6%</i>	
<i>% of Transport Infrastructure/Services</i>	<i>59.5%</i>	

Source: CreditSights, BAML Index

Toll Road issuance in the EUR BAML High Yield index tallies €4.75 bn, accounting for 1.2% of the overall index and 29.1% of the Transportation sector. The five outstanding bonds are dominated by bonds in the same structure in Mundy's (€2.75 bn outstanding) and Abertis (€2.0 bn outstanding). We note that the two Abertis bonds in the High Yield index are hybrids.

EUR High Yield BAML Index Breakdown		
	Face Value (EUR mn)	No. of bonds
EUR High Yield Index	412,111	726
Transportation	16,305	25
Transport Infrastructure/Services (incl. Toll Roads)	8,130	13
Air Transportation	6,575	10
Rail	850	1
Trucking & Delivery	750	1
Toll Road Issuer		
Mundy's	2,750	3
Abertis Infraestructuras SA	2,000	2
Total	4,750	5
<i>% of EUR High Yield Index</i>	<i>1.2%</i>	
<i>% of Transportation Sector</i>	<i>29.1%</i>	
<i>% of Transport Infrastructure/Services</i>	<i>58.4%</i>	

Source: CreditSights, BAML Index

What is a Toll Road?

A toll road is a public or private road for which a fee is charged for passage. It can be managed publicly or privately (through concession agreements) and are usually constructed using Public-Private Partnerships (PPP). The fees levied on the user of the road are used to recoup the costs of road construction, maintenance of the road and for private companies, to make profit. The fees collected from tolls are used to repay long-term debt which was issued to finance the initial construction of the project in question.

The process of charging tolls makes it feasible to undertake sizable infrastructure projects which are financed directly by their users, which prevents a government and taxpayers from the need to subsidise the project. In the same light, the revenue generated can make expansion (additional lanes and bridges) and maintenance projects (resurfacing, lighting, inspections) possible so the toll road can be both optimised and modernised.

Tolls can be charged as time-based fees or distance-based fees and can be used to control the flow of traffic and the number of vehicles to tackle forms of negative externalities, such as air pollution and greenhouse gas emissions. A growing share of tolls can be collected automatically using electronic toll collection equipment which automatically communicates with the user's transponder or can use automatic vehicle registration scanners. Alternatively, manual toll collection works in the form of toll booths and barriers.

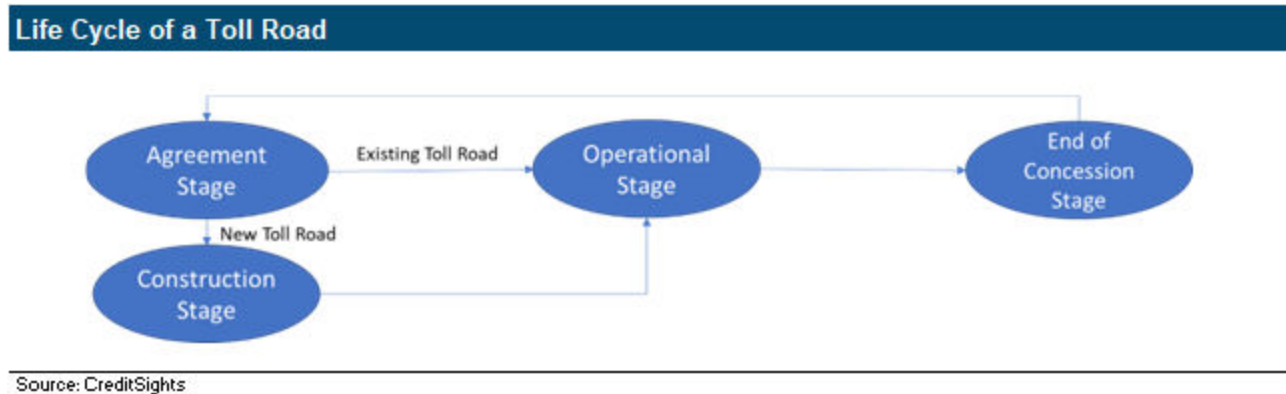
To limit the pricing power on the concession operator, the maximum chargeable tolls vary between individual concession contracts. This could be through the use of either Regulatory Asset Base (RAB) components in the pricing component, or inflation-linked capping, which also provide some flexibility to increase prices as a proportion to the amount spent on the network and the increase in prices.

Users of the toll road also reap benefits such as faster, more efficient travel due to a guaranteed minimum quality and safety standard, potentially resulting in operational cost savings compared to slower alternative routes.

Life Cycle of a Toll Road:

A toll road asset is agreed, built and operated before being reverted back to a public sector authority **leaving the toll road operators exposed to strong asset reversion risk and little asset protection**. The chances of the operator successfully re-tendering with the government and is subject to negotiation, providing additional risk.

This can be summarised in the chart below:



Agreement Stage: This stage initiates when a public sector authority and a private sector entity agree on the concession terms. The agreement covers a wide range of topics, such as the concession duration, toll rates, development, construction and safety standards, maintenance requirements, and procedures for transferring the asset back to public control when the concession period concludes. This stage commences with the public entity issuing a Request for Proposal (RFP) which invites private companies to submit project plans. The RFP details the project scope, the concessionaire's responsibilities, and evaluation criteria. After assessing multiple RFPs, the public entity evaluates the best in terms of financial feasibility, the private entity's technical capacity, and the proposed project approach. Negotiation follows, considering the concession length, concessionaire's rights and responsibilities, payment terms, and contract termination conditions. After agreeing during the negotiation phase, the contract is typically reviewed by both parties with legal advisors and then forwarded to the relevant authorities, often government bodies, regulatory agencies, and in some cases, the public. This stage concludes with a signed contract.

Construction stage:

In this stage, the private company (or a contractor it hires) constructs the toll road according to the specifications in the concession agreement.

The process begins with architects and engineers designing the road and scheduling the construction process, including environmental assessments, land surveys, and acquiring necessary land after securing requisite permits. After site clearance, earthwork is laid, involving excavation and soil moving to prepare the ground for road/tunnel/bridge construction. The roadbed is prepared to ensure a stable base, with layers of larger aggregate placed on top and finished with an asphalt or concrete layer for roads. Finally, toll booths and electronic toll collection systems, signs, lighting, and road safety features are installed, followed by comprehensive testing, and then finally opening the road to the public.

Operation stage:

Following the building and opening of the toll road, the concessionaire operates and maintains the road. This includes collecting tolls, providing roadside assistance, and performing routine maintenance and repairs. The private company collects tolls from road users. This revenue is used to cover the company's costs and to provide a return on its investment. The public sector authority may also receive a share of the revenue, depending on the terms of the concession agreement.

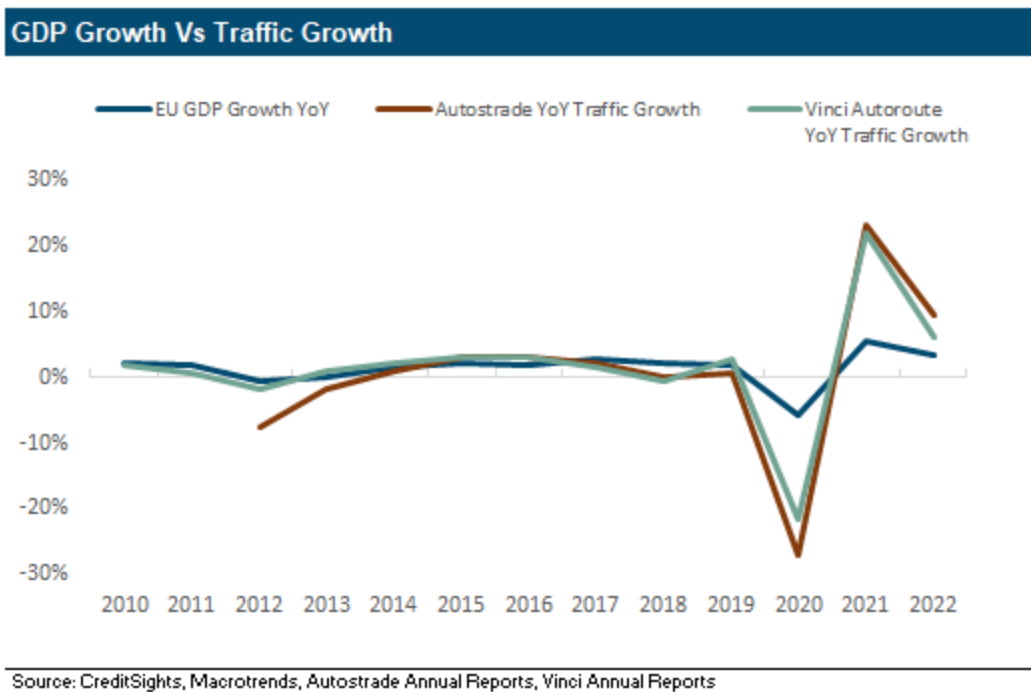
Other roles and responsibilities of the concessionaire as per the contract at its own expense is to carry out the technical management of the infrastructure asset, ensure infrastructures remain operational by carrying out maintenance and timely repair, improve and expand on the asset through network adjustment work.

End of concession stage:

At the end of the concession period, control of the toll road typically reverts to the public sector authority as per the terms specified in the concession agreement. The end of the concession period can often lead to a retender for the asset.

The Sector Overview

The toll roads sector and its underlying traffic volumes are materially impacted by macroeconomic factors. Sector revenues are primarily influenced by a mix of traffic trends and changes in tariffs. Traffic growth has a strong correlation with GDP growth. Consumer spending heavily influences light vehicle traffic, while manufacturing production and exports affect heavy vehicle traffic.

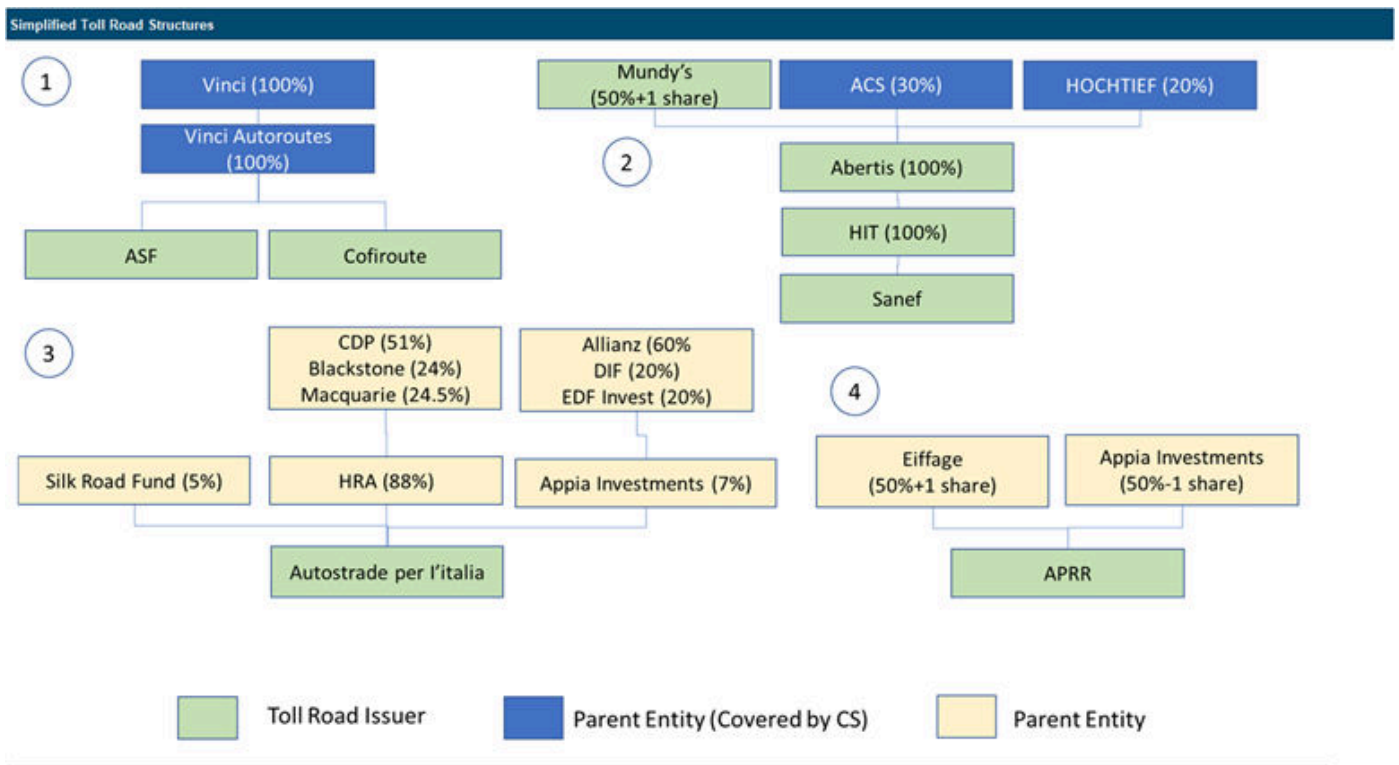


In Europe, the toll road sector consists of a number of operators managing multiple concessions across various jurisdictions, both within Europe and globally. Toll roads across Europe remains more of a mature market, compared to emerging and developing countries, and such, prospects for traffic growth remains limited. In contrast, the quality of infrastructure broadly remains higher in Europe compared to in Emerging markets, albeit with certain exceptions.

There is a degree of interconnection between these toll road operators, who often operate under "Holdco" and "Opco" structures, with debt issued at multiple levels. The diversification among the main players in the toll road sector is not just geographical, but also operational, as TROs are also frequently linked to, or owned by, larger construction conglomerates (such as Vinci or ACS). They exhibit varying degrees of diversification into more cyclical activities such as construction and services.

Below we outline the key structures in the European Toll Road sector.

1. French construction conglomerate **Vinci**, operates a toll road segment labelled 'Vinci Autoroutes', which is a leading motorway operator in France, consisting of toll road subsidiaries **ASF**, **Cofiroute**, Escota, Arcour and Arcos which together span the western and southern districts in France. Paper within the toll road opcos is issued primarily at the ASF level via public and private placements, but also at the Cofiroute level.
2. **Mundy's** (previously known as Atlantia), is an Italian Holding company that operates within the airport and motorway infrastructure sector, as well as the mobility services industry. The majority of the company, 57%, is owned by an SPV under the control of Schemaquarantadue S.p.A., which is predominantly owned by Edizione, a holding company chaired by Alessandro Benetton. Additionally, Blackstone has a 38% stake in the Mundy's Group. Mundy's itself owns just over half of **Abertis**, a global toll road operator that is also 30% owned by Spanish construction giant **ACS**, and 20% through German contracting subsidiary **HOCHTIEF** (both recently initiated on by CreditSights). Abertis is the parent company of **HIT (Holding d'Infrastructures de Transport)**, a French holding company. HIT owns **Sanef**, a French toll road operator primarily active in the Northeast of France. Debt securities are issued at each level of this structure, including Mundy's, Abertis, HIT, and Sanef.
3. **Autostrade per l'italia** (ASPI) is majority owned (88%) by Holding Reti Autostradali S.p.A. (HRA), an investment vehicle incorporated in Italy owned by CDP Equity (51%), Blackstone Infrastructure Partners (24.5%) and Macquarie Asset Management (24.5%). HRA reached an agreement with Atlantia in 2021 to acquire its equity interest in ASPI for €8.2 bn, which was almost four years after the collapse of a Morandi bridge run by Autostrade in Genoa, which killed 43 people.
4. **APRR** is majority owned by French civil construction company Eiffage (50% + 1 share) and Appia Investments (50% minus one share).



Source: CreditSights

5. **Autostrade Torino-Milano (ASTM)**, an industrial group operating with sectors relating to motorway management, large infrastructure engineering and construction projects is majority owned by Nuova Argo Finanziaria S.p.A (85%), with the remaining 15% held in treasury shares. Nuova Argo Finanziaria S.p.A is controlled by Aurelia (50.5%), a holding company for the Gavio family, and co-owned by Ardian capital (49.5%) through Mercure Investment and Mercure Holding.

6. Finally, **Brisa Concessao Rodoviaria (BCR)** is 70% owned by Brisa Auto-Estradas de Portugal S.A and 30% owned by Global Roads Investimentos SGPS. Brisa Auto-Estradas de Portugal S.A is 81% owned by a consortium involving APG, the National Pension Service of the Republic of Korea and Swiss Life Asset Managers.

European Toll Road Model vs. U.S Toll Road Model

North America and Europe represent more than two thirds of the global toll road revenues, as stated in a 2022 [report](#) by consultancy firm Roland Berger. However, the US toll road model differs distinctly from the European one due to both funding structures and geopolitical factors.

Financing:

The methods of toll road financing often differ across regions due to variations in regulatory frameworks, market structures, and business practices. In the United States, financing for toll roads is typically managed at the individual project level. This approach, known as "Project Finance," treats each project as a separate financial entity, often through Special Purpose Vehicles (SPVs), allowing for effective risk management. Additionally, federal budgets in the US, approved in a decentralised fashion, significantly support these projects. This setup facilitates the establishment of funding mechanisms and fosters improvements, especially given the relatively mature toll road network in the US compared to newer networks in Europe.

The Pennsylvania Turnpike is a toll highway operated by the Pennsylvania Turnpike Commission (PTC) in the U.S. This toll road stretches across the state, connecting various major cities and regions. The commission often finances its operations and projects through the issuance of bonds, including the Senior Lien Turnpike Revenue Refunding Bonds. These bonds are backed by the revenue generated from the tolls collected on the turnpike. The PTC issued \$400 mn in senior turnpike revenue refunding bonds in August 2023 to fund its FY24 capital plan and refinance both existing bonds and its EB5 Loan Tranche 2. Fitch Ratings [notes](#) that PTC's turnpike debt is relatively high at \$6.5 bn on the senior lien and \$13.7 bn in total, expected to continue to rise.

In contrast, Europe commonly employs a different approach, where toll road financing is conducted through a corporate structure, either at the holding company level or at an operating company level. Under this model, the parent or holding company raises funds and subsequently distributes them among its various subsidiaries or projects. This method offers enhanced financial flexibility and risk diversification as the performance of a single project does not directly influence the financing of the others. The Toll Road sector in Europe has a much larger proportion of this type of funding than the US, with only a few small examples of project-level capital markets funding such as Salerno Pompei Napoli (Fitch: BBB on the senior secured notes) and Societa di Progetto Brebemi (Fitch: BB+ on the senior secured notes).

Operating model:

The cross-state nature of some US-based toll roads means it is more feasible for separate sections of the toll road to be operated by different entities and funded by separate federal budgets. In Europe, most toll road networks do not cross borders and a toll road concession is generally operated by one entity in its entirety (albeit that some Groups own TROs in several territories, eg Abertis / Atlantia (the forerunner of Mundy's) historically).

In the US model, each major section of a given the toll road is operated by a separate entity, as opposed to in Europe where the length of a single toll road is operated and maintained by one controlling entity. Toll roads are a way for states to fund infrastructure without raising taxes, with the tolls used for maintenance, operation and expansion. Toll activities in the US are based on road, bridge and tunnel activity controlled by either state level authorities or private companies with concession agreements. They are more common in some states than others with a high concentration in Central/Eastern states like Florida, Texas, New York, and Illinois, but less common in many western states.

In Europe, each country has its own system for toll roads. For example, France, Italy, Spain, and Portugal have extensive tolled motorway networks, while countries like the UK and Germany have very few toll roads. Both public and private entities operate toll roads in Europe. In some countries, the government operates the toll roads, while in others, private companies operate the roads under government oversight.

European Toll Road Issuers

European Toll Road Issuers					
Name	Ticker	Country	Parent company	KM of network ¹	Credit rating (M/S/F)
Mundys (Atlantia)	ATL IT	Italy	Edizione (Benetton family) & Blackstone	9,125	Ba1/BB+/BB+
Abertis	ABESM	Spain	Mundys	8,000	NR/BBB-/BBB
Autostrade per l'Italia (ASPI)	ATOSTR	Italy	Holding Reti Autostradali	3,000	NR/BBB-/BBB
ASF	DGFP	France	Vinci	(ASF - 2,730, Escota 471)	A3/A-/NR
APRR	APRR	France	Eiffage	2,424	NR/A-/A
Sanef	SANEF	France	Abertis	1,800	NR/BBB-/BBB
ASTM (Autostrada Torino-Milano)	ATIM	Italy	Gavio family and Ardian Infrastructure	1,420	Baa3/NR/BBB+
Cofiroute	DGFP	France	Vinci	1,111	NR/A-/NR
Brisa	BCR	Portugal	Brisa Auto-Estradas de Portugal S.A.	1,100	Baa1/NR/A-
HIT (Holding d'Infrastructures de Transport's)	HITTFP	France	Abertis	Holding Company	NR/BBB-/BBB

Source: CreditSights
¹ - HIT and SANEF combined.

European Toll Road Issuers	
ASF (Autoroutes du Sud de la France)	Part of Vinci Autoroutes since 2006, which is the largest toll road operator in France. ASF operates in the South of France, with its network consisting of ~2,730 km of highways. The ASF Group also controls Escota. Concession date through to 2036.
Cofiroute	Part of Vinci Autoroutes since 2014, which is the largest toll road operator in France. The company operates concessions totalling ~1,100 kilometers of motorways in western France and the A86 Duplex tunnel in the Paris region. Concession date through to 2034.
Mundys (Atlantia)	Mundy's (formerly Atlantia - changed in March 2023) is an Italian HoldCo, operating in the motorway and airport infrastructure and mobility-related services industry. It operates 44 concessions in 11 countries, with tolling services in 23 countries and 5 airports managed. Abertis generated 69% of Mundy's FY22 revenue.
Autostrade per l'Italia (ASPI)	ASPI manages ~3,000 km across 15 regions in Italy. The group includes four other motorway concession companies and eight companies that provide ancillary services to the core motorway business. Autostrade is majority owned (88%) by Holding Reti Autostradali S.p.A. (HRA), an investment vehicle incorporated in Italy owned by CDP Equity (51%), Blackstone Infrastructure Partners (24.5%) and Macquarie Asset Management (24.5%).
Abertis	Headquartered in Spain, Abertis operates some 8,000 km of toll roads in 15 countries across Europe, America and Asia. The group is owned by Mundy's, ACS and HOCHTIEF.
HIT (Holding d'Infrastructures de Transport's)	Headquartered in France, HIT is a Holding company and through its subsidiaries constructs and maintains highways, roads, bridges and tunnels. HIT is the holding company for Sanef and is a subsidiary of Abertis. The majority of the debt in the HIT/Sanef structure is issued at the HIT level.
Sanef	Headquartered in France, Sanef is a 100% owned subsidiary of HIT, which is owned by Abertis. SANEF's activities exclusively focus on a core toll road network in north-eastern France. Its 1,800km of motorways under direct management are the third-largest toll road network in France, just below 20% of the national system.
Brisa	Brisa is a toll road operator, which operates motorway concessions, mobility technologies, vehicle services and payments both in Portugal and internationally. Brisa Concessão Rodoviária (BCR) is a company of the Brisa Group that manages the main road concession in Portugal. BCR operates ~40% of Portugal's toll road network under a concession expiring in 2035. The length of the network subject to concession is ~1,100 km and BCR is 70% held by Brisa. The network operated by Brisa comprises 14 motorways, 6 complementary routes and 6 national roads
APRR	Located in the east of France, APRR is France's second largest toll road network (by KM) spanning 2,424 KM. It provides critical connectivity between major French cities, including Paris and Lyon, and access to France's major trading counterparts. APRR is currently jointly owned by MAF Group and Eiffage. Atlas Arteria's interest in APRR is held through the MAF Group. APRR comprises four concessions: the APRR Concession, the AREA Concession, the A79 Concession and a minority interest in the ADELAC Concession.
ASTM (Autostrada Torino-Milano)	ASTM is the second largest toll road operator in the world by distance of roads under concession (6,200 km in Italy, Brazil, US and UK). Specifically, the group has a strong presence in North-West Italy with ~1,420 km of network under concession.

Source: CreditSights

Major Toll Road Networks in European Countries

Below we outline the key players and characteristics of toll road operations in France, Italy, Spain and Portugal. Each of the four countries have multiple toll road operators, which specialise in different sections of the country.

The regulatory framework in each country however differs. Toll road framework in France permits the operator to increase at 70% of the CPI inflation rate. In Italy, the toll road system is regulated by the National Tariff System for Highways, under the supervision of the Transport Regulation Authority. It generally uses a Regulatory Asset Base component where the return is typically based on the cost of capital, which is influenced by inflation and other economic factors. In Spain, around 30% of highways are toll roads, with the European Commission recently rejecting a proposal for all motorways to become paid toll roads in 2024.

France

Key Toll Road Operators In France			
Company	Majority Owned by	Region in France	KM of Network
ASF	Vinci Autoroutes	South	2,730
APRR ((Autoroutes Paris-Rhin-Rhône)	Eiffage	East	2,424
Sanef	Abertis	North	1,800
Cofiroute	Vinci Autoroutes	West / Southwest	1,111
AREA (Société des Autoroutes Rhône-Alpes)	APRR	East	429
Escota	ASF	Southeast	471
ATMB (ATMB Autoroutes et tunnels du Mont-Blanc)	French Government	Mont Blanc Tunnel	130
ALEBA A150	DIF Infrastructure	North	18

Source: CreditSights

Autoroutes, which are the French equivalent of toll roads, are an integral component of the French road infrastructure. These autoroutes span the country, with each section of the country operated by a different concessionaire. The toll fee fluctuates based on the distance covered and the type of vehicle driven.

While toll roads are prevalent in France, there exist alternatives for travel. Numerous dual carriageways stretch from the North to the South of the country, providing toll-free travel options, albeit at the cost of extended travel time. In total, France's major roads are dotted with over 90 toll booths.

Multiple payment methods are available for drivers using French toll roads. For manned toll roads, payment can be made via card or cash. Despite most toll booths across the country being automated and unmanned now, some of the more heavily trafficked autoroutes still offer manned booths. In addition to these options, drivers can opt to prepay through 'Telepeage', a payment method favored by most autoroute companies. Toll fees are determined based on the weight and type of the vehicle, falling into one of five categories, each with its corresponding price.

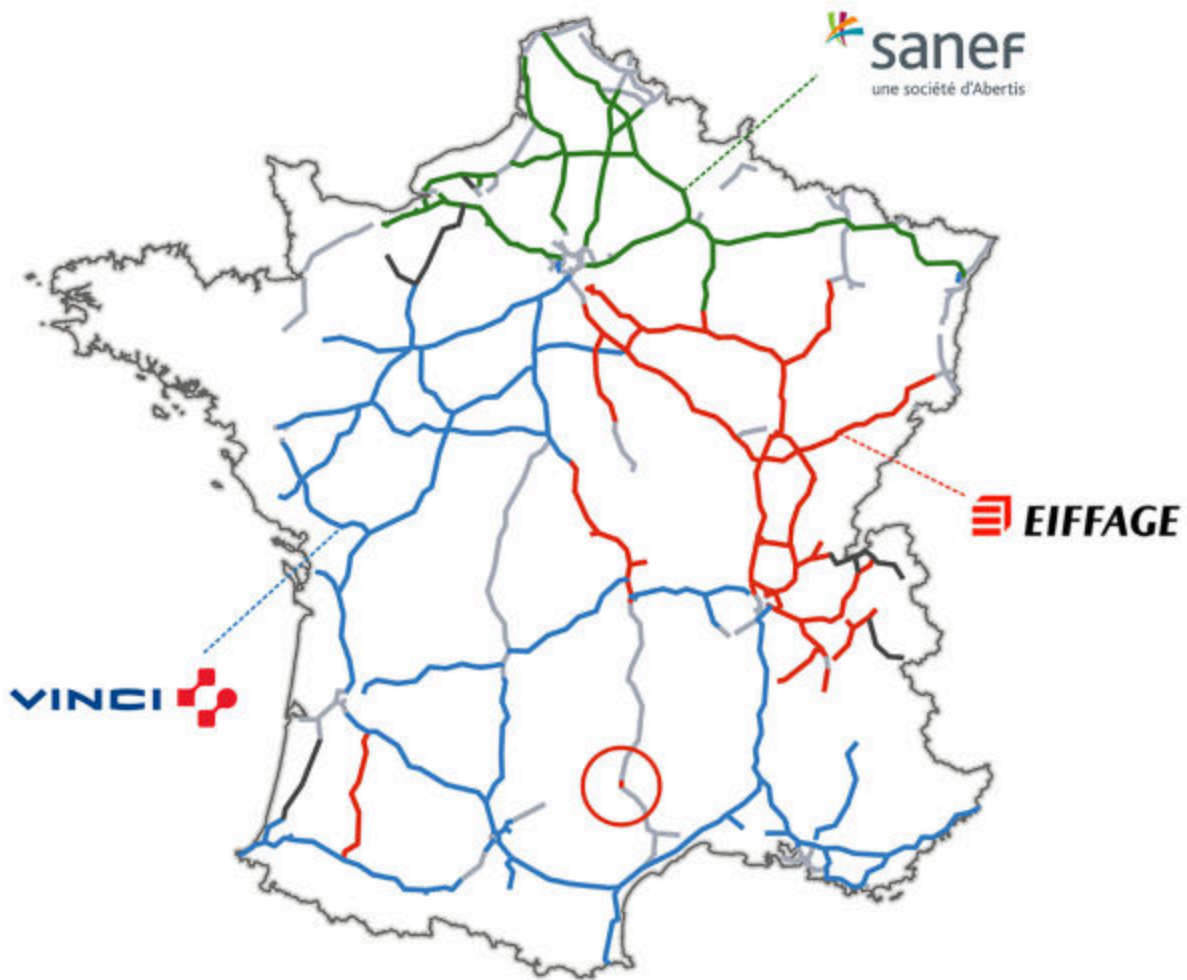
The South and Western corridor of France is serviced by Vinci Autoroutes. The South is operated by Vinci's toll road subsidiary **Autoroutes du Sud de la France (ASF: owned by Vinci)**, which operates 2,730 km of toll roads through Toulouse, Montpellier, Lyon, Nantes and Bordeaux. ASF's subsidiary Escota operates a further 471 km in South-East of France, which covers Monaco, Marseille and Nice.

Vinci Autoroutes also operates subsidiary **Cofiroute** which operates a further 1,111 km of toll roads in the upper Eastern and Central regions in France, with its network spanning from Paris to Nantes.

The North of France is operated by **Sanef (owned by Abertis)** with its network operating from Calais to Paris and across the France — Belgium border to Strasbourg.

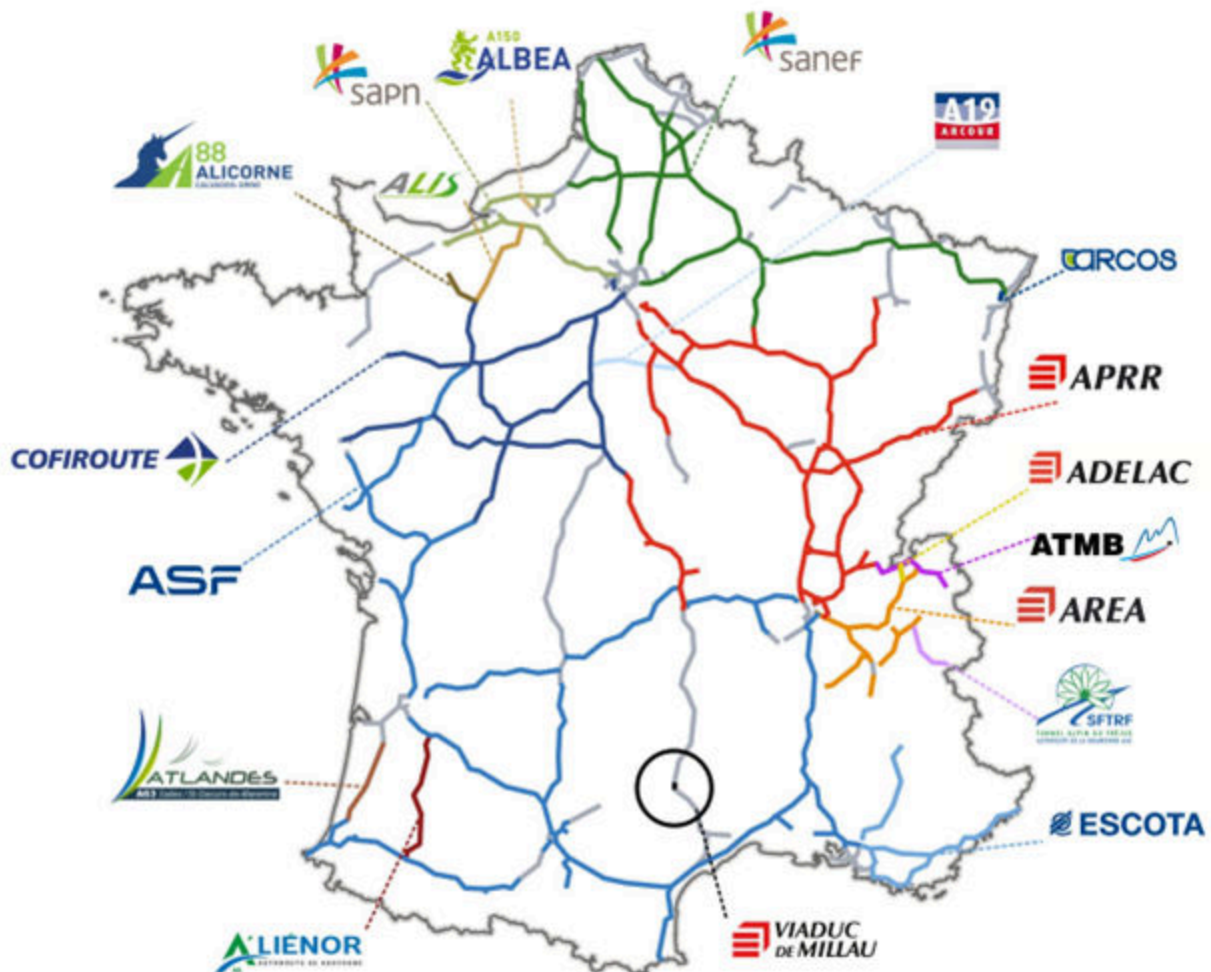
The Central Eastern corridor in France is operated by **APRR (owned by Eiffage)** and subsidiaries, which is jointly owned by Eiffage and the MAF Group. The network spans from Paris through Dijon and down to Lyon and Geneve.

French Toll Road Network By Holding Company



Source: CreditSights, Autorite Transports

French Toll Road Network By Subsidiary



Source: CreditSights, Autorite Transports

Whilst the French government does not directly set toll rates, it plays a significant role in regulating and ensuring that they are fair for road users. The toll rates are agreed upon in the concession contracts between the French government and the private companies. The contracts include formulas for how the toll rates can be adjusted over time, usually tied to inflation and other economic factors.

The French government regulates the toll road network through the Ministry of Transport, who monitors and polices the private companies, ensuring they are operating as per their outlines in their concession contracts. This includes, but is not limited to, monitoring the toll rates to ensure they are in line with the pre-determined formulas.

Toll Road operators in France, led by Vinci, APRR and Sanef raised tariffs by 4.75% on average in February 2023, in line with their contractual formula which allows tariffs to be lifted by 70% of CPI. It is however noted that there are discretionary discounts available to toll road operators who offer discounts on frequent travellers and energy efficient electric vehicle users.

In his more recent presentation of the 2024 budget in September 2023, Finance Minister Bruno Le Maire proposed increasing revenues by levying higher taxes on businesses that contribute significantly to pollution. Consequently, both toll road operators and airports are set to be affected by this change, which is projected to generate an additional €600 million annually. Based on Vinci Group's 2022 revenue levels, the entities impacted (ASF, Cofiroute, Escota, and Aéroports de Lyon) could potentially face an extra charge of approximately €260 million for the fiscal year. This

charge predominantly impacts the motorway concession companies. Vinci, however, plans to challenge this on the basis that the new tax contradicts the terms of the signed concession contracts. Additionally, the tax on the highest carbon-emitting vehicles will be strengthened under its ongoing disincentive program. This could potentially affect near-term demand projections and result in reduced traffic levels.

Toll Roads in Italy

Key Toll Road Operators In Italy			
Company	Majority Owned by	Region in Italy	KM of Network
Autostrade per l'Italia	Mundy's	Various	3,000
ASTM	Gavio family (60%) and Ardian Infrastructure (40%)	Northwest	1,420
Anas	Italian Ministry of Economy and Finance	Various	1,310
Strada dei Parchi	Toto Holding	Central	280
Mundy's	Edizione S.p.A	North	236
Autovie Venete	Italian public entities	Northeast	111

Source: CreditSights

In Italy a large share of the highway and motorway network are toll roads and are called **autostrada** (singular) and **autostrade** (plural). The Italian toll roads form a network and the toll levied on the consumer is proportionate to the distance travelled, which is calculated by an automatic toll collection device (Telepass OBU) or from a paper ticket which is picked up when entering the motorway and returned to upon exit. It is however possible to avoid using the autostrade by using alternative, slower long roads such as the Strade Statali in Italy.

Italian toll-road tariffs are mostly set using a Regulatory Asset Base system (RAB), which allows annual tariff adjustments based on various inputs, including a review of a concessionaire's revenues and costs, as well as a forecast inflation in the government budget for the following year. The overseeing of toll roads in Italy is overseen by several governmental and regulatory bodies including the **Ministry of Infrastructure and Transport (Ministero delle Infrastrutture e dei Trasporti)** the main governmental department responsible for infrastructure and transportation in Italy, including highways, the **Regulatory Authority for Transport (Autorità di Regolazione dei Trasporti, or ART)**, overseeing economic regulation and competition in the transportation sector, including toll roads. It has the power to set rules, monitor compliance, and impose sanctions, and finally the **CIPE (Interministerial Committee for Economic Planning)** approving the toll tariffs proposed by the motorway companies.

The Morandi Bridge collapse in Genoa, Italy, in August 2018, which resulted in 43 fatalities, prompted a significant shift in Italy's infrastructure management and regulatory framework. This included stricter oversight and more rigorous inspection, re-evaluation of Public-Private Partnerships, new safety regulations and increased investment in infrastructure. The **Genoa Decree** was a measure approved by the Italian government following the incident which was introduced to help speed up the reconstruction process and handling emergency situations.

1. Autostrade per l'Italia

In Italy, ~65% of the vehicle KMs travelled on the autostrade is handled by the "Autostrade per l'Italia S.p.A." (ASPI) and its subsidiaries (according to Aiscat [data](#) - the Association of motorway and tunnel concessionaire companies operating in Italy). Autostrade is one of the leading concessionaires in Europe with ~3,000 km of network managed in Italy and operate in 15 regions. The group includes four other motorway concession companies and eight companies that provide ancillary services to the core motorway business.

Among the main highways managed by ASPI includes the A1 (Autostrade del Sole), which is the longest autostrada, operating between Milan in the north to Naples in the south at a length of 750 km, which also services Bologna, Florence and Rome. Other key routes include the A4 (an east-west motorway from Turin to Trieste), the A14 (along the Adriatic coast from Bologna in the north to Taranto in the South) and the A7 (connects Milan with Genoa, a major port city).

The map below shows that Northern and Central Italy is well serviced, with the South of Italy and Sicily scarcely covered. The motorway operators are required to build, operate, and maintain their networks at cost and to cover their expenses from the toll they collect.



Source: CreditSights, Autostrade

2. ASTM

The second largest toll road player in Italy is ASTM (Autostrada Torino-Milano), which operates ~1,420 km of network under concession (~20% of the total Italian Network as per Fitch), predominantly in the North-west of Italy, which is an area that benefits from strong leisure and commercial activity. The group also has an extensive network in Brazil, labelled under its EcoRodovias brand, and operations in the UK and US, with diversified construction related exposure into EPC and Civil projects through Itinera.

Having originally been founded in 1922 to manage the Turin-Milan motorway, which is one of the oldest in Italy, it has since expanded significantly through M&A since 2001 where it took over several other Italian motorway companies including SALT (Società Autostrada Ligure Toscana), which manages the A12 motorway, and the acquisition of a controlling stake in SAV (Società Autostrada Valdostana), which manages the A5 motorway. In 2019, motorway

infrastructure company SIAS completed its merger into ASTM which expanded its network drastically. Some of the major motorways managed by ASTM now include the A21 (Turin-Brescia), A26 (Gravellona Toce-Genoa), A4 (Turin-Trieste), A6 (Turin-Savona), and A7 (Milan-Genoa).

There is however a regulatory pressure which incorporates a cost recovery plus capital remuneration policy following the application of the Transport Authority tariff mechanism. ASTM's tariff increases are subject to approval every five years, with adjustment flexibility a byproduct of, but not limited to inflation and investment.

Compared to ASPI, ASTM's Italian toll road network exposure holds slightly shorter average concessions and has its debt capacity and credit profile impacted by its diversification into the more cyclical EPC business and exposure to Brazil.

ASTM - Italy - Toll Road Network



Source: CreditSights, ASTM

3. ANAS

ANAS (Azienda Nazionale Autonoma delle Strade) is a government-owned company in Italy responsible for the construction and maintenance of Italian roads and highways. Whilst Anas manages a road network of over 30,000 km, its toll road network spans 1,310 km.

Toll Roads in Spain

Key Toll Road Operators In Spain			
Company	Majority Owned by	Region in Spain	KM of Network
Globalvia	PGGM, OPTrust, USS	Various	572
Abertis	Mundy's	Various	561
ENA Infraestructuras	Itínere Infraestructuras	North	468
Sacyr Concessions	Multiple companies with small shareholdings	Various	446
Cintra	Ferrovial	Various	188
OHL Concessions	IFM Investors	Various	-

Source: CreditSights

The motorway network in Spain has over 17,000 km of motorway, of which 30% have tolls and are often referred to as Autopistas, whereas Autovias are always un-tolled roads. Spanish tolls are based on a distance-based charge and are compulsory for driving a motor vehicle on certain sections of motorway in Spain. In many cases, there are autovias running parallel to the autopistas, but are typically slower due to lower speed limits and more frequent exits.

The roads belong to the state, although autopistas are built and maintained by private companies under a state concession; when the concession expires, the road reverts to State ownership, although most of them are renewed.

The Ministry of Transport, Mobility, and Urban Agenda is responsible for ensuring that concession companies comply with the terms of their contracts. This includes maintaining the roads to the required standard and providing necessary services.

In Spain, several toll road concessions have ended and not been renewed, which has ultimately resulted in more and more toll roads becoming toll free. Some examples of these roads include AP-7 (toll road running through Catalonia operated by Abertis) in 2019, AP-4 (between Seville and Cadiz operated by Abertis) in 2019, and the AP-1 in 2018 between Burgos and Armiñón, which the Spanish government decided not to renew.

In recent months, the European Commission [rejected a proposal](#) for all Autovias (motorways) to become paid toll roads in 2024, with drivers having to pay to use them. This was a plan to tackle carbon emissions. The plan which was initially put in place in 2021 was thrown out after tough negotiations with the government. To cut on carbon emissions now the country will promote more energy efficient merchandise and public transport travel.

1. The largest toll road operator in the country is Spanish multinational transport infrastructure company **Globalvia**. It is a private company and has been 100% owned since 2016 by OPTrust (Canada), PGGM (Netherlands) and USS (United Kingdom), with no outstanding bonds. The group operates nine concessions in Spain with a total combined length of 572 km (summarised in the table below).

Globalvia Spanish Operations				
Highway	Holding	Length (Km)	Concession Term	Year Awarded
Autopista Central Gallega	81.6%	56.6	75 Years	1999
Concesiones de Madrid	100.0%	14.1	34 Years	1999
M-407	50.0%	11.6	30 Years	2005
Ruta de los Pantanos	100.0%	21.8	25 Years	1999
AG-55 Autoestradas de Galicia	100.0%	32.6	50 Years	1995
AG-57 Autoestradas de Galicia	100.0%	25	50 Years	1995
AP-15 Audenasa	50.0%	112.6	56 Years	1973
AP-66 Aucalsa	100.0%	77.8	75 Years	1975
AP-9 Audasa	100.0%	219.6	75 Years	1973

Source: Globalvia, CreditSights

2. Spain is **Abertis'** largest market and it runs six concessions in the region through Aucat, Castellana, Avasa, Túnel, Aulesa, Trados 45, Abertis Mobility Services. The group directly manages 561 km in the country.

Abertis Toll Road Operations By Country



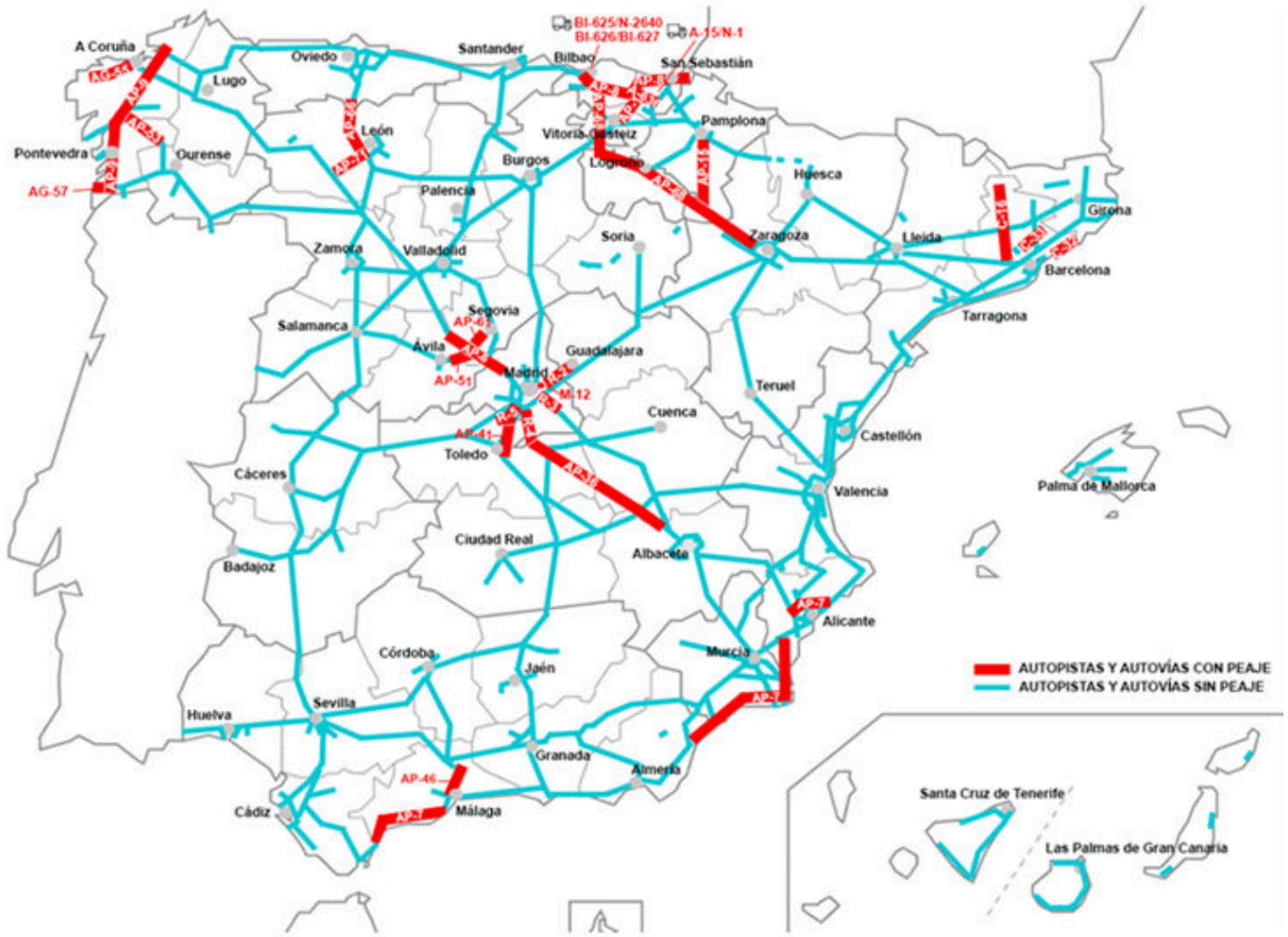
Country	Operations
France	Sanef, Sapn
Spain	Aucat, Castellana, Avasa, Aulesa, Túnel de Barcelona i del Cadi, Trados-45, Autema
Italy	Autostrada BsVrViPd, A4 Trading, A4 Mobility, Globalcar
Chile	Autopista Central, Rutas, Autopista Los Andes, Autopista Libertadores
Mexico	Farac, Coviqa, Conipsa, Cotesa, Autovim
Brazil	Intervias, Litoral Sul, Planalto Sul, Fluminense, Fernao Dias, Régis Bittencourt, Via Paulista
USA	ERC
Puerto Rico	Metropistas, APR
Argentina	GCO, Ausol
India	JEPL, TTPL

Source: Abertis, CreditSights

3. Another Spanish firm in the sector is **Ena Infraestructuras, S.A.**, a major Spanish infrastructure management company belonging to Itinere, a major Spanish infrastructure operating group majority owned by Arcibo Servicios y Gestiones, S.L. ENA owns four companies (Audasa, Aucalsa, Audenasa and Autoestradas de Galicia) operating concessions over 468 km of toll roads located in the north of Spain.
- Sacyr** is a multinational infrastructures and services company based in Spain. It operates in various sectors, including construction, real estate, concessions, and services. The company, although unrated has €329 mn outstanding on its 6.3% March 26s.
 - Cintra** is a subsidiary of Ferrovial), a Spanish highway company with a strong international presence in the US and Canada. In Spain, Cintra's Spanish concessions are A66 (49 km), Aravia (107 km) and Emesa & Calle M-30 (32 km).

The map below shows the Spanish highway network, with the red showing the tolled roads, and the red showing the un-tolled network.

Spain Toll Road Network



Source: CreditSights, administracion.gob.es

Toll Roads in Portugal

Key Toll Road Operators In Portugal				
Company	Majority Owned by	Region in Portugal	KM of Network	Main Networks
Brisa	Brisa - Auto-estradas de Portugal, S.A.	Various	1,100	A1, A2, A3, A5, A6, A8, A9, A10, A12, A13, A14, A16, A30, A31, A33
Ascendi	Ardian	Various	681	A4, A7, A11, A15, A17, A18, A19, A21, A23, A24, A25, A27, A28, A29, A31
Cintra	Ferrovial	Various	268	A22, A28
Lusoponte	Vinci Concessions	2 Bridges - the 25 de Abril Bridge (Ponte 25 de Abril) and the Vasco da Gama Bridge (Ponte Vasco da Gama).	2 Bridges	

Source: CreditSights

In Portugal, the toll road network charges a fixed value per kilometre distance, with the fee varying depending on the vehicle type and regulated by the government. Toll road users can fit an electronic tag to automatically debit the charge linked to the vehicle's registration number, however, day/weekly passes can also be bought.

1. The largest highway network operator in the country is **Brisa Auto-Estradas de Portugal, S.A.** (Brisa), a mobility operator, which operates motorway concessions, mobility technologies, vehicle services and payments both in Portugal and internationally. **Brisa Concessão Rodoviária (BCR)** is a company of the Brisa Group that manages the main road concession in Portugal. BCR operates ~40% of Portugal's toll road network under a concession expiring in 2035. The length of the network subject to concession is ~1,100 km and BCR is 70% held by Brisa. The network operated by Brisa comprises 14 motorways, 6 complementary routes and 6 national roads, which are subject to certain toll-free alternatives.
2. **Ascendi** is the second largest toll road operator in Portugal, with total assets under concession (majority and minority stakes) totalling 681 km. The group is wholly owned by Ardian, a French private investment house.
3. **Cintra** also has operations in Portugal through its Azores and Vialivre assets, which combined have a total length of 268 km.

Brisa Portugal Network



Source: CreditSights, Brisa

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