



47TH ASECAP STUDY & INFORMATION DAYS

A Road Infrastructure Financing

Rating Agency Perspective on Toll Road Financings

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Global Infrastructure & Project Finance, Fitch Ratings
30 May 2019

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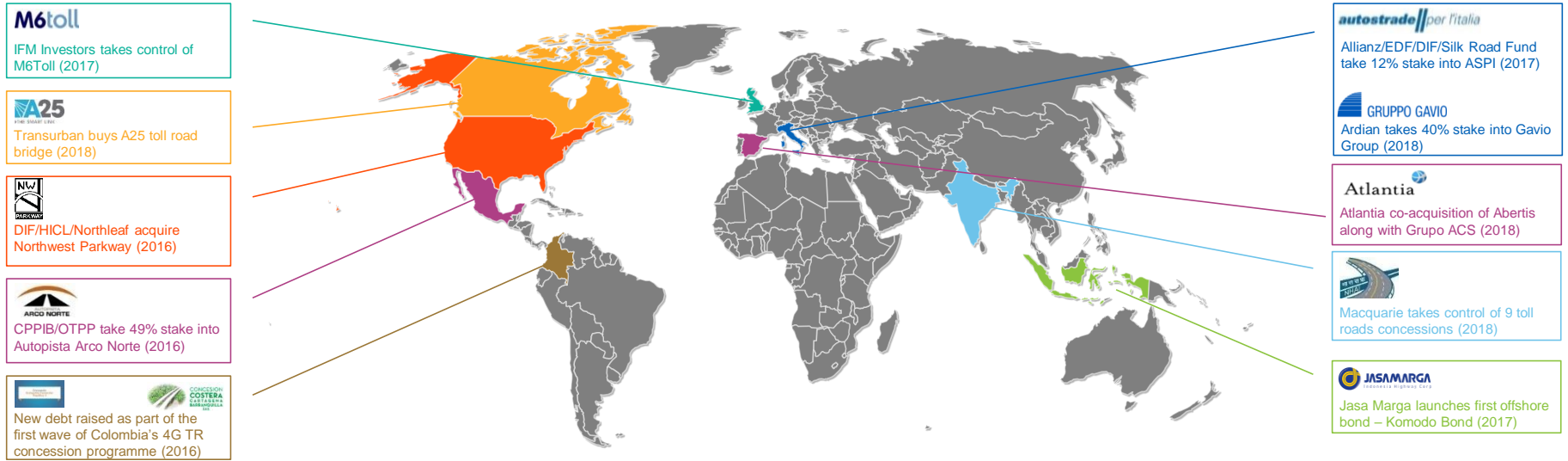
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1

Investors' Appetite for Toll Roads

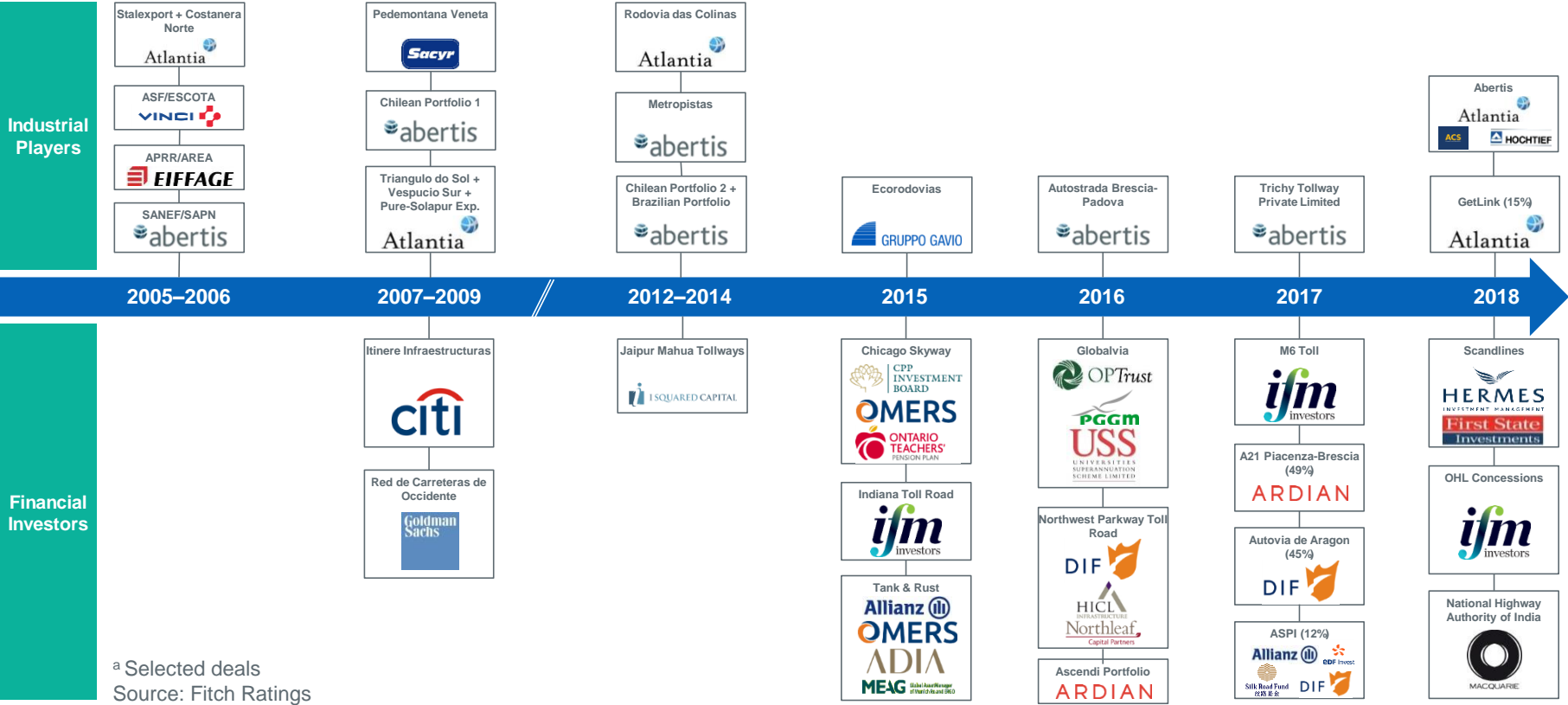
Investors' Appetite Is Alive and Well^a



- International equity and debt investor interest in toll road projects globally has grown over the last decade
 - Limited long-term downside risk of toll roads with a track record, plus attraction of stable, inflation-linked returns
 - Greenfield toll roads remain a challenge for most investors, amid construction and forecasting risks
- Competition to invest, limited supply of core assets and extended period of very low risk-free interest rates has kept equity and debt costs relatively low

^a Selected deals
Source: Fitch Ratings

Financial Investors Bring Competition for Toll Road (Brownfield) Cash Flows^a



Vertical Integration into Construction

Full Integration



The 'Full Integration' section features four logos: EIFFAGE (a red and white striped flag), ferrovial (in orange), VINCI (in blue with a red cross), and GRUPPO GAVID (a blue stylized 'G' logo).

Partnership



The 'Partnership' section features four logos: abertis (a globe icon), Atlantia (a globe icon), ACS (in yellow on a dark blue square), and HOCHTIEF (a blue triangle icon).



Tendering

Technical Knowledge

Local Relationships

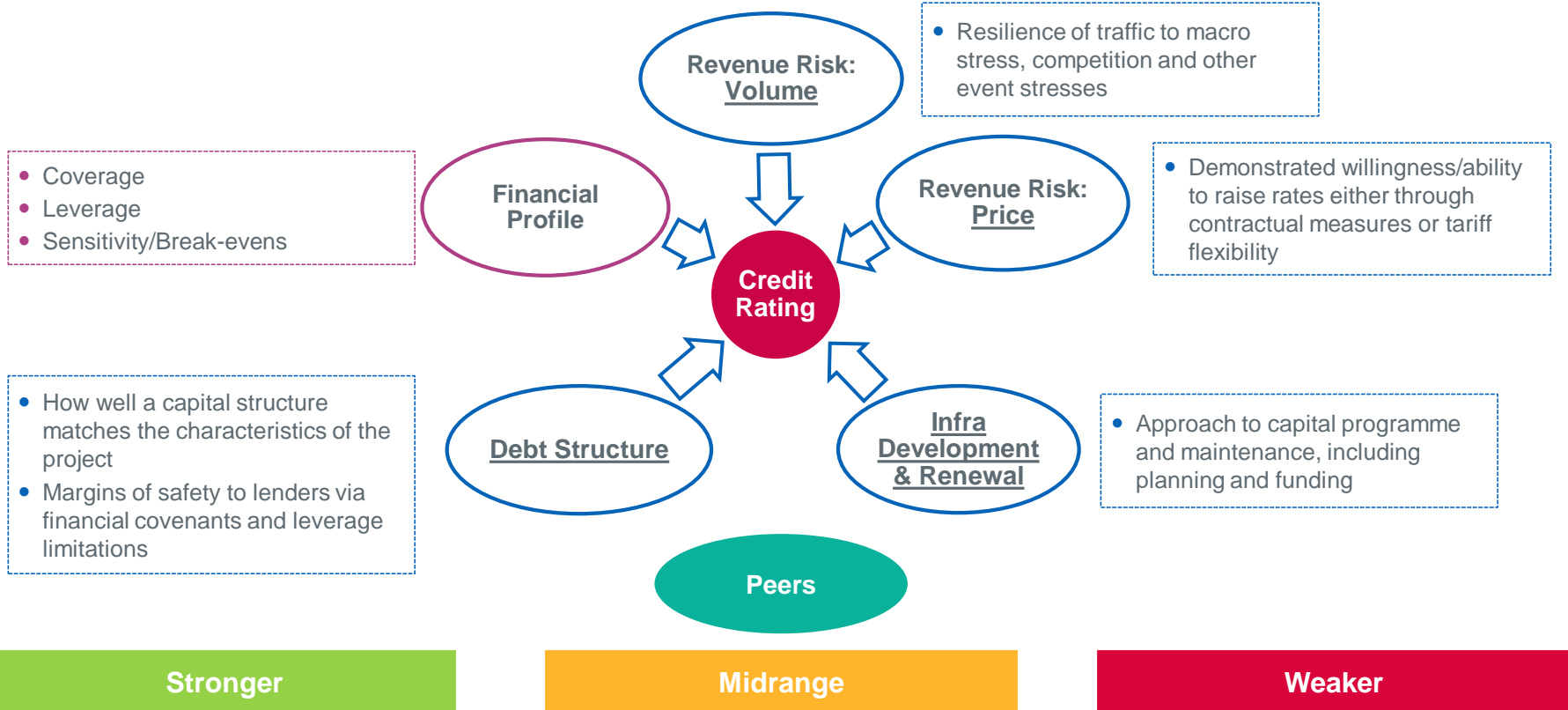


2

Fitch Ratings' Criteria for Toll Roads, Bridges and Tunnels

Fitch Ratings Approach on Transportation Assets

Key Rating Drivers



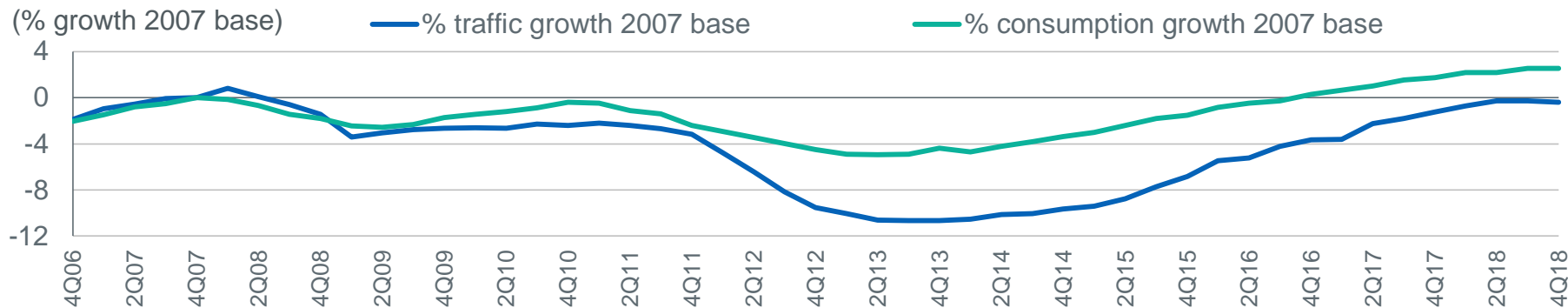


2.a

Volume Risk: Historical Performance of EMEA Toll Roads

Volume Performance in EU: Now Back to Pre-Crisis Levels

Consumption & Traffic Quarterly^a

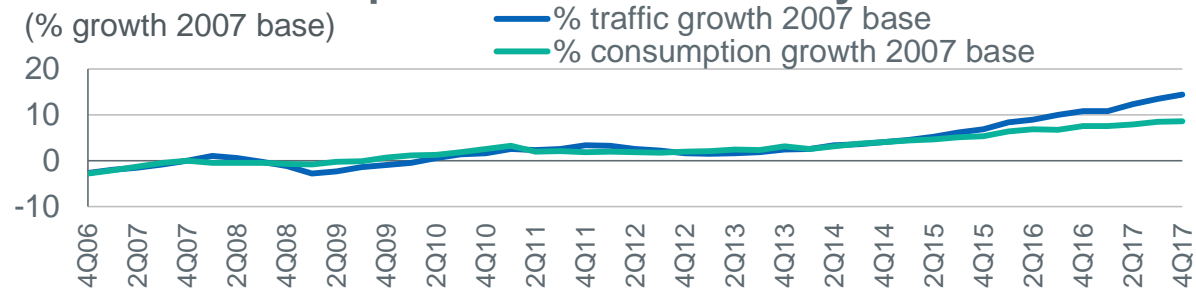


^a Data refers to the following countries (issuers); France (APRR), Italy (ASPI), Portugal (BCR) and Spain (Abertis Spain)
Source: Fitch Ratings elaboration on Eurostat and issuers data

- Quasi-monopolistic nature of toll roads typically protects operators from traffic volatility
- “Double-dip” recession took a toll on Fitch EMEA toll road issuers, particularly in Italy and Spain’ domestic networks
- Recovery in consumption and industrial production has supported traffic recovery from 2014–2018
- 2018 traffic improvement largely driven by heavy vehicle growth, while light vehicles are stagnant
- We expect sluggish volume growth in 2019 – Italy might have reached the peak

Volume Performance in France (Crucial Network) vs Spain (Congestion Reliever)

France – Consumption & Traffic Quarterly^a



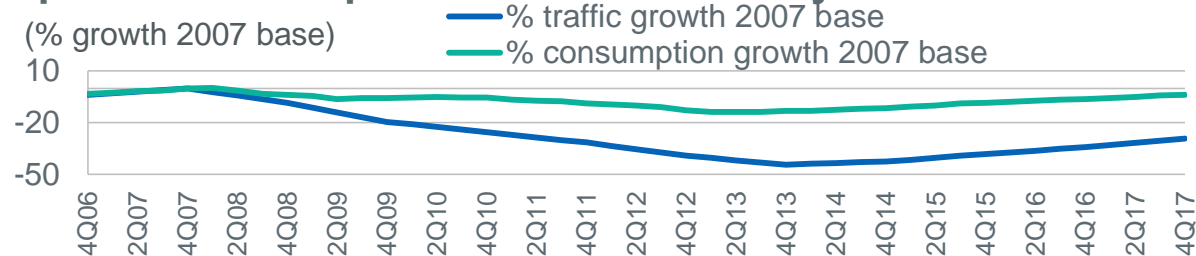
^a Data refers to the following country (issuer); France (APRR)

Source: Fitch Ratings elaboration on Eurostat and issuers data

France – Crucial Network

- Traffic volumes are influenced by local and national economic conditions
- APRR is a critical long-distance network in France, which had a minimal PtT decline of -3% over just 3 quarters. The quick recovery and strong growth thereafter, tracking ahead of consumption since 2015, supports its Stronger Volume assessment

Spain – Consumption & Traffic Quarterly^a



^a Data refers to a Spanish congestion reliever facility; data has been converted from annual to quarterly at a proportionately equal rate per quarter

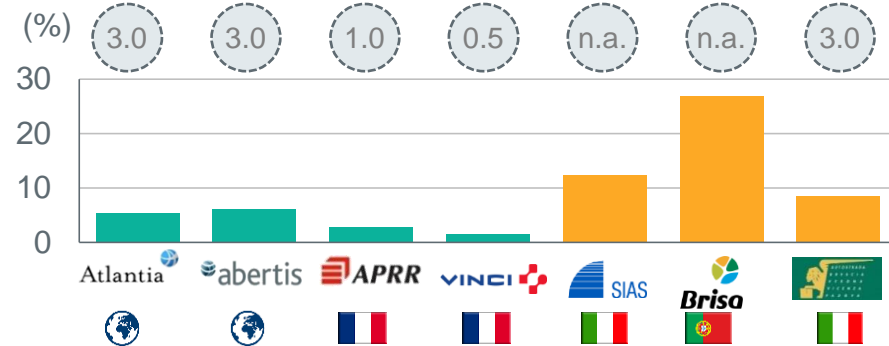
Source: Fitch Ratings elaboration on Eurostat and issuers data

Spain – Congestion Reliever

- Conversely, a Spanish congestion reliever facility assigned a Weaker volume risk score had a severe PtT decline of over 40% and has yet to approach recovery (through end-2017)
- The Spanish congestion reliever facility shows an amplified correlation between light vehicle traffic and household consumption

Traffic Volatility and Volume Assessment in EMEA and US Portfolios

EMEA Historical Peak-to-Trough (PtT) Decline

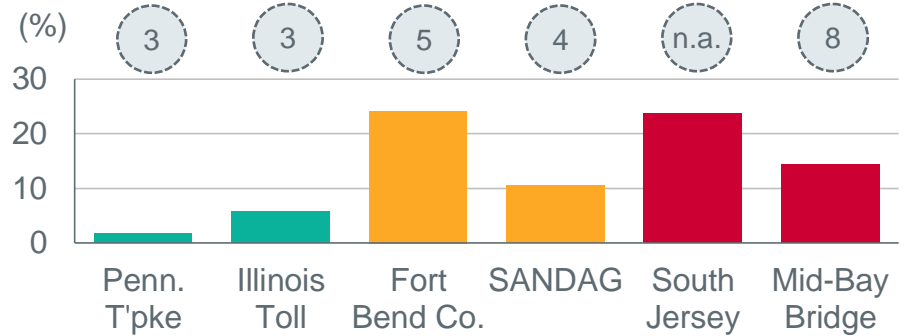


Number bubbles indicate the number of years to recover from the trough to the previous peak

Source: Fitch Ratings, elaboration on issuer data

- **Stronger** Volume Risk reflects a large and diverse user profile/geographical diversification and a strategically important asset for transportation in the region (Atlantia, Abertis, APRR, Vinci, Pennsylvania Turnpike, Illinois Toll Road). These assets are low in volatility with typically quick recovery from downturns
- **Midrange** Volume Risks are subject to higher volatility during a downturn with slower recovery. Assets can include medium-sized networks with more localized catchment areas (ABVP, Fort Bend County, SANDAG), or large networks with high volatility (BCR, SIAS)
- **Weaker** Volume Risks will reflect high levels of volatility during downturns. Facilities can include single-asset bridge networks with limited catchment areas (Mid-Bay Bridge) or areas with exposure to discretionary (i.e. leisure) traffic (South Jersey Transportation Authority)

Select US Credits Historical PtT Decline







Number bubbles indicate the number of years to recover from the trough to the previous peak

Source: Fitch Ratings, elaboration on issuer data



2.b Price Risk: Protective Tariff Systems in EMEA

Different Regulatory Price-Setting Frameworks in EU, Not a Rating Differentiator

				
Inflation (π)	<ul style="list-style-type: none"> • Either 100% or a fraction of CPI 	<ul style="list-style-type: none"> • A fraction of CPI 	<ul style="list-style-type: none"> • A fraction of CPI 	<ul style="list-style-type: none"> • A fraction of CPI
Compensation for Investment (I)	<ul style="list-style-type: none"> • Yes, WACC based^a 	<ul style="list-style-type: none"> • Yes, target IRR based^a 	<ul style="list-style-type: none"> • No 	<ul style="list-style-type: none"> • No
Other (M)	<ul style="list-style-type: none"> • Protection against traffic risk (applicable to some concessions) • Road quality factor (applicable to some concessions) • No 	<ul style="list-style-type: none"> • Protection against changes in: (i) tax rules specific to motorway sector; (ii) technical regulations related directly to the concession • Relevant case law provides for a freeze in the inflation component of tariff in case of negative inflation^b 	<ul style="list-style-type: none"> • Inflation indexation is not applied if it produces a negative adjustment (recovered when inflation turns positive) • Some controversy in selected availability-based PPP concessions (2018) 	<ul style="list-style-type: none"> • No • Some contradictory moves from recent governments
Deflation Remedy				
Recent trends	<ul style="list-style-type: none"> • Heightened risks following Genoa Bridge collapse • Ad hoc commission studying potential changes in tariff formulas 	<ul style="list-style-type: none"> • Tariff freezes recovered in the 2015 Plan de Relance 		
Tariff Formula	<ul style="list-style-type: none"> • $\pi + I + M$ 	<ul style="list-style-type: none"> • $\pi (\pi > 0) + I + M$ 	<ul style="list-style-type: none"> • $\pi (\pi > 0)$ 	<ul style="list-style-type: none"> • π

π =inflation I=compensation for investment M=Other

^a Agreed in the context of the five-year management contract

^b Conseil d'État N° 337920, February 2011. Tested in the tariff increase implemented by Cofiroute in 2010 in the context of negative French CPI Oct. 2008-Oct. 2009

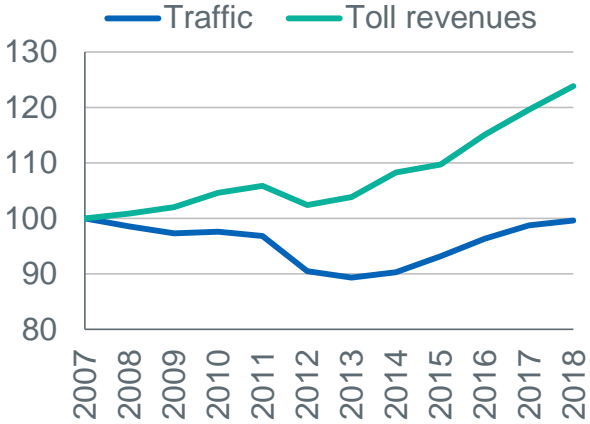
Source: Fitch Ratings

- Historically, EU toll road operators have not felt material impacts from political interference in rate-setting – but monitoring is appropriate
- Contractually based concession agreements ensure legal protection for issuers

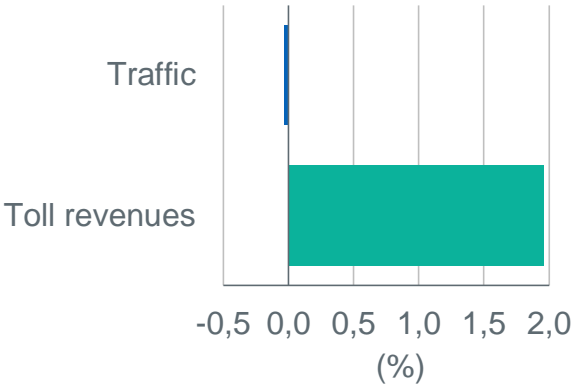
Protective Tariff Systems Provide Cash Flow Resilience

Historical T&R Performance^a

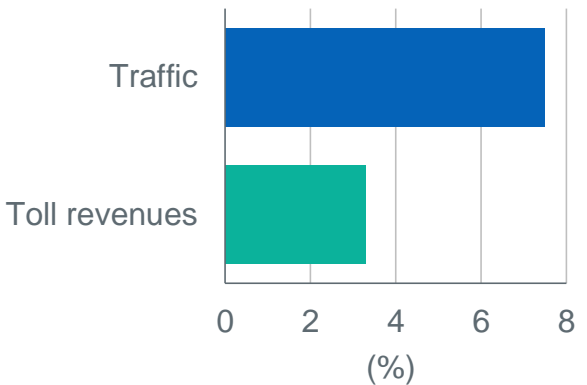
Index 2007 = 100



2007–2018 CAGR^a



2007-2018 Max ONE Year Shock^a



- EMEA toll road operators increased tariffs amid their quasi-monopolistic role
- Price-setting mechanisms are typically linked to an inflation measure with minimal or no price flexibility – price cap
- More protective tariff systems in Italy and France partially de-linked cash flows from traffic – capex recovery
- Deflation remedy in France

^a Data refers to the following issuers: APRR, ASPI, Abertis Spain and BCR
Source: Fitch Ratings



2.c

Infrastructure Renewal Risk: Planning, Funding, Management

Infrastructure Renewal Is Critical for Project Financings

- 
- Asset conditions/obsolescence
 - Asset capacity
 - Maintenance/capex planning
 - Contractual obligations
 - Maintenance/capex funding

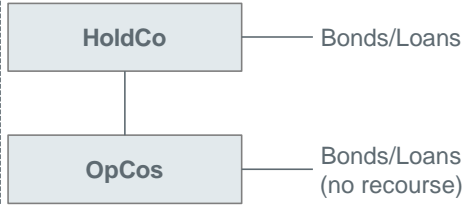


2.d

Debt Structure Risk: Corporate vs Project Finance Structures

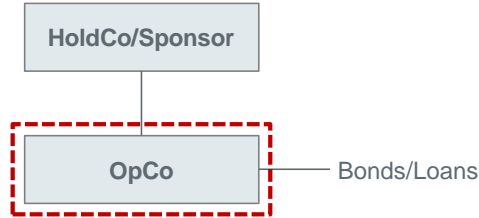
Debt Structure Considerations

Corporate



- Limited to no ring fencing
- Unsecured, bullet debt, largely fixed rate
- Loose/no covenants
- Exposure to increased leverage and M&A risk
- Robust liquidity (RCF)

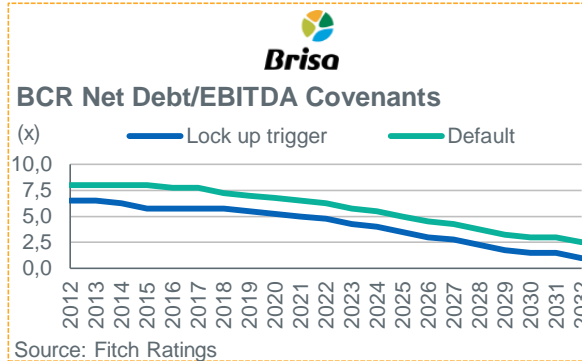
Project Finance



- Full concession ring fencing
- Secured, fully amortizing, typically fixed rate
- Restrictive covenants
- Restrictions on additional debt, M&A
- DSRA



Midrange



Midrange



Stronger

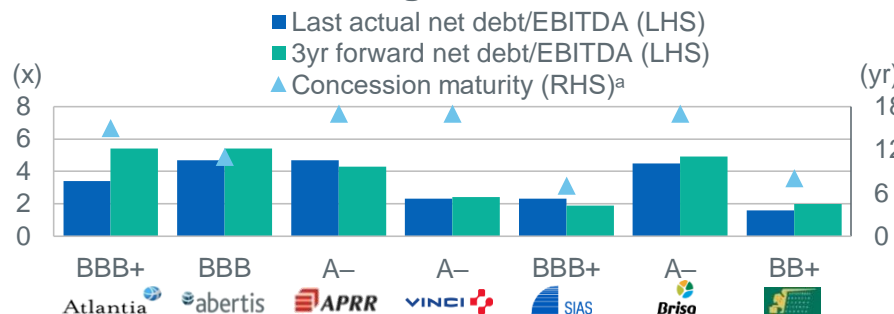


2.e

Financial Profile Analysis: Leverage vs Coverage

Comparing EMEA vs US Metrics: Apples and Oranges?

EMEA Credits: Leverage Under FRC



Rating on Atlantia's unguaranteed notes and its EUR10bn EMTN programme is 'BBB'/Neg

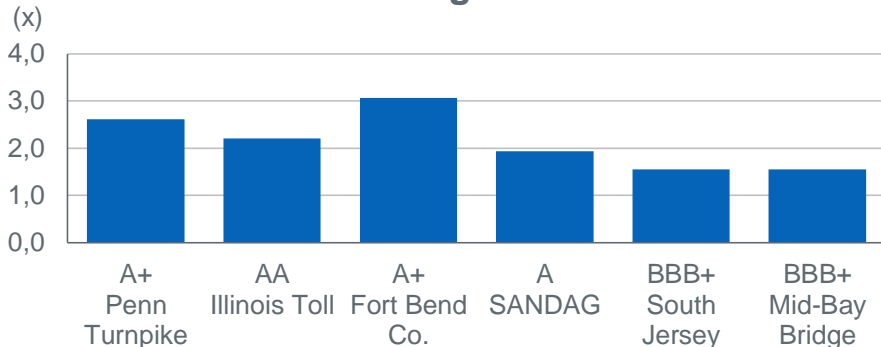
^a Average maturity at December 2018, weighted by 2017 EBITDA

Source: Fitch Ratings

Credit	Volume/Price Assessment
Atlantia/ASPI	Stronger/Midrange
Abertis	Stronger/Midrange
APRR	Stronger/Midrange
VINCI	Stronger/Midrange
SIAS	Midrange/Midrange
BCR	Midrange/Midrange
ABVP	Midrange/Midrange

Source: Fitch Ratings

Select US Credits: Average 10-Year DSCR Profile



For all credits, senior lien ratings and DSCR metrics are shown

Source: Fitch Ratings

Credit	Volume/Price Assessment
PTC	Stronger/Stronger
Illinois	Stronger/Stronger
FBCTRA	Midrange/Stronger
SANDAG	Midrange/Midrange
SJTA	Weaker/Midrange
Mid-Bay	Weaker/Midrange



2.f

Peer Group Analysis: Stable Investment Grade Credits

EMEA Toll Roads: Peer Group Overview

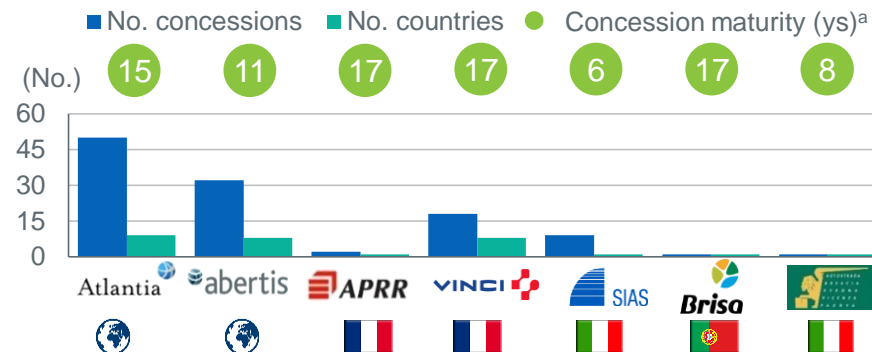
	Rating	Key Rating Drivers				Financial Profile
		Volume	Price	Infra-renewal	Debt structure	2020 ND/EBITDA (x)
Atlantia	BBB+/Neg. ^a	Stronger	Midrange	Stronger	Midrange	5.4
abertis	BBB/Stable	Stronger	Midrange	Stronger	Midrange	5.4
APRR	A-/Stable	Stronger	Midrange	Stronger	Midrange	4.3
VINCI	A-/Pos.	Stronger	Midrange	Stronger	Midrange	2.4
SIAS	BBB+/Neg.	Midrange	Midrange	Stronger	Midrange	1.9
Brisa	A-/Stable	Midrange	Midrange	Stronger	Midrange	4.9
	BB+/Stable	Midrange	Midrange	Midrange	Weaker	2.0

^a Rating on Atlantia's notes and its unsecured EUR10bn EMTN is BBB/Negative
Source: Fitch Ratings

Stable, Investment-Grade Credits

- Resilient revenues
- Corporate finance debt structure
- Moderate leverage
- Financial flexibility

EMEA Toll Road Issuers – Key Concessions & Countries



^a Average maturity at December 2018, weighted by 2017 EBITDA – Vinci includes only toll road concessions
Includes only concessions 50%+ owned
Source: Fitch Ratings

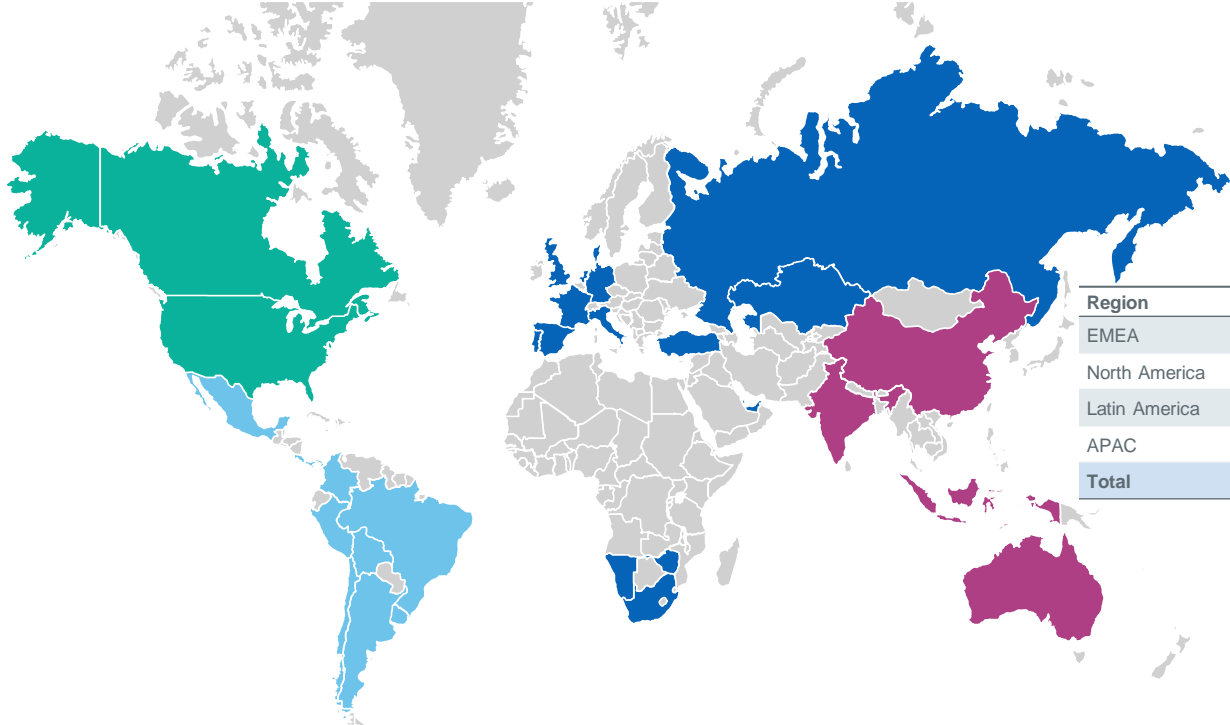
Peer Group Overview

- Geographically diversified/national networks
- Privately owned, fully operational issuers
- Diverse concession maturities
- Single concession vs portfolio of concessions



Back-up

Fitch Global Infrastructure Group Coverage^a



Region	# Analysts
EMEA	24
North America	30
Latin America	16
APAC	6
Total	76

EMEA	# Ratings
Energy	15
Transportation	65
Other Infrastructure	16
Whole Business Securitizations	18
Total	114

North America	# Ratings
Energy	26
Transportation	168
Other Infrastructure	13
Whole Business Securitizations	0
Total	207

Latin America	# Ratings
Energy	67
Transportation	62
Other Infrastructure	8
Whole Business Securitizations	0
Total	137

APAC	# Ratings
Energy	4
Transportation	21
Other Infrastructure	1
Whole Business Securitizations	0
Total	26

^a Includes only public ratings; reflects total number of ratings across all liens
 Source: Fitch Ratings

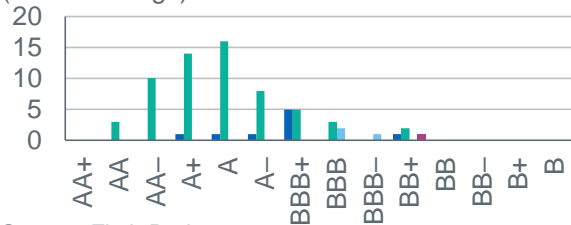
Fitch Ratings Global Coverage of Transportation^a and Outlook



Fitch Ratings – Airports Coverage

■ EMEA

(No. of Ratings)



Source: Fitch Ratings

Region	No of Ratings
EMEA	9
North America	61
Latin America	3
APAC	1
Total	74

- Strong passenger growth in APAC
- Moderate passenger growth in US, with rising capital spending
- EMEA could be near cyclical peak for passenger growth
- EMEA airports have headroom at current leverage profiles

^a Only includes senior lien ratings

Source: Fitch Ratings



Fitch Ratings – Seaports Coverage

■ North America

■ Latin America

(No. of Ratings)



Source: Fitch Ratings

Region	No of Ratings
EMEA	8
North America	14
Latin America	2
APAC	6
Total	30

- Protectionism and trade disputes raise uncertainty
- Global trade resilient, however growth is slowing
- Consolidation of shipping lines could reduce port pricing power
- Port overcapacity may become a lingering problem



Fitch Ratings – Toll Roads Coverage

■ APAC

(No. of Ratings)



Source: Fitch Ratings

Region	No of Ratings
EMEA	9
North America	39
Latin America	11
APAC	5
Total	64

- New construction continues in APAC
- Healthy economic trends in US will drive moderate growth in near term
- EMEA traffic growth to slow - may have reached peak in Italy. Rising inflation supports revenues
- Technological disruption not expected in 2019

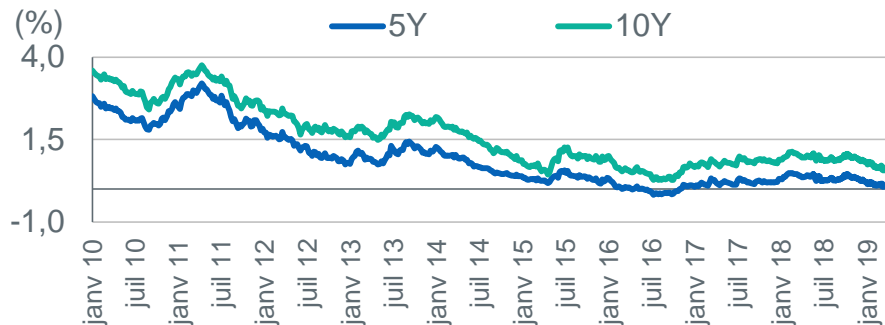
Fitch Ratings Approach on Transportation Assets

KRDs Scope



Cheap Funding, Long Dated Debt

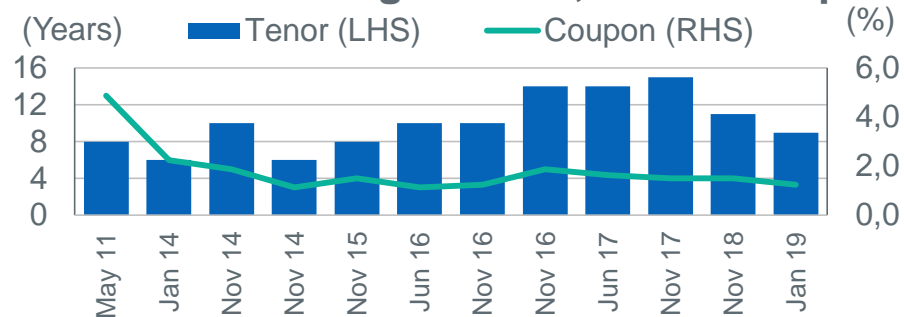
EUR IRS – Historical Data



Source: Fitch Ratings

- Issuers have taken advantage of the very favourable market conditions
- Longer debt tenor pursued amid reducing spreads in long-term maturities
 - Lock-in cheaper debt → Improving coverage
 - Long date debt → Lengthening average debt maturity
 - Refi also ahead of maturities → Reduced refinancing risk

APRR Bonds: Longer Tenor, Lower Coupon



Source: Fitch Ratings










	December 2013	December 2018
Cost of Debt^a	5.3%	2.0%
Average Debt Maturity^b	3.6 yrs	7.5 yrs

^a Calculated as the ratio of interest paid to gross debt at BoP

^b Calculated on bonds only

Source: Fitch Ratings

EMEA Peer Analysis Table

Fitch's European Public Ratings ^a	 ^b			 ^c			
Rating/Outlook	BBB+/Neg.	BBB/Stable	A-/Stable	A-/Pos.	A-/Stable	BBB+/Neg.	BB+/Stable
Last rating action	31 Oct 18	31 Oct 18	4 Jul 18	22 Nov 18	4 Dec 18	2 Apr 19	11 Feb 19
Rating approach	Consolidated	Consolidated	Consolidated	Consolidated	Standalone	Consolidated	Standalone
Asset type	Portfolio	Portfolio	Large network	Large network	Large network	Regional network	Small network
Facility length – approx. km	14,000	7,800	2,300	4,400	1,000	1,100	235
Concession maturity	2019–2050	2019–2061	2035–2036	2032–2070	2035	2017–2043	2026
Weighted average life - years ^d	15	11	17	17	17	7	8
Historical traffic							
Volume PtT (2007 = 100) (%)	5	6	3	2	27	12	8
2017 index(2007 = 100)	105	104	114	114	94	95	106
Key Rating Drivers							
Revenue risk: Volume	Stronger	Stronger	Stronger	Stronger	Midrange	Midrange	Midrange
Revenue risk: Price	Midrange	Midrange	Midrange	Midrange	Midrange	Midrange	Midrange
Infrastructure development & renewal	Stronger	Stronger	Stronger	Stronger	Stronger	Stronger	Midrange
Debt structure	Midrange	Midrange	Midrange	Midrange	Midrange	Midrange	Weaker
Financial profile							
Primary metric	Leverage	Leverage	Leverage	Leverage	Leverage	Leverage	PLCR
2017 actual Fitch adj. ND/EBITDA (x)	3.4	4.7	4.7	2.3	4.5	2.5	0.9
2020 exp. Fitch adj. ND/EBITDA (x)	5.4	5.4	4.3	2.4	4.9	1.9	0.4
Rating sensitivity (x)	5.0 – 6.0	5.0 – 6.0	4.0 – 5.0	3.0 – 3.7	3.5 – 4.5	3.0 – 4.0	PLCR

^a For all the issuers the metrics shown in the table have been calculated on the date of the last rating action; ^b Rating on Atlantia's notes and its unsecured EUR10bn EMTN is BBB/Negative; ^c Operating and traffic data refer to ASF, Escota, Cofiroute and Arcour; ^d At Dec. 2018, weighted by 2017 EBITDA

Source: Fitch Ratings

Electric and Autonomous Vehicles: Key Trends to Monitor

- Mobility as a service
- Higher vehicle occupancy trends
- Closer vehicle spacing

Parking assets could suffer if vehicle ownership rates decline

- Congestion reliever facilities could be threatened by improved spacing and alignment of vehicles in the future, if congestion is reduced
- Alternatively, AV route selection may find such facilities appealing for maintaining overall traffic flow

Electric vehicles could pose a threat to gas tax revenues, a critical source of funding for road maintenance in the USA

EV adoption will depend on

- Affordability
- Availability of charging infrastructure
- Government regulation on climate

Long-distance arterial routes are likely to remain critically important and lead to traffic stability

Toll-Road Ratings Relationship with Sovereign Ratings

EMEA Toll Roads Rated Above the Sovereign Rating

Project Name	 Atlantia <i>autostrade per l'Italia</i>	 Brisa	 SIAS
Project Rating			
Rating date	31 Oct 18	4 Dec 18	2 Apr 19
Project rating	BBB+	A-	BBB+
Outlook	Negative	Stable	Negative
Sovereign Rating			
Rating date	22 Feb 19	30 Nov 18	22 Feb 19
Country	Italy	Portugal	Italy
Sovereign rating	BBB	BBB	BBB
Outlook	Negative	Stable	Negative
Country Ceiling	AA	AA	AA
Project vs sovereign rating			
Notches above sovereign	1	2	1
Max. notches above sovereign	2	2	1
Rationale for rating above the sovereign	+ Moderate exposure to domestic banks + Proven capital market access + Significant geographical diversification	+ No exposure to domestic banks + Proven capital market access - Correlation to domestic economy during downturns	- Correlation to domestic economy during downturns - Infrequent capital market issuance

Source: Fitch Ratings

- In general, toll road operators do not rely on direct government support. This allows ratings on toll roads to exceed their respective sovereign ratings.
- Toll road networks are affected by the sovereign in terms of:
 - Local and national economic growth (impact on traffic performance)
 - Capital markets (impact on refinance risk or currency/capital controls)
- Given these risks, Fitch views infrastructure projects as able to exceed the sovereign rating by no more than three notches, with most issuers able to achieve a maximum of two notches above the sovereign

Fitch Ratings' credit ratings rely on factual information received from issuers and other sources. Fitch Ratings cannot ensure that all such information will be accurate and complete. Further, ratings are inherently forward-looking, embody assumptions and predictions that by their nature cannot be verified as facts, and can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed. The information in this presentation is provided "as is" without any representation or warranty. A Fitch Ratings credit rating is an opinion as to the creditworthiness of a security and does not address the risk of loss due to risks other than credit risk,

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