Moody's
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Toll Road Funding Models – more than one way from A to B

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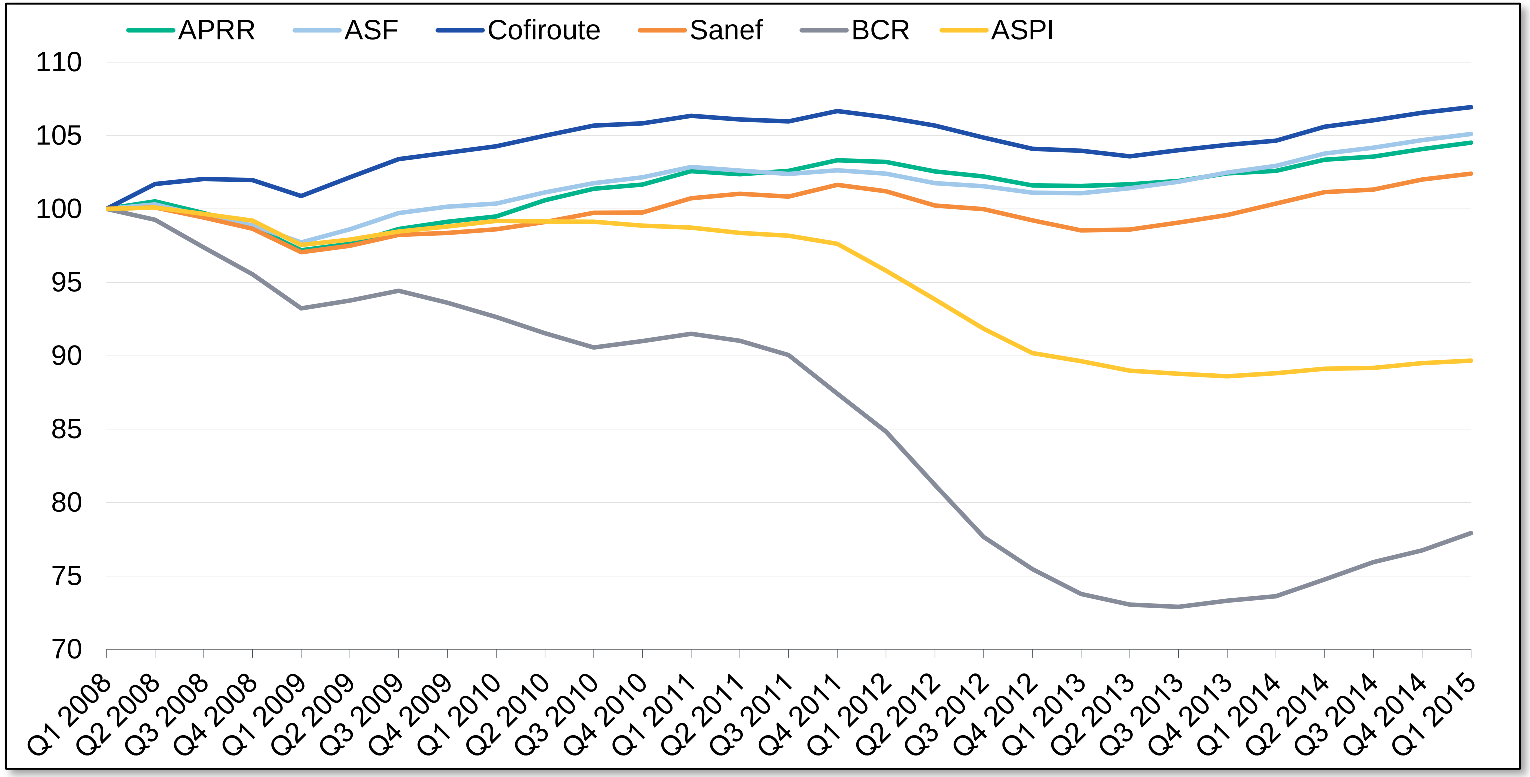
Economic Prospects

Economic Growth Moody's August 2015 Central Scenario		
Annual GDP Growth Assumptions	2015	2016
USA	+2.0% to +3.0%	+2.5% to +3.5%
Euro Area	+1.0% to +2.0%	+1.0% to +2.0%
UK	+2.0% to +3.0%	+2.0% to +3.0%
France	*+1.0%*	*+1.2%*
Germany	*+2.0%*	*+1.8%*
Italy	*+0.5%*	*+1.0%*
Spain	*+2.7%*	*+2.2%*

The recovery in the US and to a lesser extent Euro Area and Japan will be offset by the ongoing slowdown in China. Still low or even negative growth in Latin America. Beyond the short-term boost from lower oil prices and the weaker euro, there is no evidence that the euro area economy is much stronger than last year.

Economic Background – European Experience

Change in Traffic Volumes Selected European Toll Networks - 2008Q1 to 2015Q1



European Traffic – past experience influences funding options?

Different ways to finance toll road infrastructure32

1. Full traffic risk toll road (public sector or privately owned)
2. Regulated utility (asset base earning a return and covering costs)
3. PFI/PPP with Government payment mechanism mitigating traffic risk

A menu of funding structures

1. Full traffic risk toll road

Pros:

Useful to source non-government funds.

Well understood funding model.

Tariff formula clear – no need to revisit unless significant changes.

Cons:

Transfers public asset for a long time.

Start-ups – optimism bias in projections.

Initial judgments made using compound long term assumptions.

Viaduc de Millau

Most common model but subject to significant valuation errors

2. Regulated utility model

Pros:

Users carry long term traffic risk – should reduce cost of capital.

Responds to changes in market cost of capital.

Material new capex is accommodated.

Cons:

More variability in toll prices overtime.

Asset depreciation allowance artificial.

A regulator to set targets & oversee.

SIAS S.p.A.

Less used for roads, and works best for a network that will evolve

3. PFI / PPP road with Government payment mechanism

Pros:

Allows procurement where traffic difficult to quantify / finance.

Many variations to suite circumstances.

Subsidy levels can be tendered easily.

Cons:

Inflexible Government payments.

Value for money may force long concessions.

Limerick Tunnel PPP

Important to get the public / private risk share at the right price

Credit rating experience

Sub-sector	Current Rating Range	Rating Methodology
Public Sector Roads – USA	Aa3 to Baa3	Government Owned Toll Roads, October 2012
Privately Managed Roads – Global	A2 to Caa1	Privately Managed Toll Roads, May 2014
PFI/PPP Roads (operational) - Global	A2 to Baa3	Operational Privately Financed Public Infrastructure Projects, March 2015

All structures capable of being comfortably investment grade

Which solution? – Many things to consider

- Private capital or public ownership – political philosophy?
- Are subsidies required for an adequate return?
- Government balance sheet constraints / borrowing capacity.
- Uncertainty over future traffic flow – who takes the risk?
- Stressed economies – increased user focus on toll prices.
- Pressure to reduce tariffs that pay for investment made years ago.

The right option depends on which offers best value for money for procurers while being financeable