

The colombian road infrastructure: ¿Where we are and where are we going in 4G?

Update

Bogotá, August 2017

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01 Why infrastructure is important?

02 The institutionality of the transport sector

03 Where we are in 4G infrastructure?

04 4G financing

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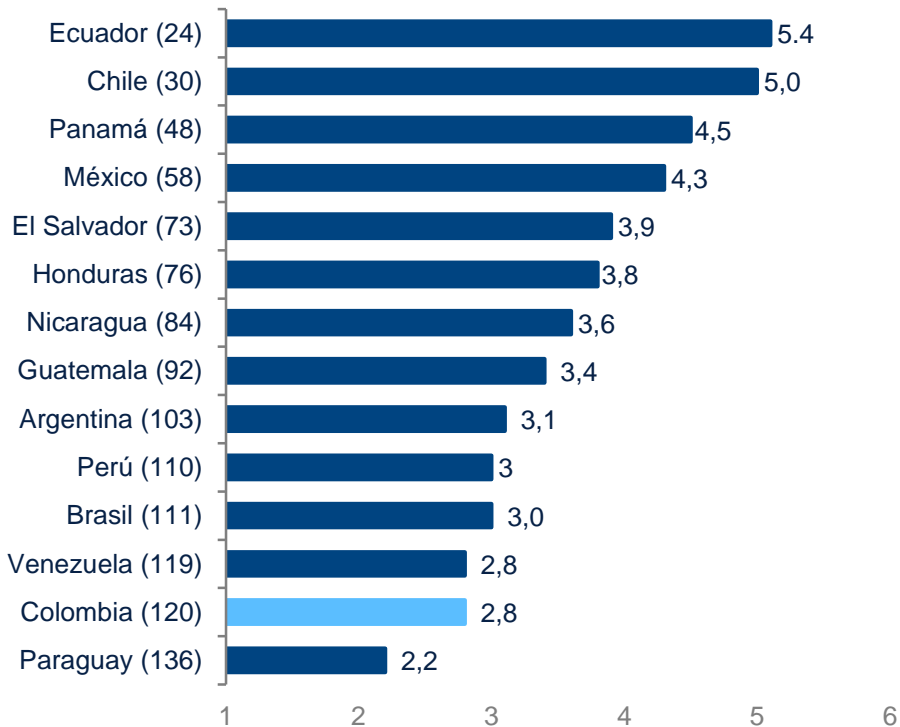
03 Where we are in 4G infrastructure?

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Poor roads and port quality compare to competitors

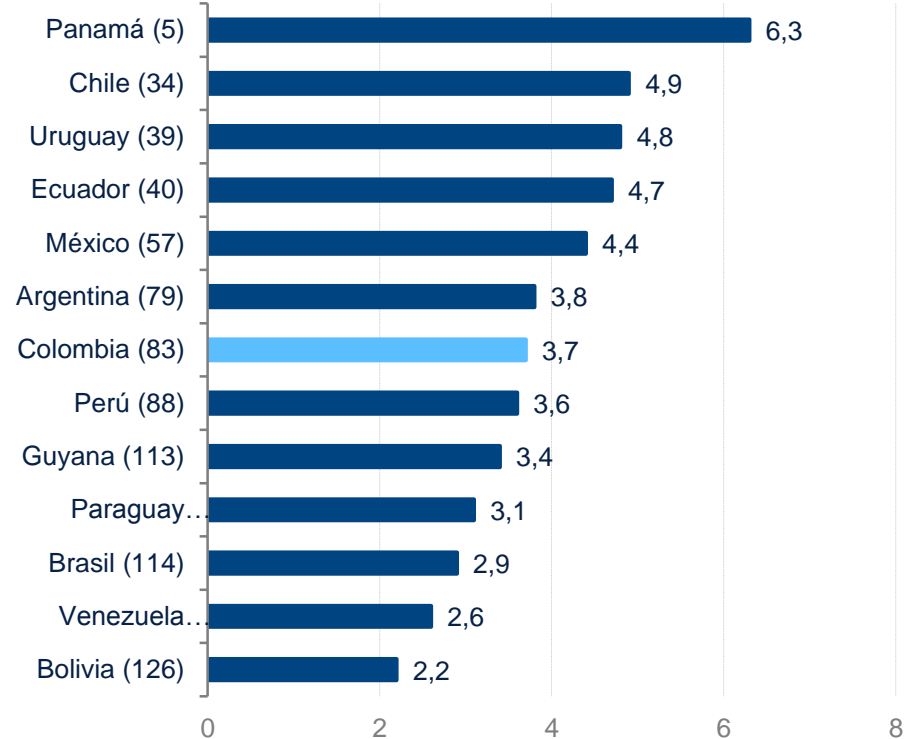
Quality of the roads in LATAM

(Grade, position in parenthesis)



Quality of port infrastructure in LATAM

(Grade, position in parenthesis)

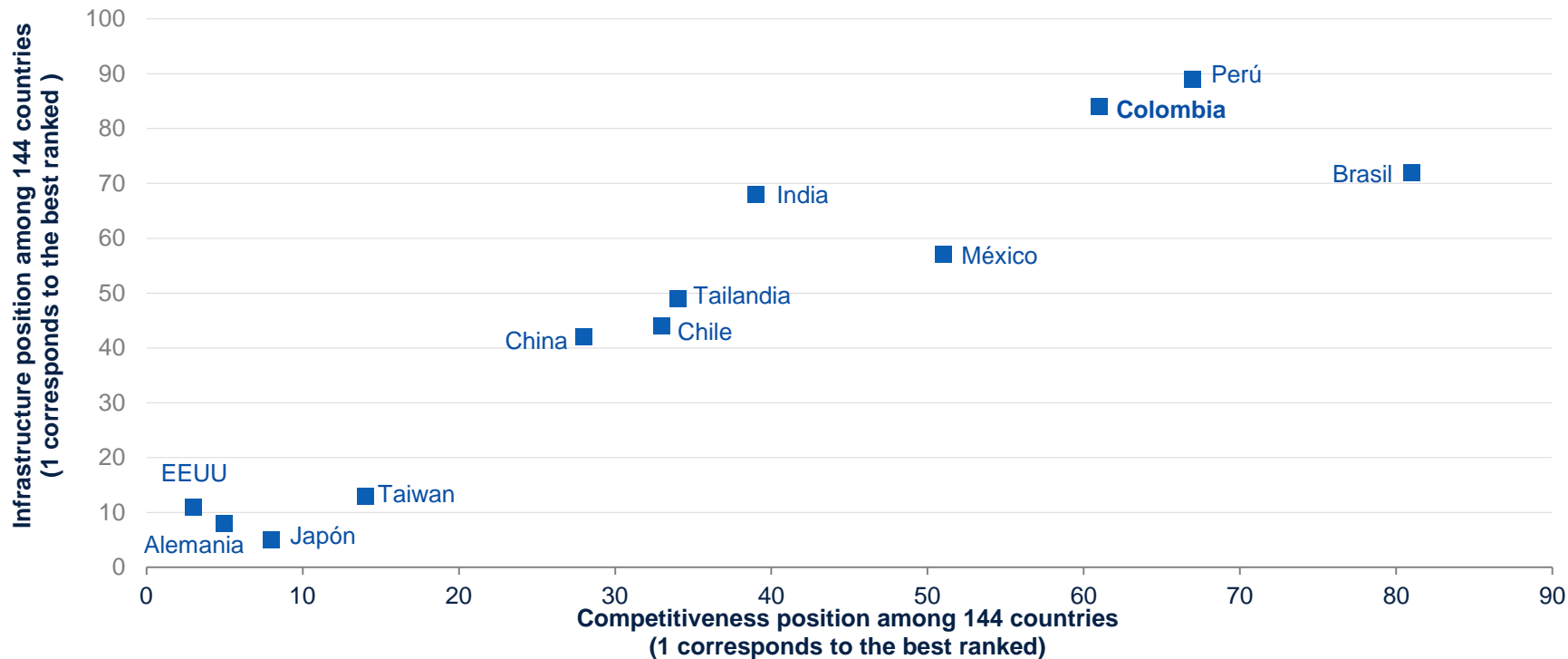


Less quality of roads in Colombia than that of Latin America and the Caribbean and significantly less than that of Chile

Medium term: Infrastructure increases productivity

Position in competitiveness and infrastructure

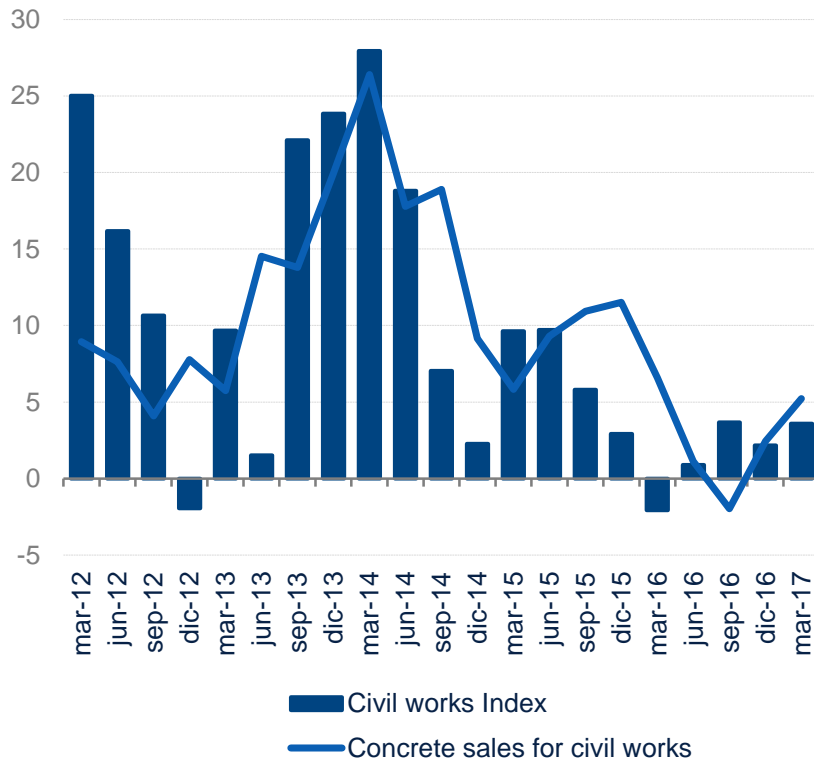
(Position)



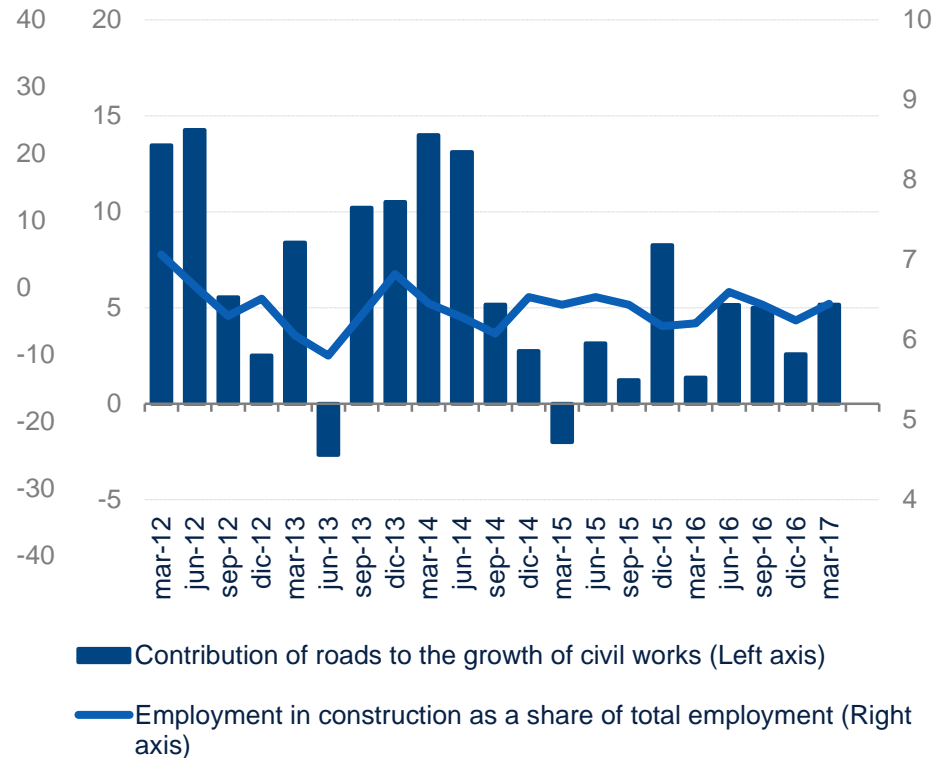
The Colombian infrastructure needs to improve

Short term: the construction of infrastructure boosts demand

Civil engineering works and concrete sales (Index growth and sales, %, a/a)



Roadworks and urban employment (Index growth and participation, %, a/a)



In the short term the construction of infrastructure increases the demand for inputs. That boosts growth

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The institutionality of the transport sector

Ministry of Transport

In charge of issuing the sector's policies, plans, and programs and of technical and economic regulation.
 2017 Investment Budget: USD1,6bll (COP4,9bll, 14,8% of PGN" investment)

	No concessioned Infraestructure	Public Private Partnerships
Ground	Performing Entity: INVIAS 2017 investment budget: USD0,5bll (\$COP1,4bll)	Performing Entity: ANI : Structuring, execution , and contract supervision of concessions and PPP's. ANI's 2017 investment budget: USD0,5bll (COP\$1,6bll.)* Regulatory framework: Concession law or PPP's law (Law 1508, 2012). Infrastructure law (Law 1682, 2013) More robust concession frame contract
Railway		
Maritime	Performing Entities: Cormagdalena e INVIAS	Current ambitious 4th generation of roadway concessions (4G): USD16bll, 32 projects Financing: concessionaire equity, FDN (resources from multilaterals and ISAGEN), local banks, Foreign banks, private capital funds and debt funds Post construction: tolls, future authorized government budget funds, and infrastructure bonds.
Fluvial	Performing Entity: Aerocivil 2017 investment budget: USD 0,2 bll (COP \$0,7bll.)	
Air		

Source: BBVA Research with data from Fedesarrollo and the Ministry of Finance (with budget appropriation data, in the report of execution of the General Budget of the Nation accumulated to June). * The ANI also has COP 0.8 trillion in domestic debt. An average exchange rate of 2017 of COP2977 / USD (BBVAe)

4G: Important challenges despite the advances

Regulatory framework :

- Concession law or PPP's law (Law 1508, 2012) .
- Infrastructure Law (Law 1682 , 2013)
- New, more robust frame concession contract

Institutional Headways:

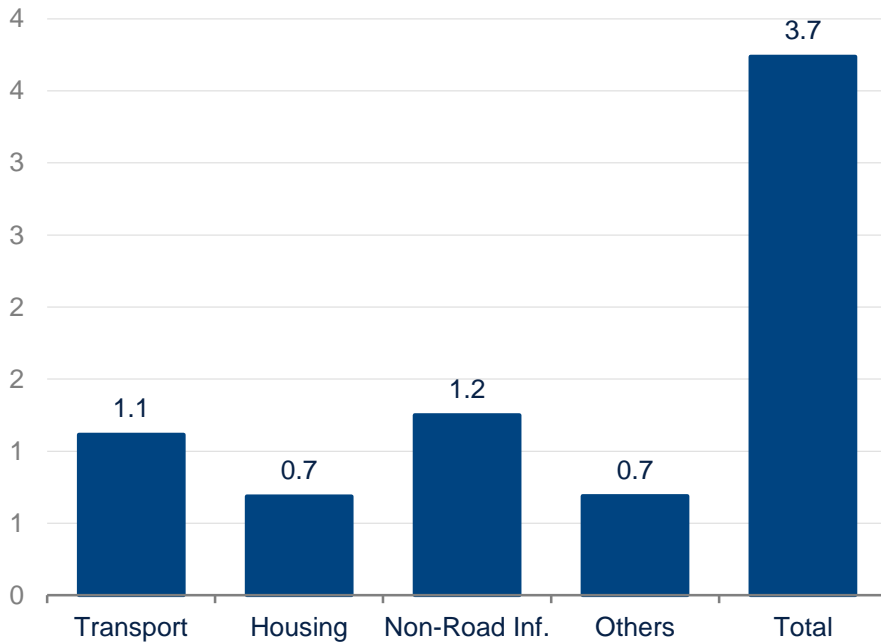
- The National Infrastructure Agency –ANI-, the National Authority for Environmental licenses –ANLA-, and the Intersectorial Infrastructure Commission –CII- were created . FEN was transformed into the National Development Finance –FDN-

Pending aspects and challenges

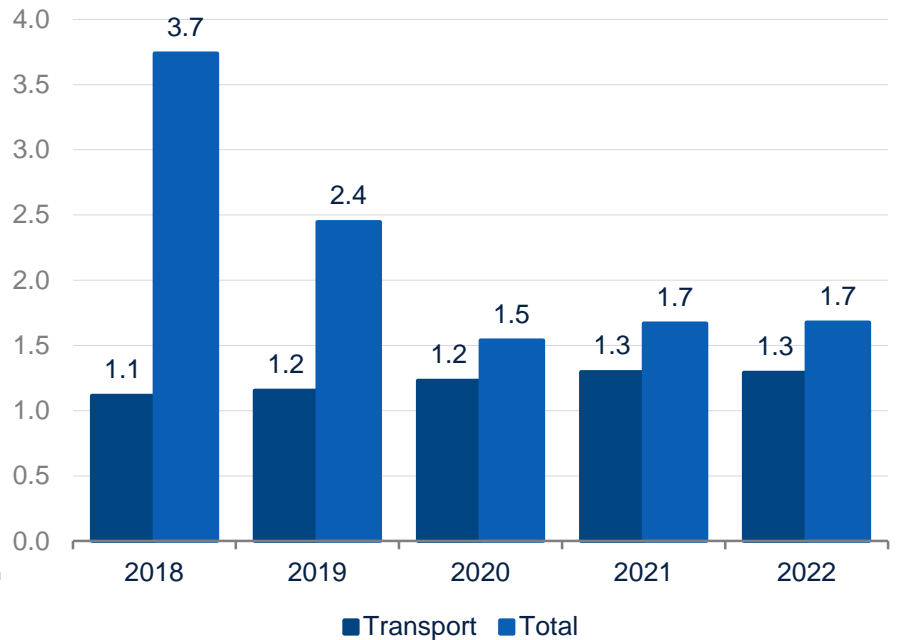
- National Authority for Environmental License capacity
- Improvement in the consulting processes with communities (some projects have previous consulting problems)
- Possible delays in the financial closing of the next stage of 4G because of the reputation risk associated to Odebrecht
- Recent problems in the early liquidation of a contract evidenced legal gaps in the 4G, which led to the drafting of a law.
- Sales initiative of the participation of some concessionaires. The development of some projects depends on the fluency of these sales processes.
- Search for foreign investment in COP's

The “future authorized government budget funds” boost the investment in the transport sector

Future authorized government budget funds for investment by sector*
(2018, US\$ Billions)



Future authorized government budget funds for investment total and for transport*
(2018-2022, US\$ Billions)



“Future authorized government budget funds”: important 4G funders

Funds authorized from future government budgets for PPP* (US\$ Billions)

Project	2018	2019-2022	2023-2026	2027-2030	2031-2034	2035-2038	2039-2042	Accumulated Total
WAVE 1	0.22	1.59	1.73	1.73	1.56	0.59	0.04	7.47
Conexión Pacífico 1	0.03	0.23	0.26	0.26	0.26	0.00	0.00	1.05
Perimetral de Oriente	0.02	0.23	0.18	0.18	0.18	0.18	0.04	1.01
Conexión Norte	0.02	0.17	0.20	0.20	0.20	0.20	0.00	0.97
Autopista al Río Magdalena 2	0.01	0.20	0.25	0.25	0.25	0.00	0.00	0.95
Mulalo - Loboguerrero	0.06	0.24	0.25	0.25	0.13	0.00	0.00	0.94
Conexión Pacífico 3	0.00	0.17	0.20	0.20	0.20	0.00	0.00	0.79
Cartagena - Barranquilla	0.04	0.16	0.16	0.16	0.12	0.00	0.00	0.66
Autopista Conexión Pacífico 2	0.01	0.09	0.12	0.12	0.12	0.12	0.00	0.56
Girardot-Puerto Salgar	0.03	0.10	0.10	0.10	0.10	0.10	0.00	0.55
WAVE 2	0.05	1.68	2.06	2.06	1.97	1.33	0.35	9.50
Mar 1	0.00	0.24	0.37	0.37	0.37	0.31	0.00	1.65
Pasto-Rumicahaca	0.01	0.26	0.30	0.30	0.30	0.30	0.11	1.58
Mar 2	0.00	0.24	0.38	0.38	0.38	0.09	0.00	1.46
Popayán - Santander De Quilichao	0.00	0.19	0.21	0.21	0.21	0.21	0.08	1.12
Neiva-Santana	0.00	0.17	0.20	0.20	0.20	0.20	0.07	1.04
Villavicencio-Yopal	0.00	0.23	0.25	0.25	0.25	0.00	0.00	0.99
Bucaramanga - Barrancabermeja -Yondó	0.03	0.18	0.19	0.19	0.10	0.05	0.00	0.73
Transversal Del Sisga	0.01	0.10	0.10	0.10	0.10	0.10	0.05	0.56
Puerta Del Hierro – Cruz del Viso	0.00	0.06	0.06	0.06	0.06	0.06	0.03	0.35
WAVE 3	0.00	0.28	0.44	0.44	0.42	0.55	0.29	2.43
Pamplona -Cúcuta	0.00	0.15	0.30	0.30	0.28	0.41	0.22	1.64
Bucaramanga -Pamplona	0.00	0.13	0.15	0.15	0.15	0.15	0.07	0.79
OTHER PPP Projects	0.05	0.27	0.51	0.13	0.00	0.00	0.00	0.97
Recuperacion De La Navegabilidad Del Ric	0.00	0.27	0.51	0.13	0.00	0.00	0.00	0.92
Autopista Ruta del Sol	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.05
TOTAL	0.32	3.83	4.75	4.36	3.95	2.48	0.68	20.36

Part of the Future authorized government budget funds were in USD, hedging the concessionaire

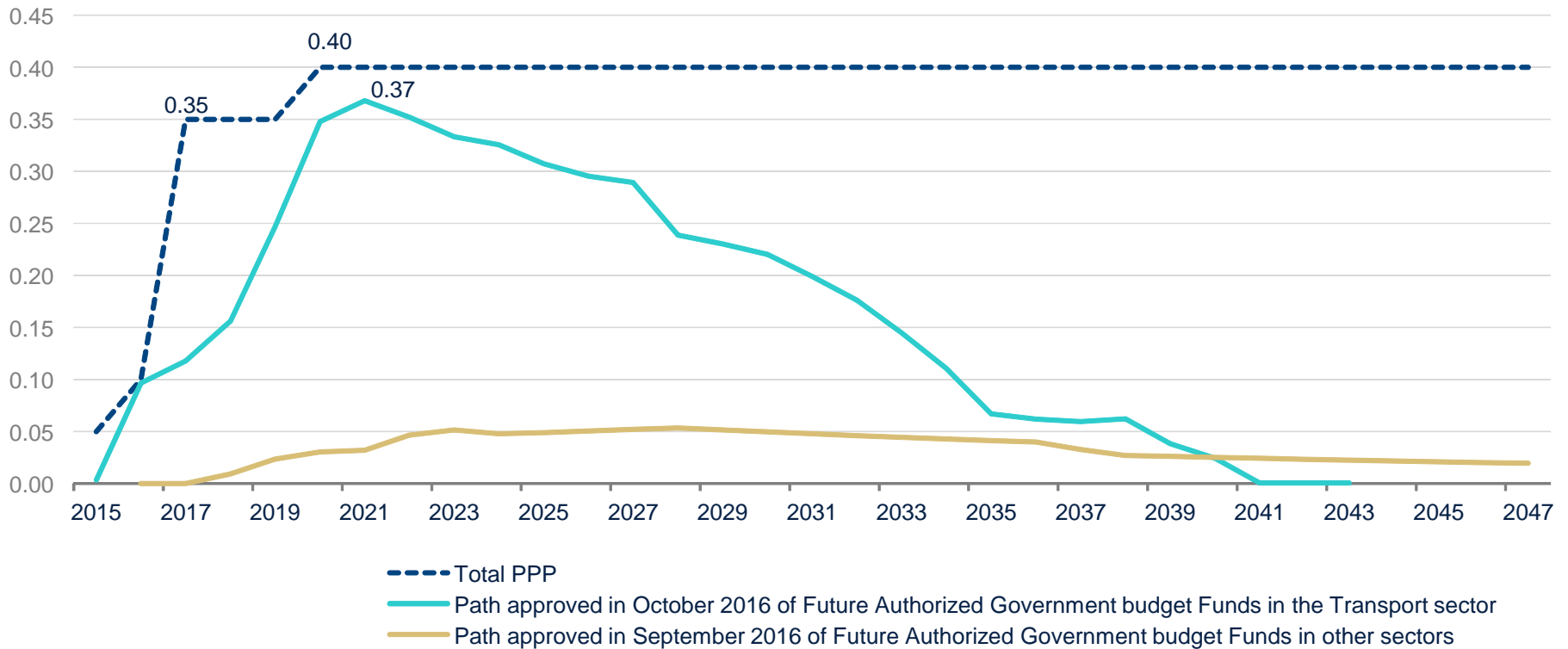
Future authorized government budget funds for 4G projects* (US\$ Billions)

Project	Future authorized government budget funds*	% FV Requested dollars
Conexión Pacífico 1	1.04	0.18
Conexión Pacífico 2	0.59	0.50
Conexión Pacífico 3	0.80	0.49
Autopista al Río Magdalena 2	0.99	0.24
Conexión Norte	0.98	0.37
Girardot -Puerto Salgar	0.59	0.34
Cartagena-Barranquilla	0.71	0.32
Perimetral de Oriente	0.88	0.32
Mulaló-Loboguerrero	0.97	0.31
Total First Wave	7.54	0.34
Puerta del Hierro Cruz del Viso	0.00	-
Transversal del Sisga	0.41	-
Mar 1	1.24	0.39
Mar 2	1.40	0.40
Neiva Santana	1.04	0.40
Pasto Rumichaca	1.16	0.46
Popayán-Santander de Quilichao	0.88	0.46
Villavicencio Yopal	0.98	0.53
Bucaramanga-Barrancabermeja- Yondó	0.70	0.00
Total Second Wave	8.10	0.38

Sources: BBVA Research with data from the Ministry of Finance (in the Medium-term fiscal framework 2017 p.266). *Refers to the Future authorized government budget funds on April 30, 2017.

The share of the transport sector in “Future authorized government budget funds” for PPP will be important

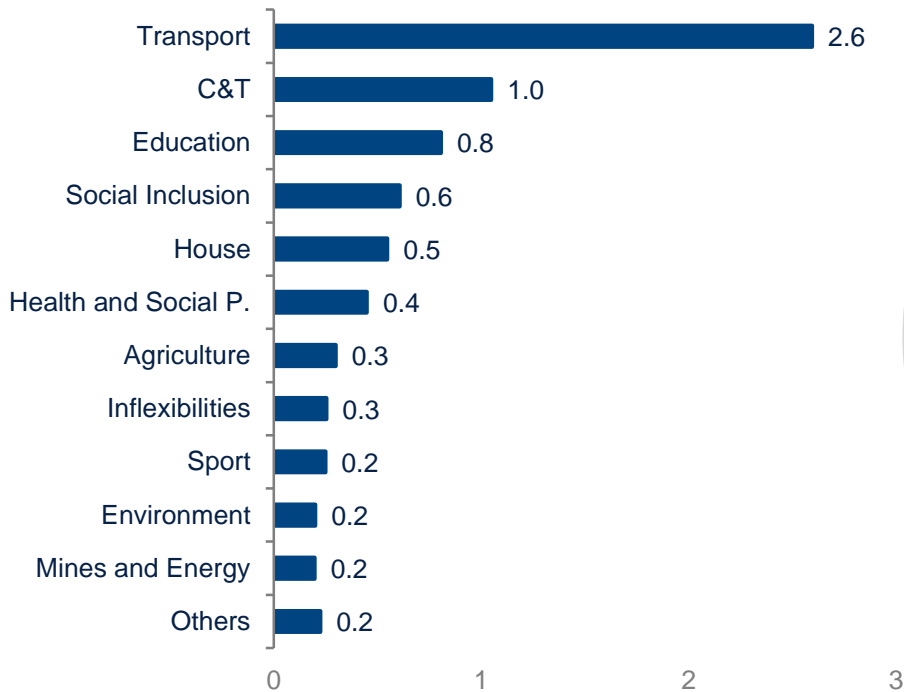
Future authorized government budget funds approved by sector and total quota for PPP (% PIB)



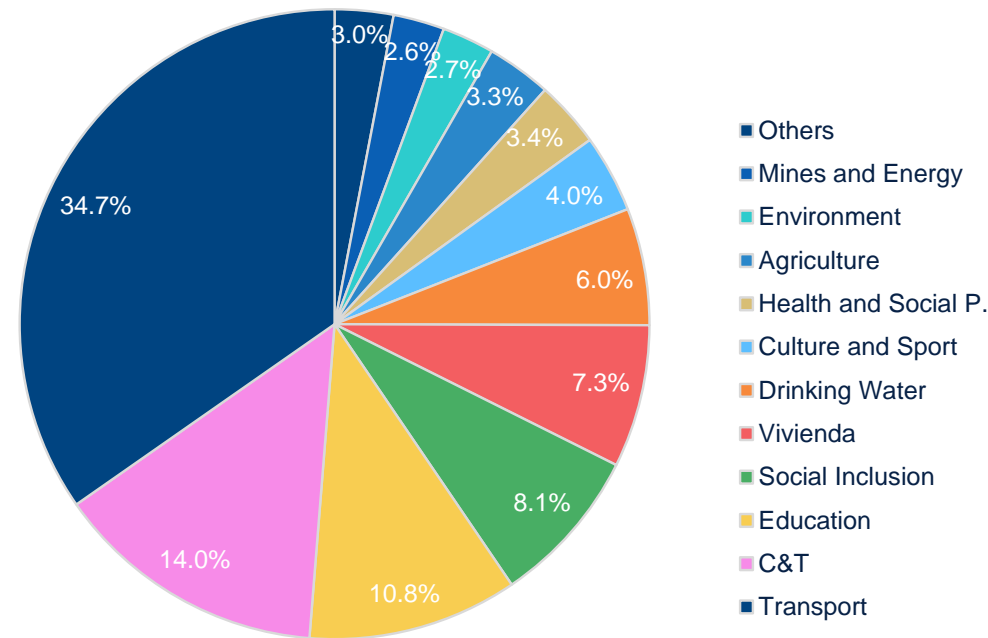
Sources: BBVA Research with data from the Ministry of Finance (in the Medium-term fiscal framework 2017 p.266). *Refers to the Future authorized government budget funds on April 30, 2017.

Royalties: resources concentrated in the transport sector

Royalties: Approved Resources by sector*
(Accumulated from 2012 to 2016*, US\$ Billions)



Royalties: Participation by sector*
(% of resources approved from 2012 to 2016*)



In addition, a Congressional Act releases in the short term 0,33 billions of dollars to build tertiary roads

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Main 4G projects for the next years



4G Programme (PPP):
USD12,2bn (COP 36,3 billion)
2.755 km.
20 projects
7 years

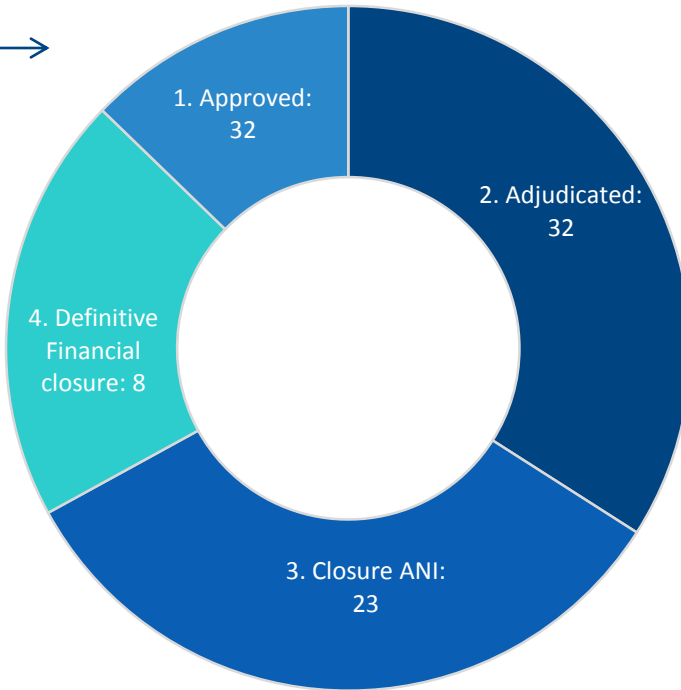


**4G Programme
(Private Initiatives):**
USD4,2bn (COP 12,5 billion)*
2.538 km.
12 projects
8 years

The 4G program has 32 projects and a cost of USD 16,4 bn

Advances in 4G: 32 projects

9 projects from the first wave
 9 projects from the second wave
 2 projects from the third wave
 12 Private Initiatives

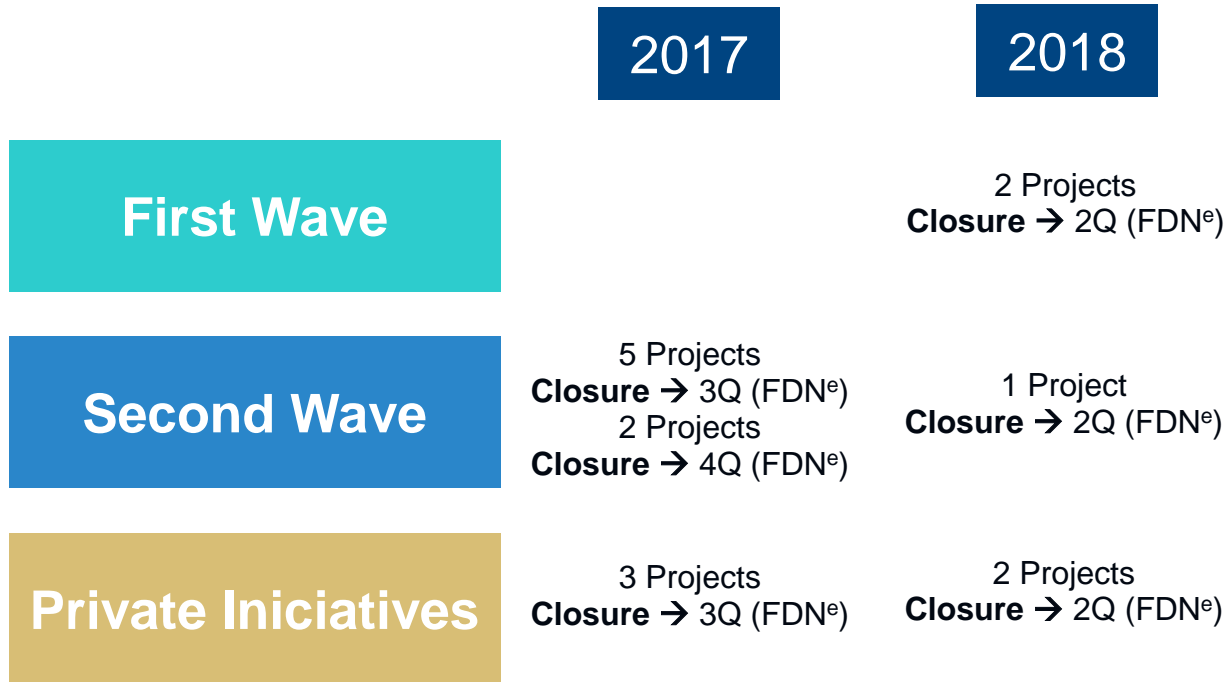


Conexión Pacífico 3
 Perimetral de C/marca
 Conexión Pacífico 1
 Cartagena – B/quilla
 Conexión Norte
 Conexión Pacífico 2
 Girardot – Cajamarca
 Girardot – Puerto Salgar



23 among the 32's 4G projects with contractual financial closure from the ANI have final financial closure. There are 15 projects lacking final financial closure

15 projects waiting for final financial closure



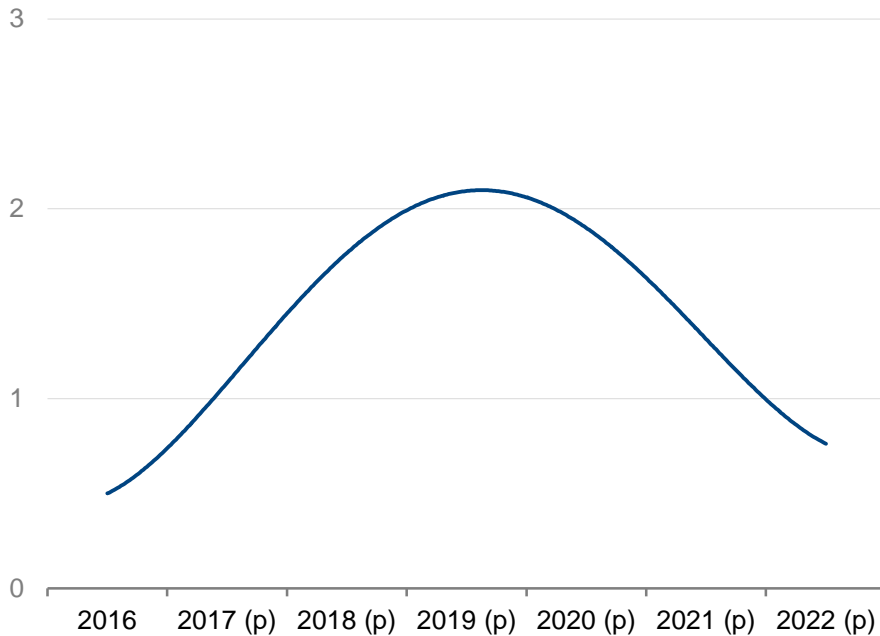
According to the FDN 10 among the 15 projects will be having final financial closure by 2017 and 5 by 2018

4G projects with final financial closure*

	Origin-Destination	Length Granted	Total CAPEX (Billions of USD)	Advance (%)	Contract date - End of construction phase
CONSTRUCTION ON TIME					
4G - FIRST WAVE	Girardot - Honda - Puerto Salgar	190	0.39	30.5%	18/01/2018
4G - FIRST WAVE	Cartagena Barranquilla 4G	147	0.47	27.0%	18/10/2018
4G - FIRST WAVE	Autopista Conexión Pacífico 2: Bolombolo - La Pintada - La Primavera	98	0.42	16.4%	10/10/2020
4G - FIRST WAVE	Autopista Conexión Pacífico 3: La pintada - La Felisa - Irra - Tres Puertas (Conexión Autopistas del Café) y la Felisa - Asia - La Virginia Variante tesalia 1	146	0.58	13.5%	03/10/2020
4G - IP	IP - Girardot - Ibagué - Cajamarca	35	0.39	11.0%	13/04/2020
4G - FIRST WAVE	Perimetral Oriente de Cundinamarca	154	0.43	10.3%	13/04/2024
4G - FIRST WAVE	Autopistas conexión Norte: Remedios - Zaragoza - Caucasia 1	145	0.42	1.2%	05/01/2021
PRE-CONSTRUCTION EXTENDED					
4G - FIRST WAVE	Autopista Conexión Pacífico 1: Ancón Sur - Camilo Cé - Bolombolo	49	0.73	0%	Controversy

BBVA: 4G's slower execution than the Government

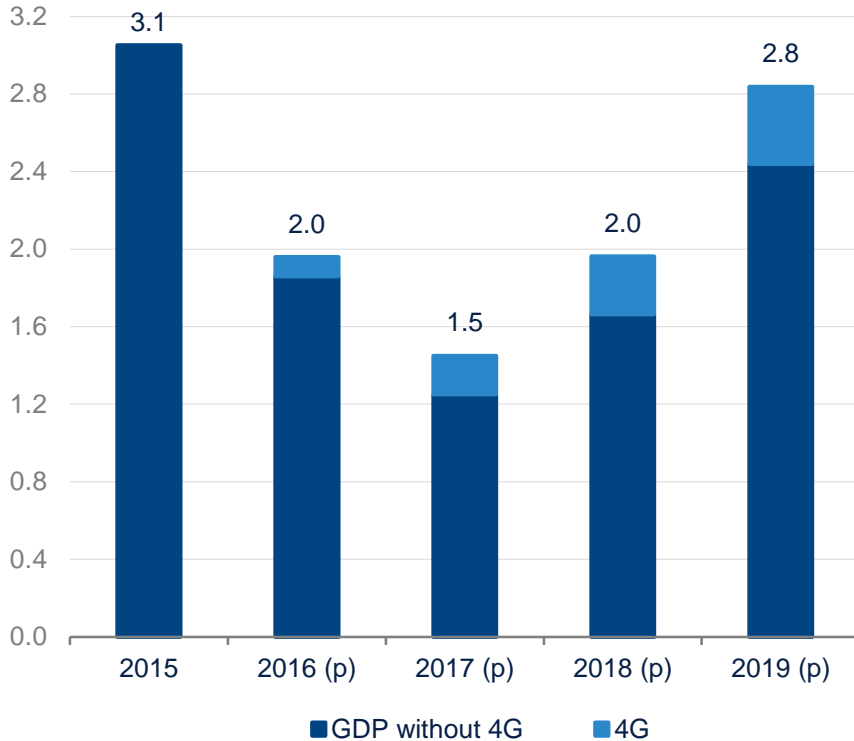
BBVA's execution path scenario
(US\$ Billions)



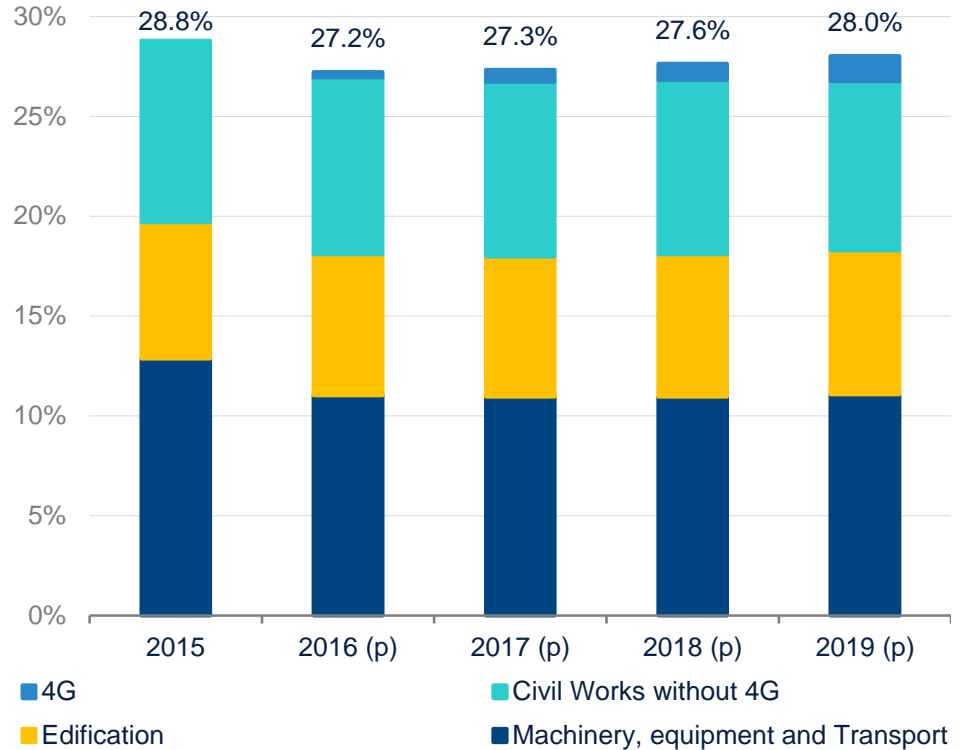
- Possible delays in the financial closing of the next stage of 4G because of the reputation risk associated to Odebrecht
- Odebrecht' scandale could delay the 4G's excecution. Our scenario includes an excecution of 1,17 billions of dollars in 2017 and a peack in 2019
- The Government's scenario is considerably more optimistic in 2017

4G: impact on growth

Economic Growth: includes 4G contribution (Percentage points)



Total investment by component (% of GDP)



Although 4G works have a significant impact on GDP growth, their amounts are not so high as a proportion of total investment

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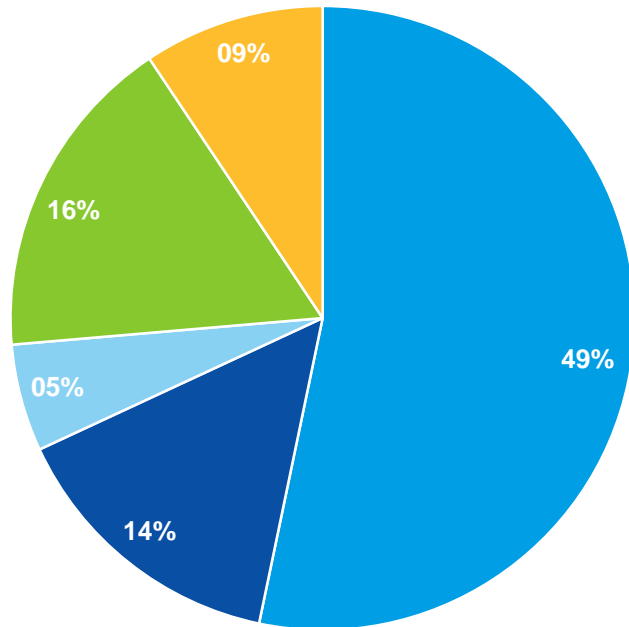
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Efforts made to diversify funding sources

Financing according to the source (8 projects)

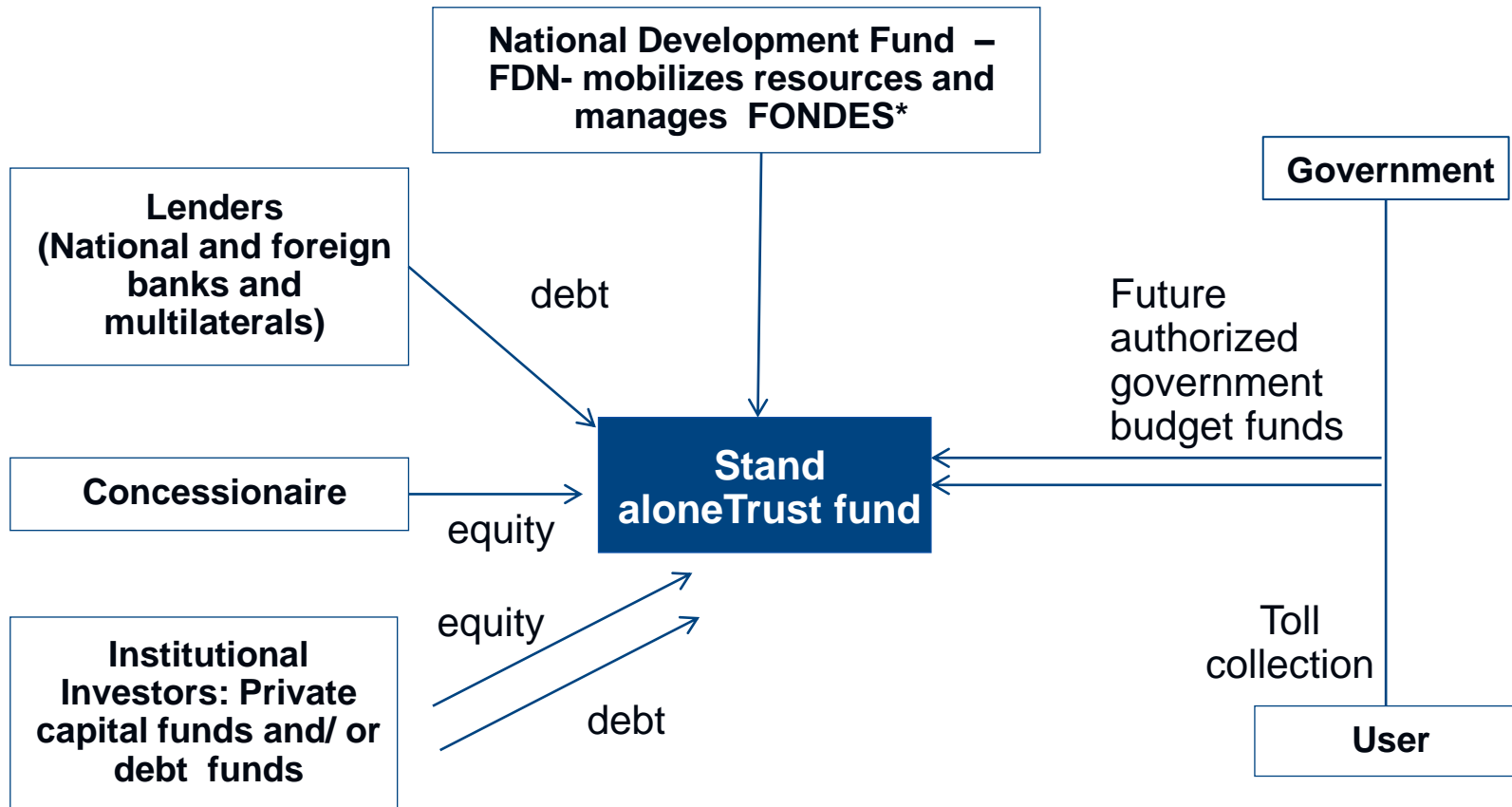
(%, March of 2017)



■ Local Bank ■ International Bank ■ Debt Funds ■ Bond Issue ■ FDN

- Local banks have financed about the 50% of the projects with financial closure
- 7 local banks, 8 international banks, and 2 debt funds have intervened. There have been two bond issues
- Financing in COP from foreign investors is being searched by the FDN

Efforts made to diversify funding sources



The investment limit of pension funds in 4G has been increased

Private capital funds – FCP – (allowed before 4G)

- Conservative pension fund and programmed retirement: not allowed.
- Moderate pension fund: up to 5% of the fund's total value
- High risk pension fund: up to 7% of the fund's total value
- Long term severance Portafolio : up to 5% of the fund's total value
- Short term severance : not allowed

Debt investment (Decree 816, 2014)

Decree 816, April 2014, allows for the investment of pension funds through debt. Private capital funds “will be permitted to invest in a debt incurred on by a concessionaire that has been constituted to develop infrastructure projects under the PPP scheme, (PPP) described in Law 1508, 2012, in a direct or indirect way through an autonomous patrimony, or under a universality. Likewise they will be able to issue credits and purchase debt portfolios, as long as that in both cases these are destined to the financing of the mentioned projects. “

Conclusions

- Colombia is substantially behind in terms of infrastructure
- Progress is being made towards the right direction. 31 projects have been awarded, and the financial closing of 8 projects has been completed, as well as the contractual closing of 23 projects. Nevertheless, some problems persist concerning communities and recent reputation risks,
- For example, some projects have legal gaps when liquidating contracts in advance.
- Concessionaires are trying to divide their participation. The diligence to implement some projects directly depends on the diligence to carry out these divisions.
- Financing from foreign investors is being searched for, To this avail, financing in COP's is being made available.

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