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Alternative operators investing in NGNs: A causal analysis of the case in Spain

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Broadband market evolution

2007

	ADSL	HFC	Others	Total
Telefónica	4.313.000	-	-	4.313.000
Ono	49.000	1.227.000	0	1.277.000
Orange	701.000	-	-	701.000
ya.com	442.000	-	-	442.000
Tele2	258.000	-	-	258.000
Jazztel	240.000	-	-	240.000
Euskaltel	5.000	159.000	4.000	168.000
R	2.000	114.000	0	117.000
Telecable	-	81.000	-	81.000
Others	34.000	-	29.000	63.000
Total	6.045.000	1.581.000	34.000	7.660.000

Fuente: CMT Annual Report, 2007

2013

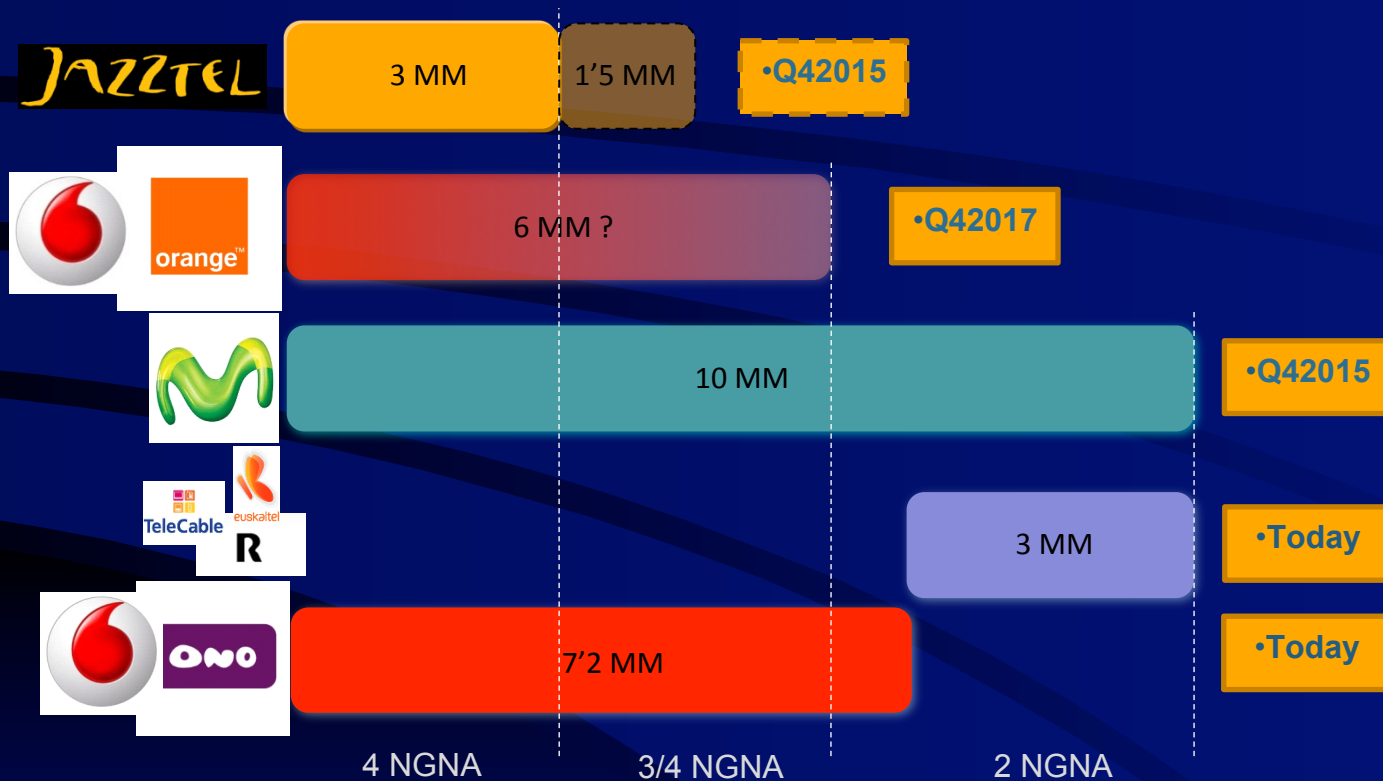
	xDSL	HFC	FTTH	Others	Total
Telefónica	5.114.002	0	597.888	429	5.712.319
Ono	70.138	1.466.363	0	0	1.536.501
Orange	1.692.543	0	0	0	1.692.543
Vodafone	954.606	0	0	0	954.606
Jazztel	1.429.393	0	428	0	1.429.821
Euskaltel	2.086	254.186	0	3.722	259.994
R	21.605	192.618	0	0	214.223
TeleCable	0	113.129	7.924	641	121.694
Others	30.359	49.218	3.078	57.482	140.137
Total	9.314.732	2.075.514	609.318	62.274	12.061.838

Fuente: CMT Annual Report, 2013

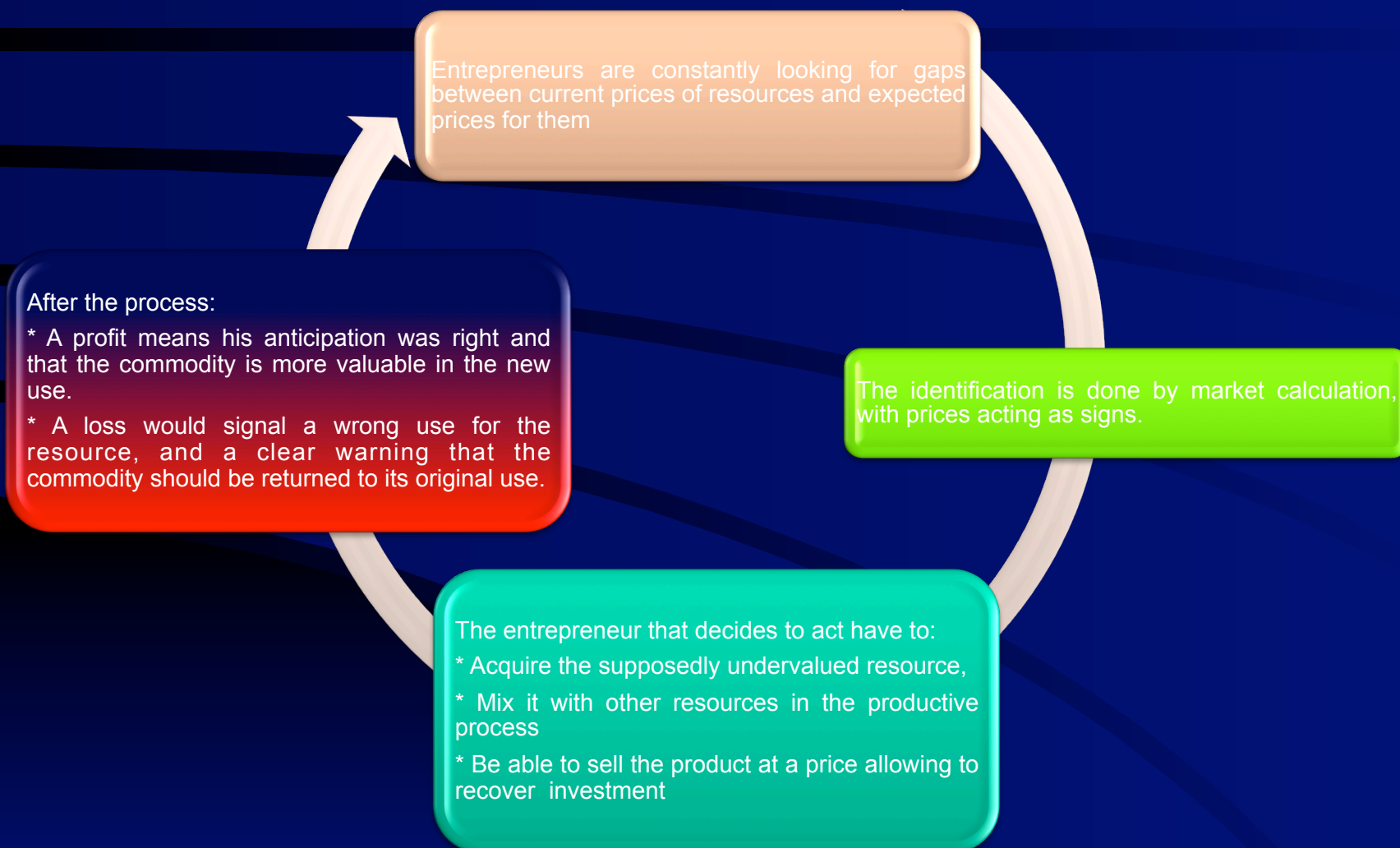
Events in the Broadband Market in Spain

- 2007: Telefónica starts deployment of FTTH
 - 2009: *FTTH wholesale access not regulated over 30 Mbps*
- 2012: Telefónica launches Fusion
- 2012: Agreement Jazztel–Telefónica to share FTTH
- 2013: Agreement Orange-Vodafone to share FTTH
 - 2013: *CNMC is created*
- 2014: Vodafone buys ONO
- 2014: Telefónica offers FTTH migration to DSL costumers

NGA roll-out plans



The market as a dynamic discovery process



Interaction of market process and regulation

The undiscovered discovery process

- Regulators may not correctly address the market course in the absence of regulation.

The un-simulated discovery process

- Regulators have no incentives in profit seeking.

The stifled discovery process

- Regulation may inhibit desirable discovery processes which the market might have generated.

The wholly superfluous discovery process

- Regulation may create opportunities for market discovery processes which would not be relevant in an unregulated market

Entrepreneurial process of Fusión

- 1) Telefónica spots a business opportunity (4-play products)
- 2) High take up of Fusión is interpreted as a success.
- 3) Rest of operators launch their own 4-play package.

- Using wholesale regulated services together with retail price control, they can replicate 4-play products on DSL
- Replication using regulated services not possible for packages with speeds above 30 Mbps

4) As a consequence:

- Telefónica increases the pace of FTTH deployment
- Operators have to look for alternative ways to imitate Telefónica.

Cable operators - Mobile virtual services bundled with DOCSIS 3.0 services

Jazztel - Deployment of own FTTH network (agreement with Telefónica)

Vodafone, Orange - Wait-and-see, pressure on regulator, own agreement

Creation Phase

Imitation Phase

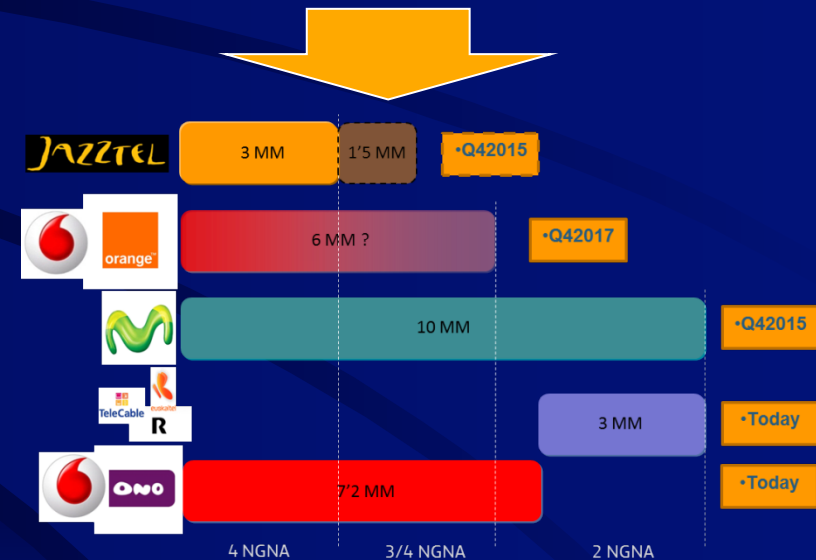
Summary of causal analysis

- Up to 2009, discovery market process was *stifled* by the regulatory possibility of replication.

2007	ADSL	HFC	Others	Total	2013	xDSL	HFC	FTTH	Others	Total
Jazztel	4.313.000	-	-	4.313.000	Jazztel	5.114.002	0	597.888	429	5.712.319
Orpega	49.000	1.227.000	0	1.277.000	Orpega	70.138	1.466.363	0	0	1.536.501
Telecom	701.000	-	-	701.000	Telecom	1.692.543	0	0	0	1.692.543
Telefonos	442.000	-	-	442.000	Telefonos	954.606	0	0	0	954.606
Ono	258.000	-	-	258.000	Ono	-	-	-	-	-
Jazztel	240.000	-	-	240.000	Jazztel	1.429.393	0	428	0	1.430.241
Telecom	5.000	159.000	4.000	168.000	Telecom	2.086	254.186	0	3.722	256.272
Telefonos	2.000	114.000	0	117.000	Telefonos	21.605	192.618	0	0	214.223
TeleCable	-	81.000	-	81.000	TeleCable	0	113.129	7.924	641	121.694
Ono	34.000	-	29.000	63.000	Ono	30.359	49.218	3.078	57.482	132.647
Total	6.045.000	1.381.000	34.000	7.460.000	Total	9.314.792	2.019.514	609.318	10.943.624	11.937.624

Ya.com was acquired by Orange and Tele2 by Vodafone
Telecable employs the Asturcon fiber network to provide NGA access in Asturias

- Fibre-Fusion success cannot be imitated by replication using regulated services.
- Discovery market process runs unhindered for FTTH products.



Situation in other EU Countries

	Effective regulation of wholesale access to fibre	NGN Deployment by ULL- based operators	NGN Deployment by former monopolist	NGN Deployment by Cable operators
DE	yes		34%	62%
SE	yes		65% (jointly with municipalities)	38%
PT	No	18%	40%	80%
FR	No	3-13%	7%	18%
NL	yes		22%	95%
ES	No	8%	22%	54%

Conclusions



There is a causal relation between the lack of regulated wholesale services for speeds above 30 Mbps and the deployment of NGN access by ULL-based operators in Spain.



Absent that regulation, the discovery market process has not been stifled, because alternative operators are forced to look for new ways to serve the consumer if they want to stay in the market.



The causality between both phenomena seems to hold when extending the analysis to other EU Countries.

Thank you for your attention.

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Methodological Issues

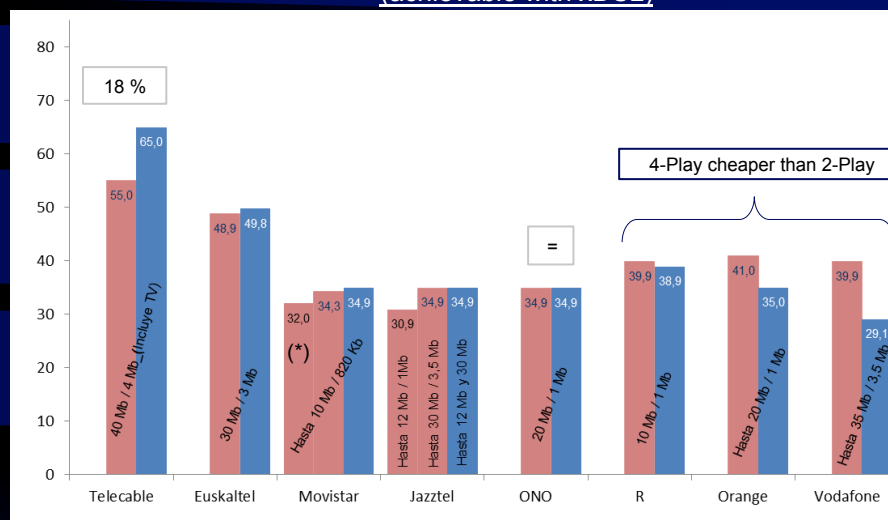
- Austrian School of Economics
 - **Methodological individualism:** all economic phenomena are the result of actions and interactions of individuals
 - **Methodological subjectivism:** human acts allocating its resources to the satisfaction of those needs more urgent.
 - Praxeology statements are a priori; theories concerning human conduct cannot be derived from experience.
 - No need for real cases to apply praxeology to a concrete economic problem.

Austrian Economics builds its theory starting from the axiom that humans act and do so to satisfy its ends according to a given scale of values. From here, and through logic reasoning, laws governing economy can be deduced.

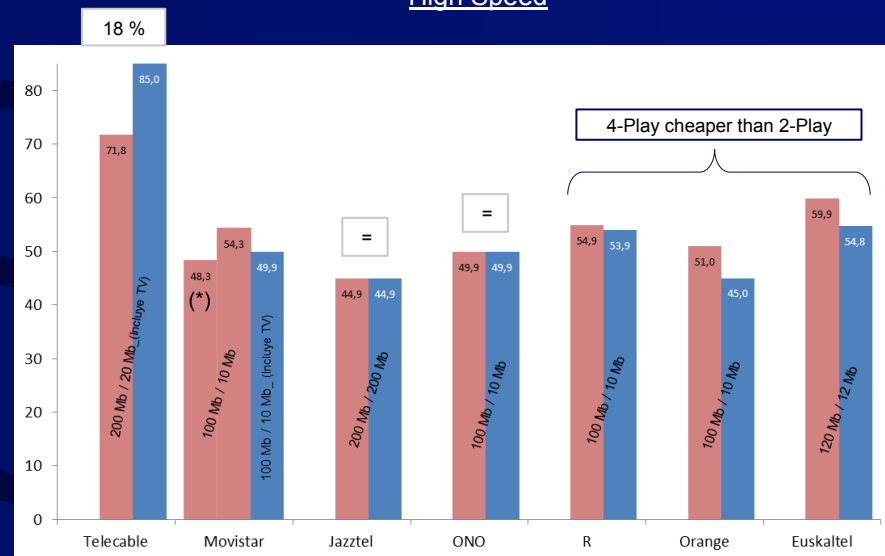
Imitative process: Vodafone and Orange

Prices 4-Play (Entry Offer) vs 2-Play

Medium Speed
(achievable with xDSL)



High Speed



■ 2-Play Fixed Broadband+ Fixed Voice

■ 4-Play Fixed (Broadband + Voice) + Mobile (Broadband + Voice)

(*) Available only on-line

Data as of January 2014