

The seeds of competition in long-distance rail transport. Comparing the early open-access countries

New Mobility - High-Speed Transport Systems and Transport-Related Human Behaviour, CZ.02.1.01/0.0/0.0/16_026/0008430



The seeds of competition in long-distance rail transport. Comparing the early open-access countries

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for Transport Economics,
Geography and Policy



CONTENTS

-  Introduction and aims
-  Data
-  Country cases
-  Comparisons
-  Findings and conclusions

Introduction and aims

European long-distance rail market

European liberalization in the **long-distance rail market** is extremely uneven.

Some countries were forerunners while others waited (and still wait). Also, in some countries, newcomers remained small, while in others grew to become *large* competitors.

Many changes are expected in SP and limitedly in FR in the next future

	<i>competitors (until now)</i>	<i>trend</i>	<i>competitors (future)</i>
Germany	niche operators in the 10s', now Flixbus	growing	Flixbus slowly expanding?
UK	franchises + some open access	growing	
Italy	one big competitor (Italo)	stable	Flixbus withdrew...
Czech Rep	two competitors that became big	growing	expansion of routes especially abroad
Slovakia	<i>see Czech Rep.</i>		
Poland	<i>see Czech Rep.</i>		
Hungary	<i>see Czech Rep.</i>		
Croatia	<i>see Czech Rep.: turistic services</i>		
Austria	one big competitor (Westbahn)	stable	
Sweden	one competitor (MTR) + franchises	growing	Flixbus just entered
France	-		Trenitalia will enter before 2022 on Milan-Paris 5xday Flixbus withdrew...
Spain	-		Two large competitors starting (ILSA and Ouigo)
Belgium			Flixbus withdrew...

Introduction and aims

What operators (may) change in competition

1) Prices

- Average price
- Price dispersion
- Promotions and fidelisation tickets

2) Frequency / capacity

- Sold-out trains

3) Quality

- Classes
- Seats space / low-cost trains
- Stations

4) Network (new services)

Introduction and aims






Paper aims

- Studying and **comparing** the cases of on-track competition in rail is **much more complex than in other sectors** (e.g. low-cost carriers vs. legacy airlines), since
- the “products” are totally different (speed&timetable in air sector does not matter)
 - size of the competitors is varied
 - intermodal competition (again, very heterogeneous) matters
 - regulation “out of the books” is different across countries

The paper provides a broad-scope comparison of some relevant European long-distance rail markets, both belonging to liberalised and non-liberalised countries, with the aim to point out the patterns, risks and opportunities of market opening.

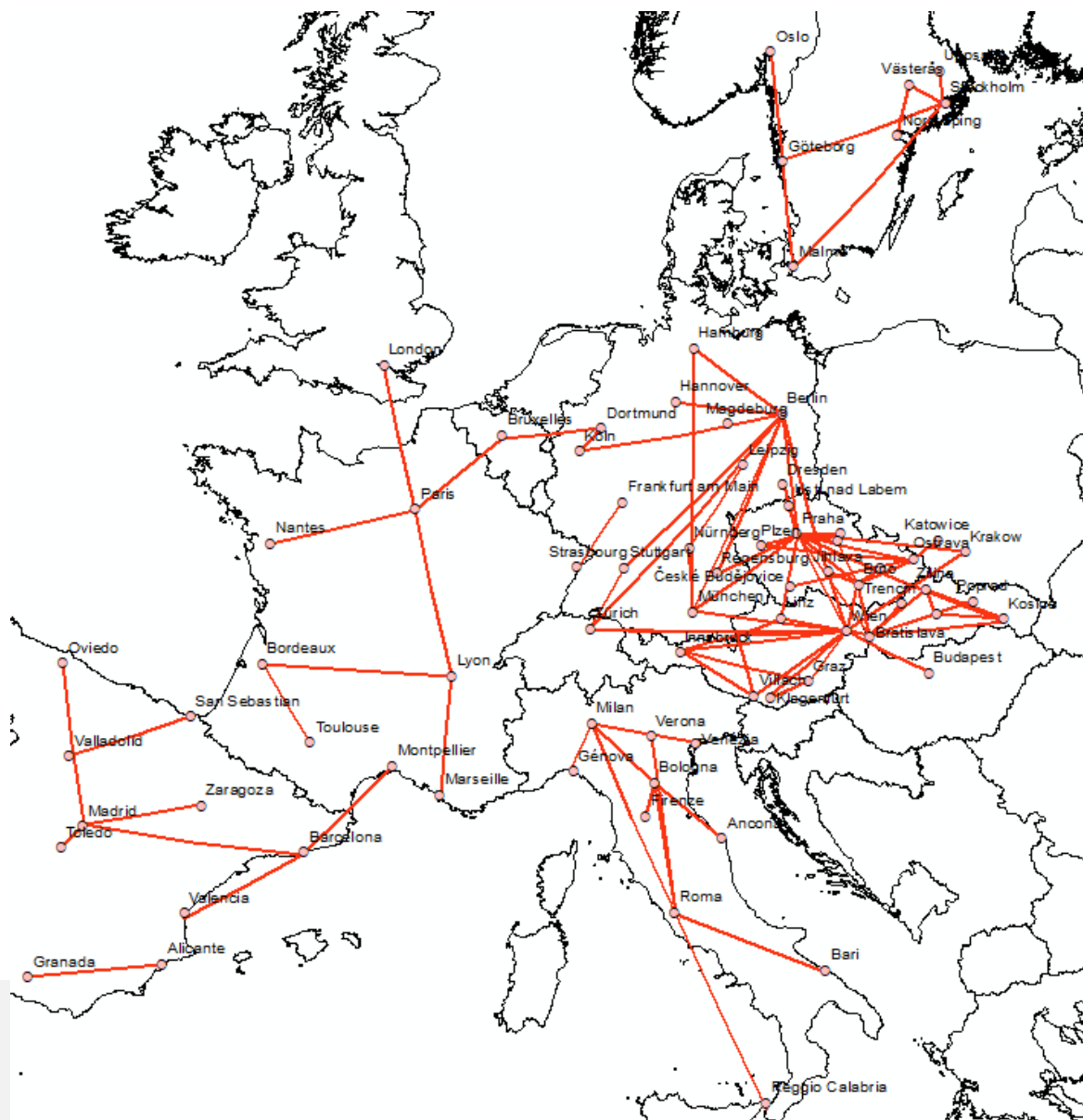
The paper is still preliminary, as just ¼ of observed routes is consolidated

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Database contents

- ✓ Liberalised/not
- ✓ Domestic/international
- ✓ LongDist/regional
- ✓ Multimodal/not
- ✓ -1/-10 days before



Data

Database contents

Sources:

- Checkmybus
- Omio
- Ouigo
- Trenitalia
- ItaloTreno
- České dráhy
- ZSSK
- Vy
- SNCF

Control sources:

- Kiwi.com
- RomeToRio.com
- Idos.cz
- Idos.sk
- OEBS, DB, etc.
- vagonweb.cz

The current paper is based on 26 pairs out of 96

- 25000 classified connections/week (spring) + 23000 (autumn)
- 900k merged records, 300k after cleanup

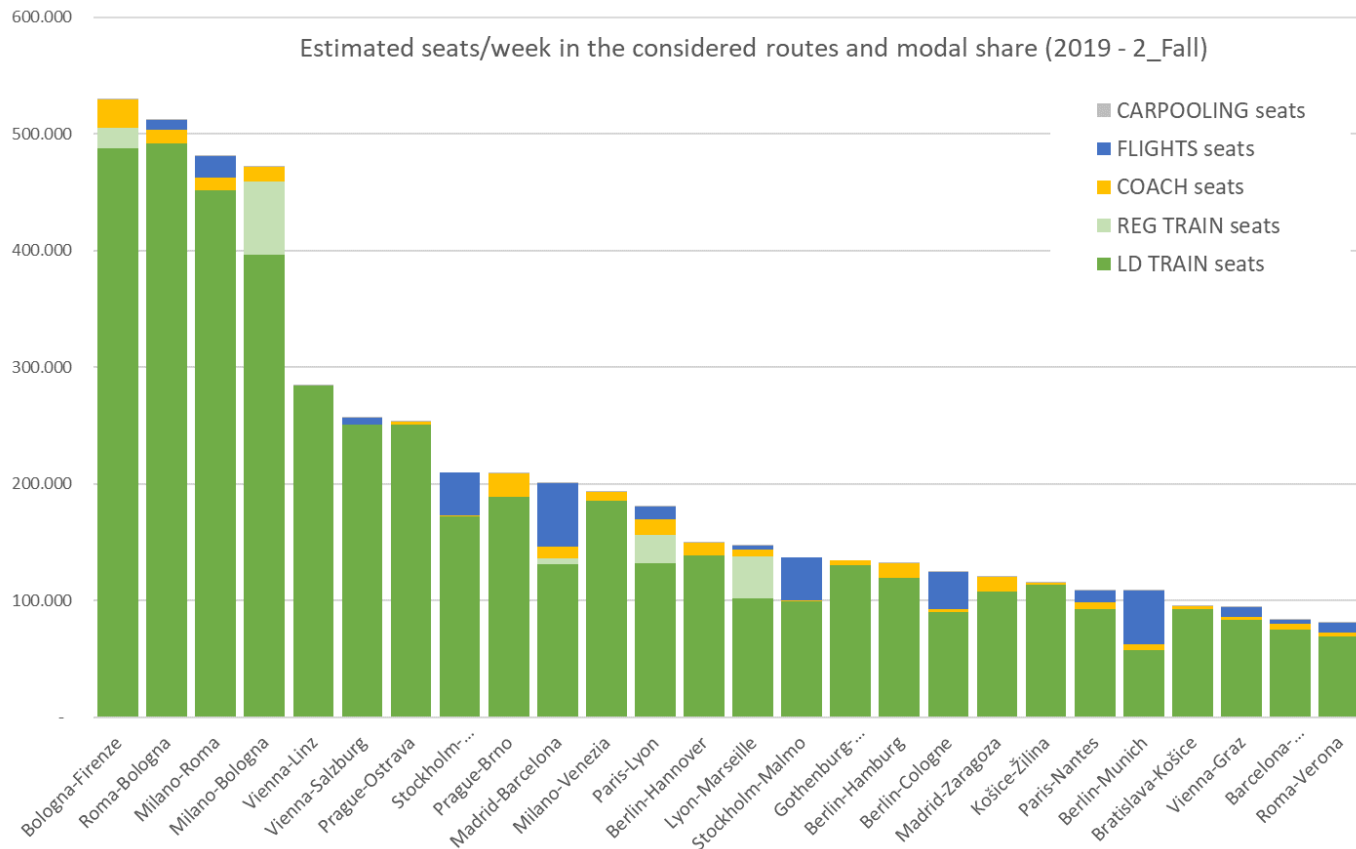
The dataset had to be **cleaned** before the analysis and some issues remain unsolved for the remaining routes:

- Imperfect duplicates
- (Codesharing)
- Train classification
- Train capacity






Data

The analysed pairs

- a) HS routes and routes “HS”-like, such as ICE in Germany
- b) Routes where intramodal competition exists



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Country cases

Italy: Milan-Rome (spring 2019)

Conn./week - route: Milano-Roma

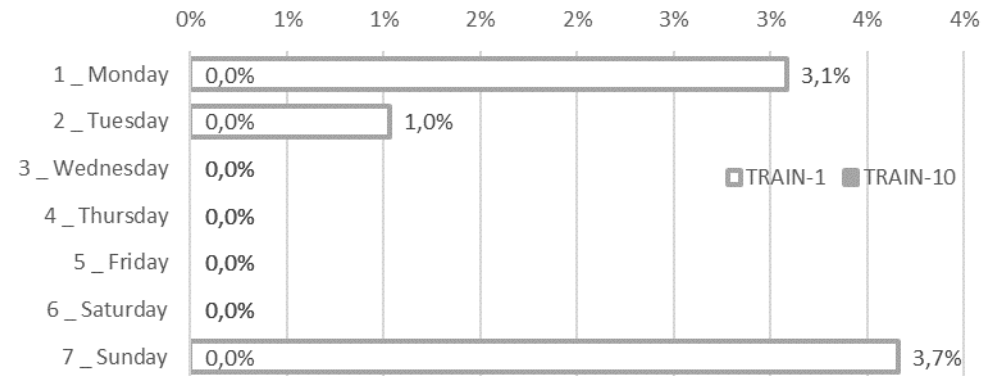


Flights still present on the route, even if HS is largely dominant

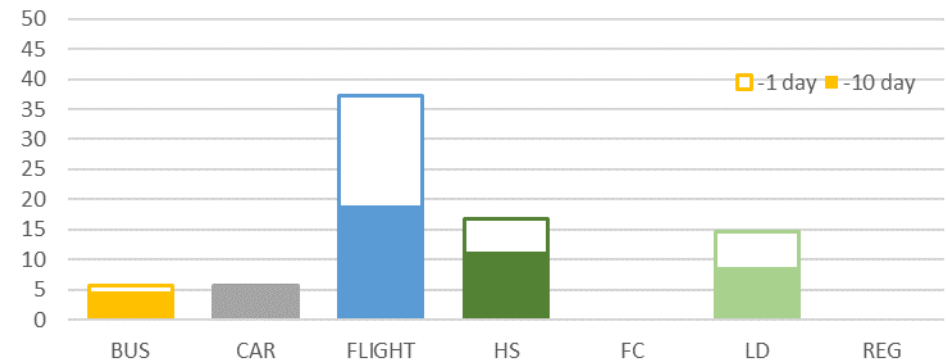
Few sold-out trains -1 day (never -10 days), only in spring.

Flights are expensive (but the urban regions are very large and demand disperse)

Sold out connections



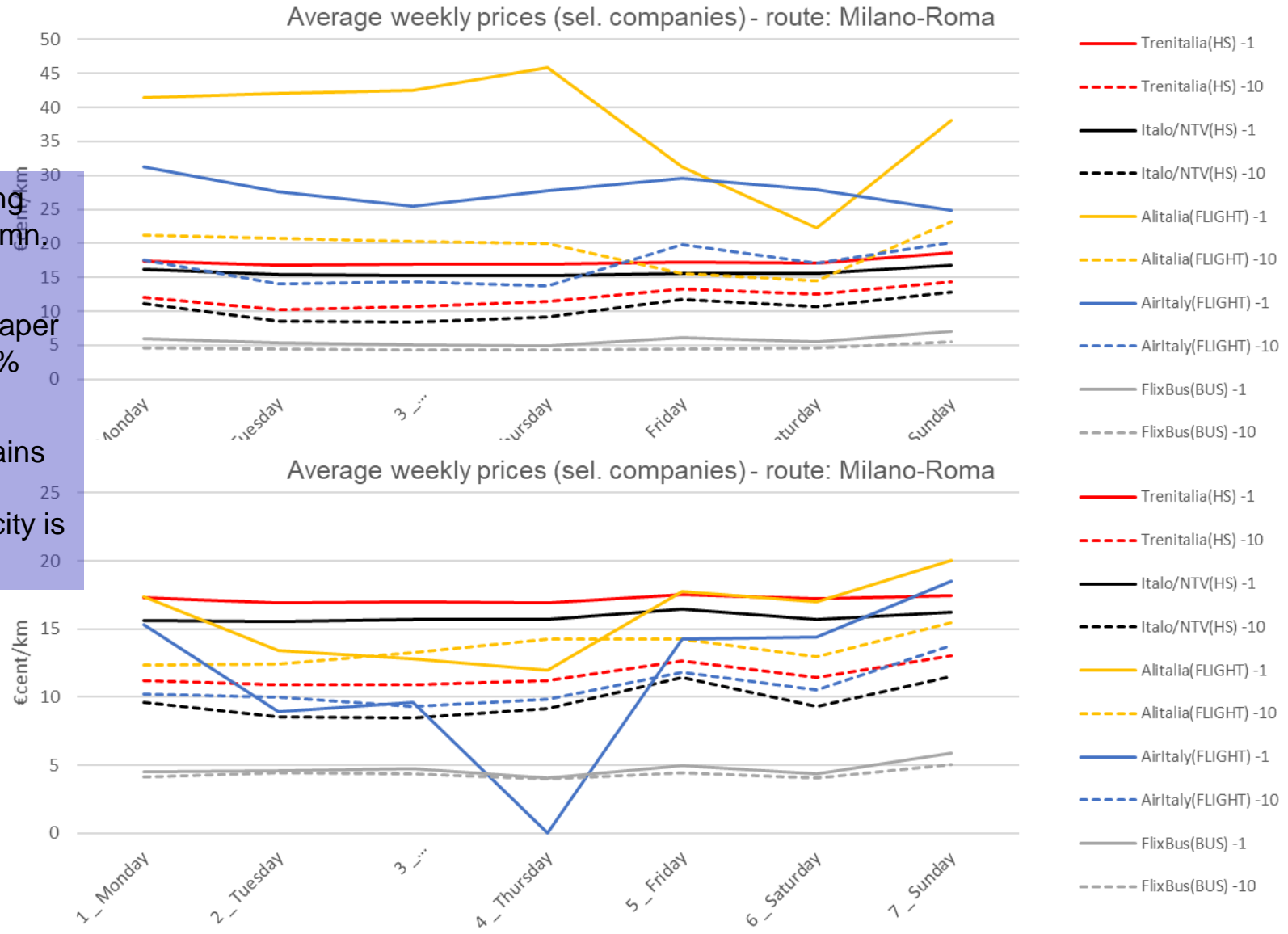
Price €cent/km - route: Milano-Roma



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Country cases

Italy: Milan-Rome



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Country cases

Italy: Milan-Rome (spring 2019)

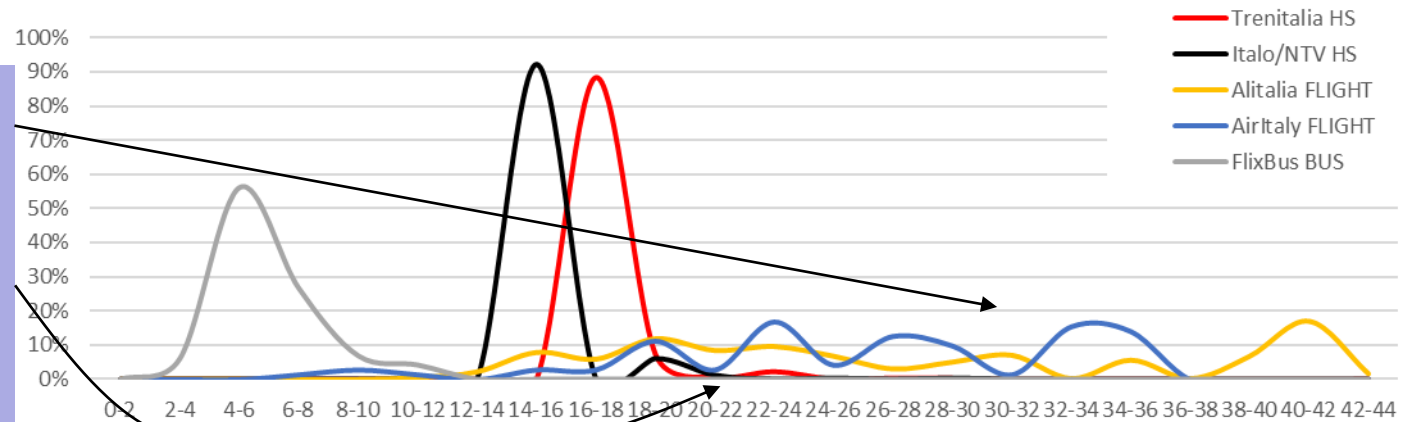
Airlines price dispersion is >>> than others.

-1 day trains do not give any discount: prices are fixed unless trains are full → 1st class is only available

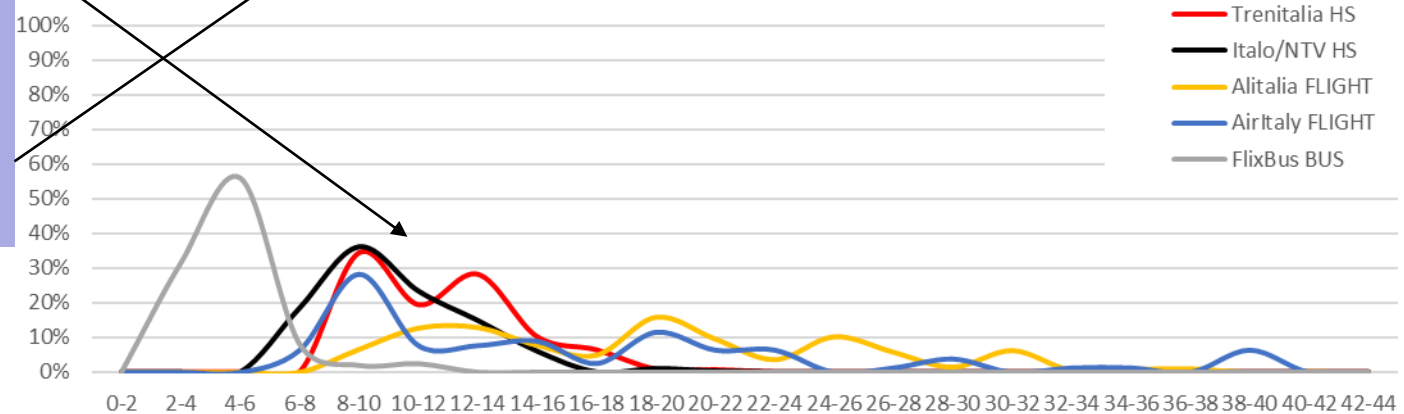
We see some dispersion -10 days

Flixbus is cheaper, but dispersion is very high (even 5x more expensive than cheapest options)

Price distr. per company, 10 day adv. purchase. Route: Milano-Roma. Period: 2019 - 1_Spring



Price distr. per company, 10 day adv. purchase. Route: Milano-Roma. Period: 2019 - 1_Spring



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Country cases

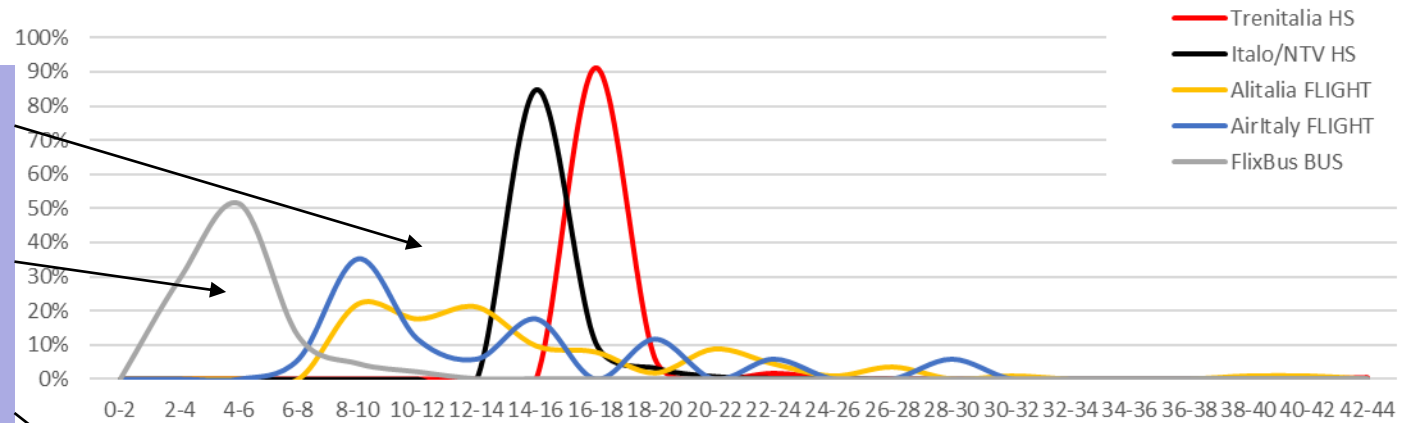
Italy: Milan-Rome (autumn 2019)

Airlines during autumn are << the spring but still dispersed

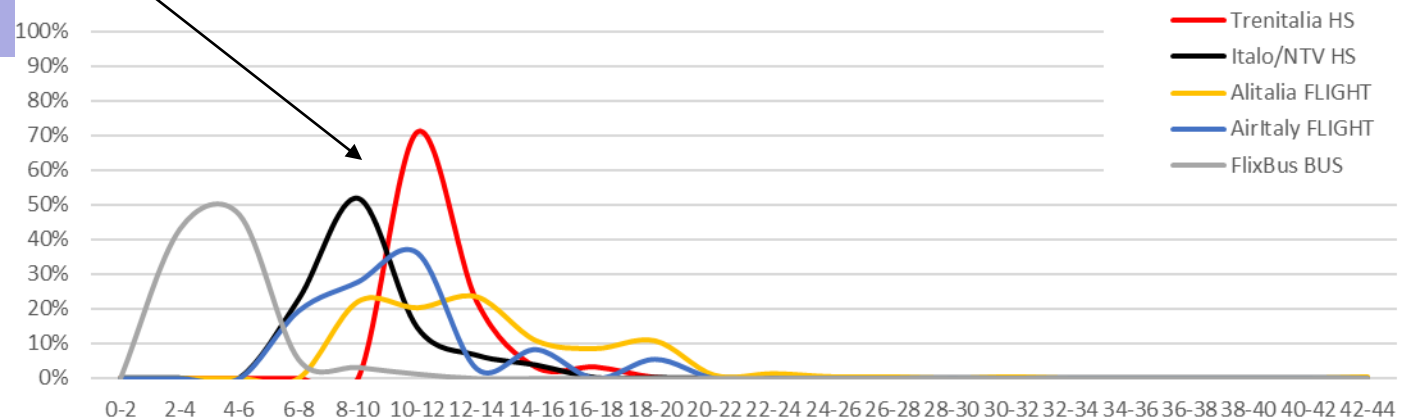
Flixbus is slightly cheaper but not much

Train prices are less dispersed (capacity better used) and not cheaper (it is a business route)

Price distr. per company, 10 day adv. purchase. Route: Milano-Roma. Period: 2019 - 2_Fall



Price distr. per company, 10 day adv. purchase. Route: Milano-Roma. Period: 2019 - 2_Fall

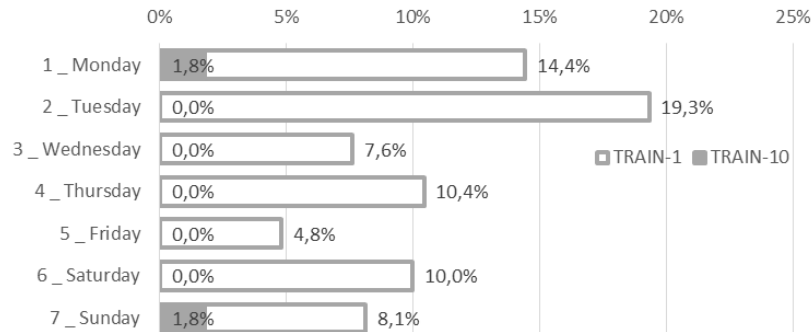


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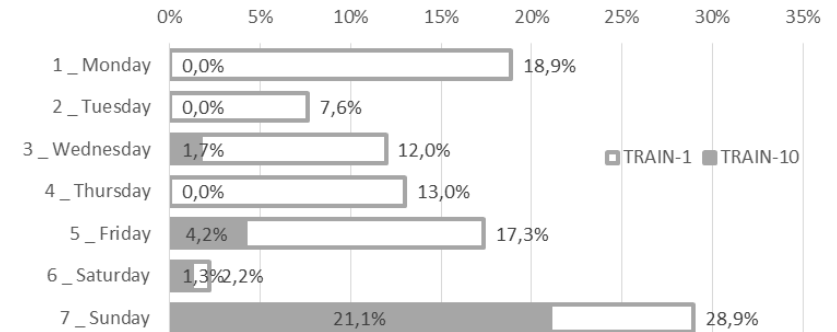
Country cases

France

Sold out connections

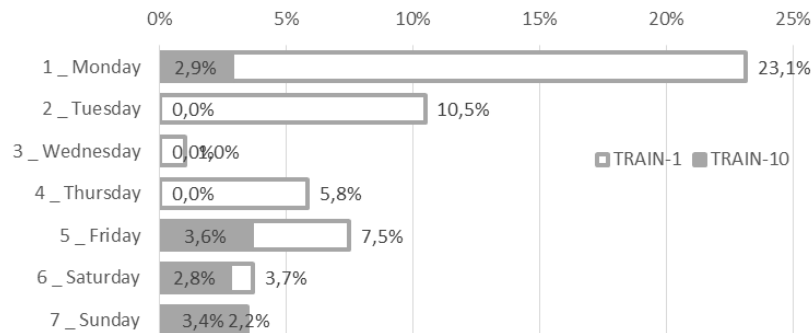


Sold out connections

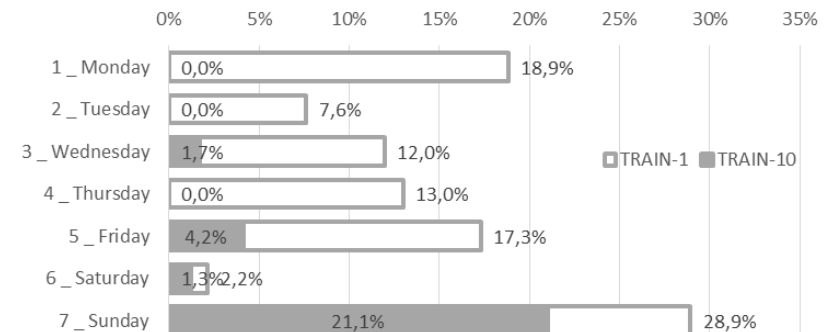


Paris-Lyon (fall + spring) Lyon-Marseille (fall) Paris-Nantes (spring)

Sold out connections








Sold out connections



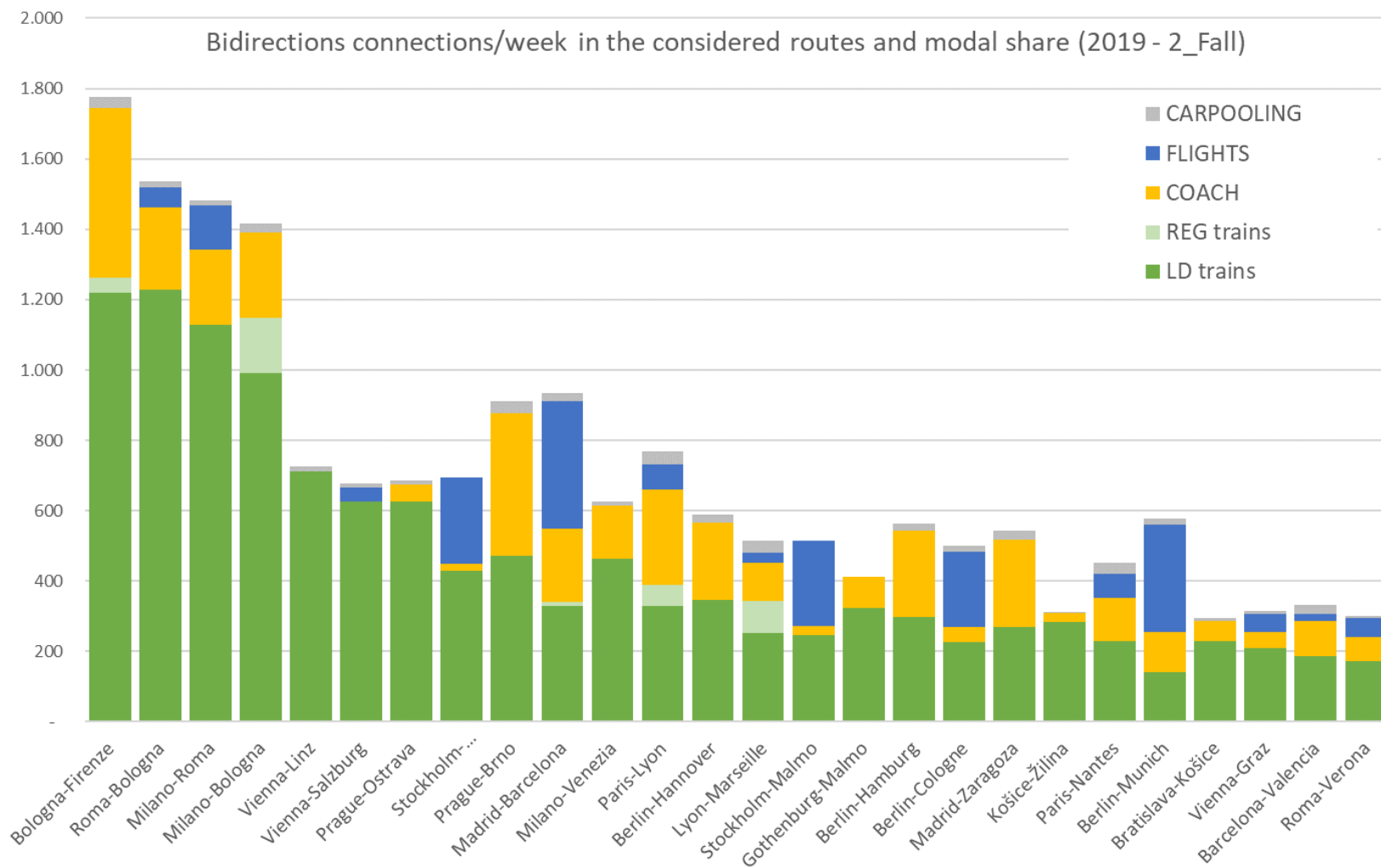
A constant of analysed TGV routes is the incredible number of sold-out connections.

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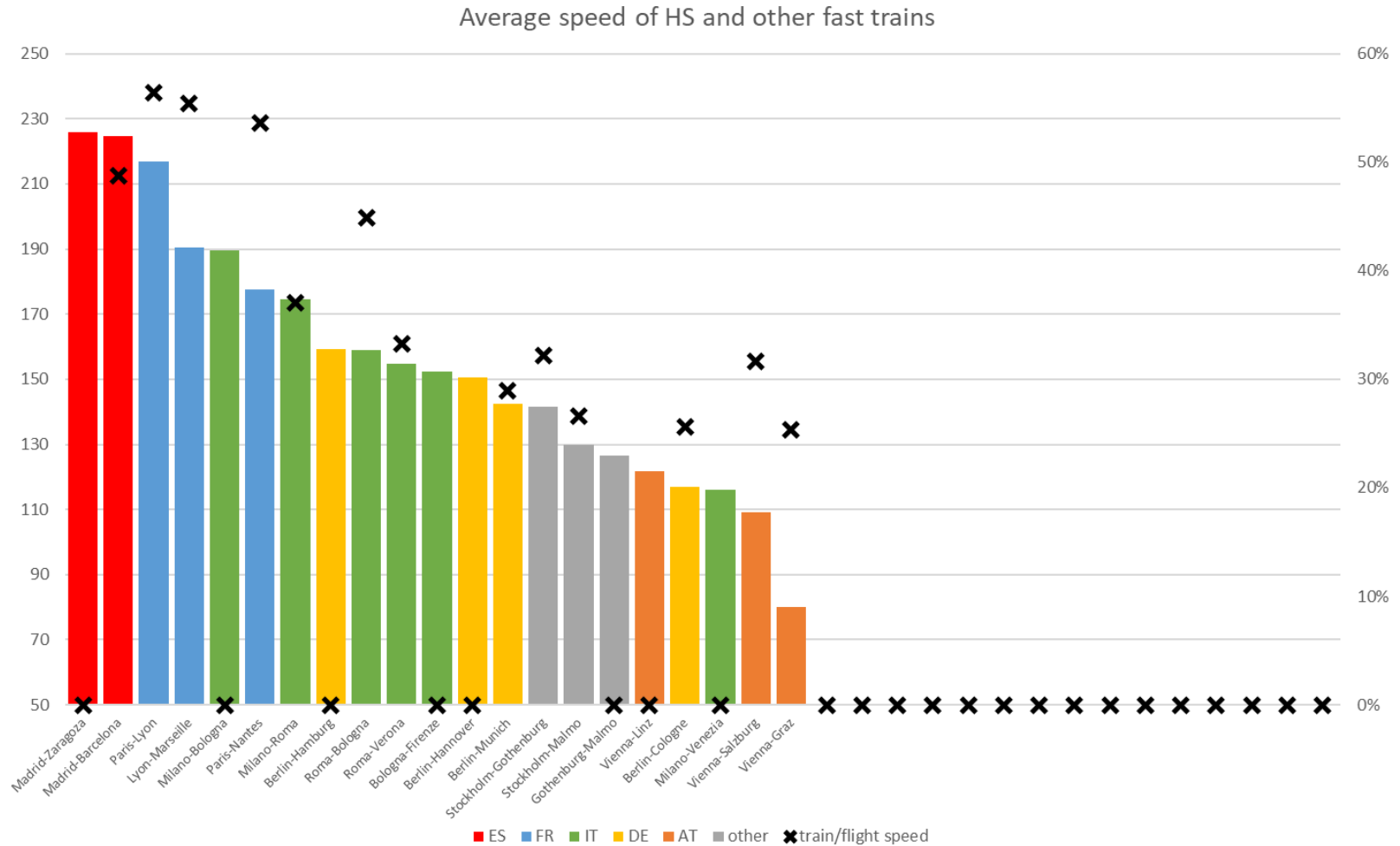
Comparisons

Connections/week



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Comparisons Speed

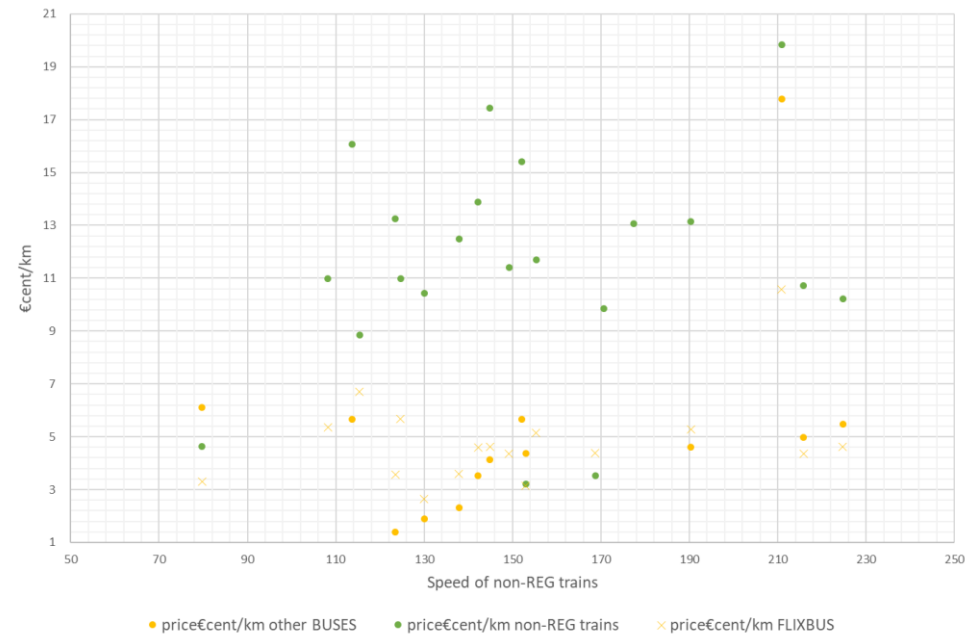
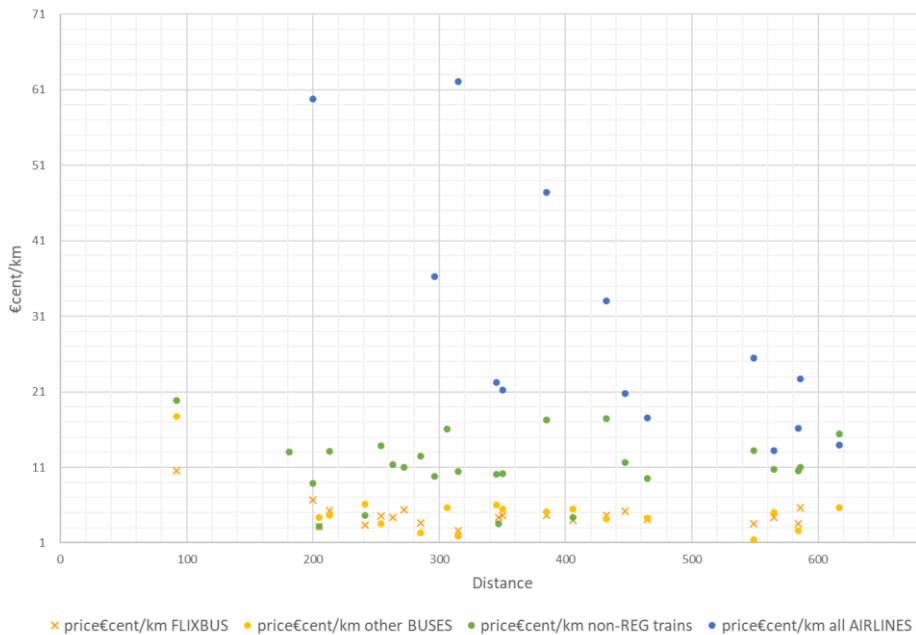


Comparisons

Price vs. distance and speed

Prices in Europe are **not** clearly distance dependent (but in some countries yes: Italy)

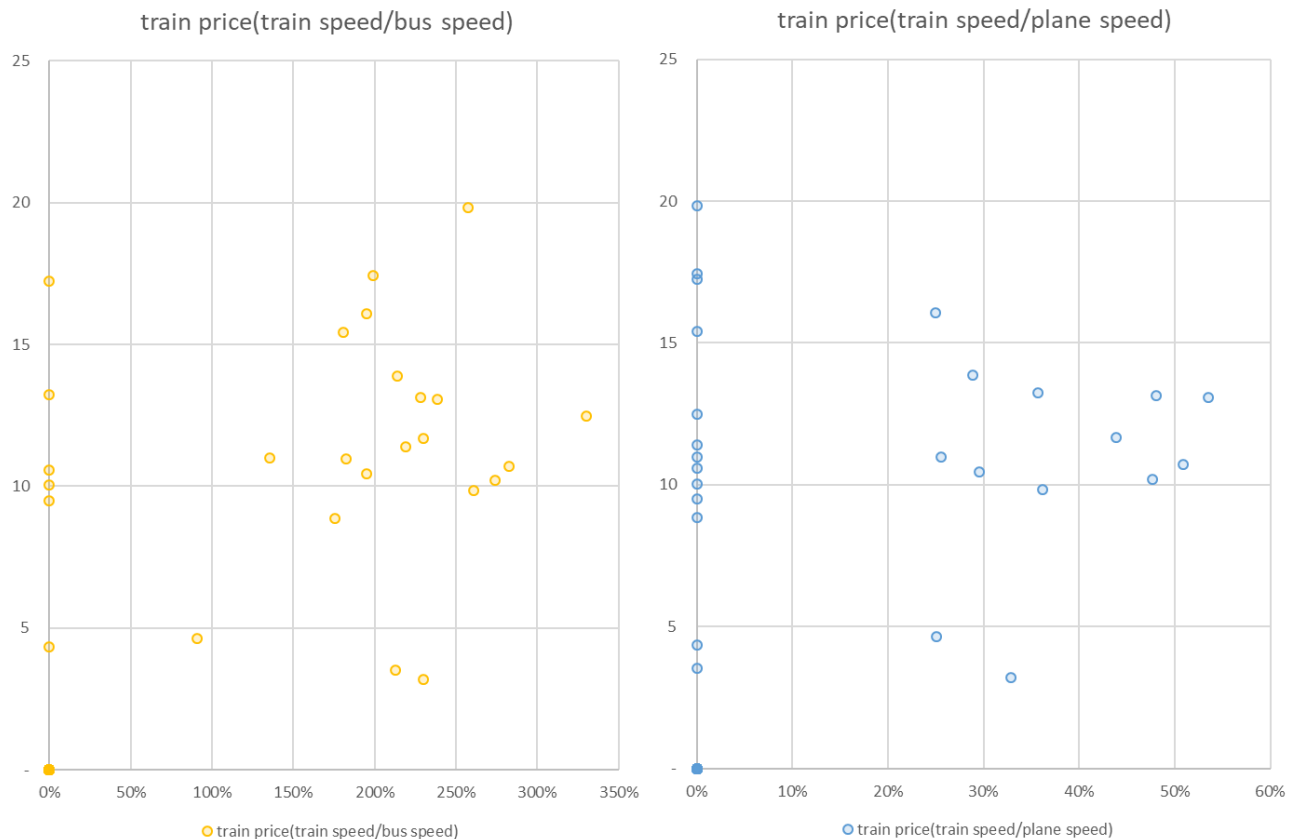
Instead, the **effect of speed is more evident**: between 100km/h and 170 km/h, trains become more expensive with speed. This is not necessarily obvious: fast trains cost *less* to the operator.



Comparisons

Price vs. distance and speed

The effect of speed is even more clear if we refer to the **speed advantage of train** with respect to its intermodal competitors: coach and plane.

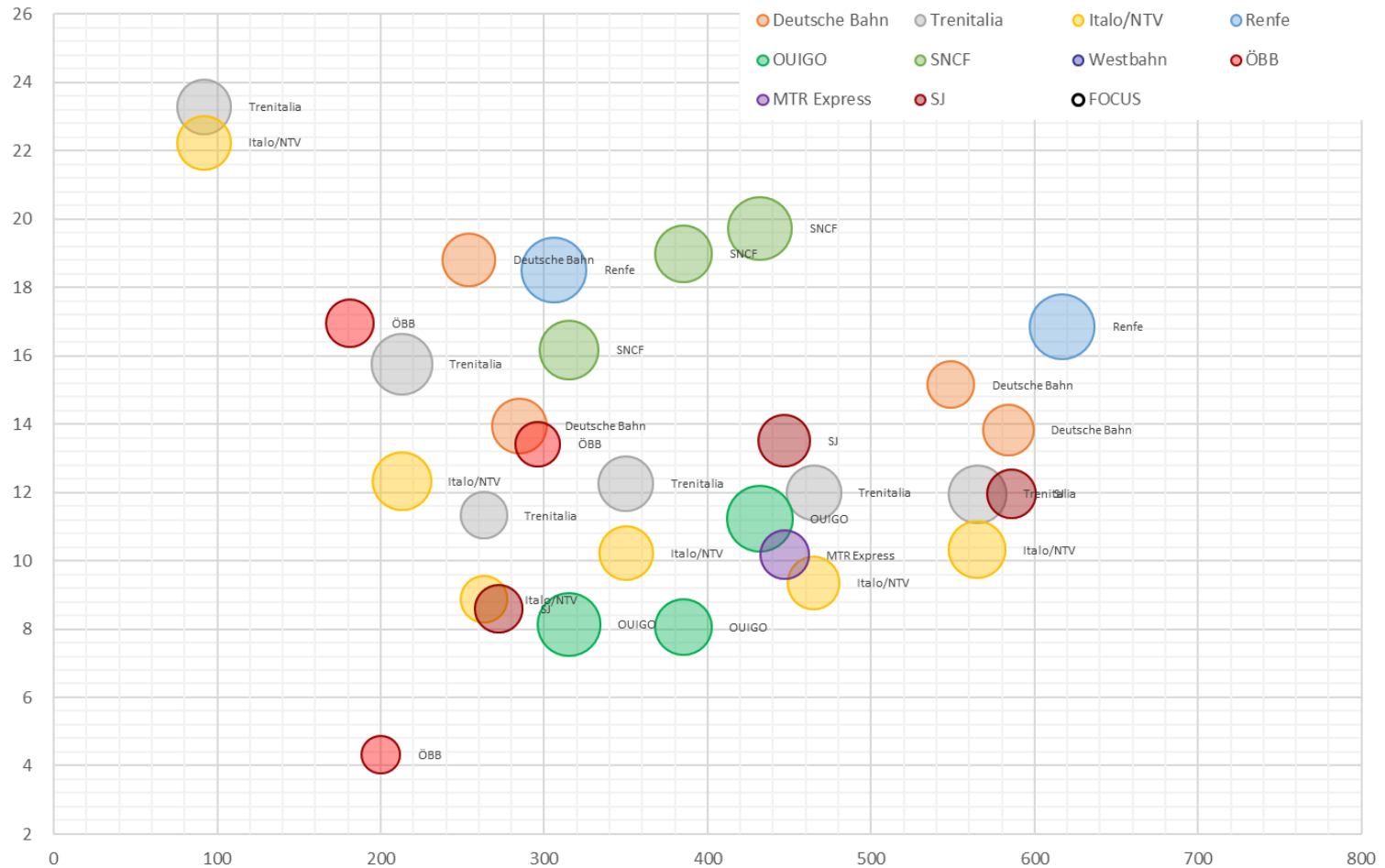


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Comparisons

Prices in Europe (HS+Fast connections) -10 days

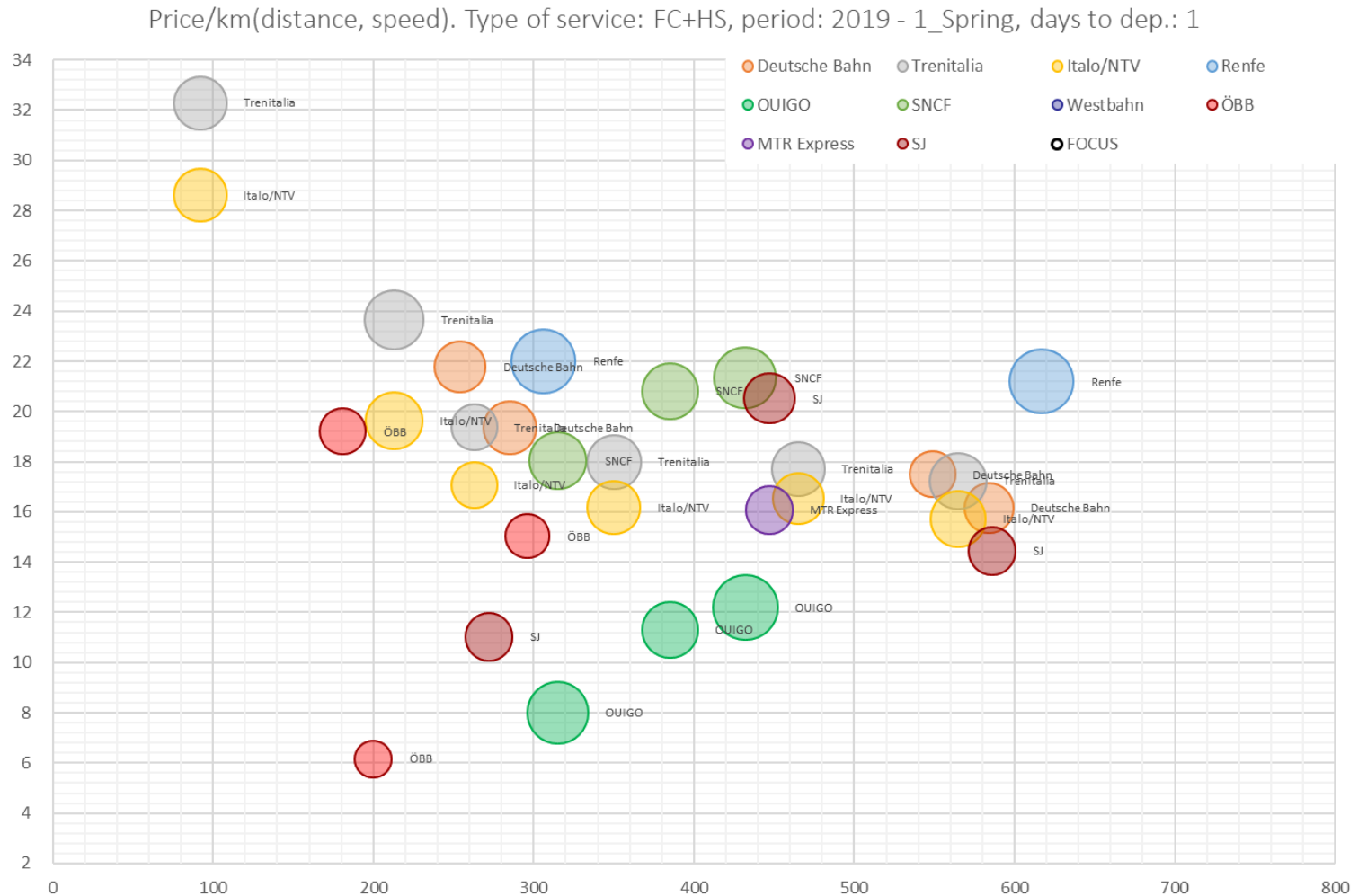
Price/km(distance, speed). Type of service: FC+HS, period: 2019 - 1_Spring, days to dep.: 10



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Comparisons

Prices in Europe (HS+Fast connections) -1 day



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Comparisons

Price dispersion (fast & HS connections)

Renfe and SNCF are similar: broad price dispersion and *extremely* expensive tickets on some rides/days.

SNCF peak is at 22-23 cents, Renfe at 29-30.

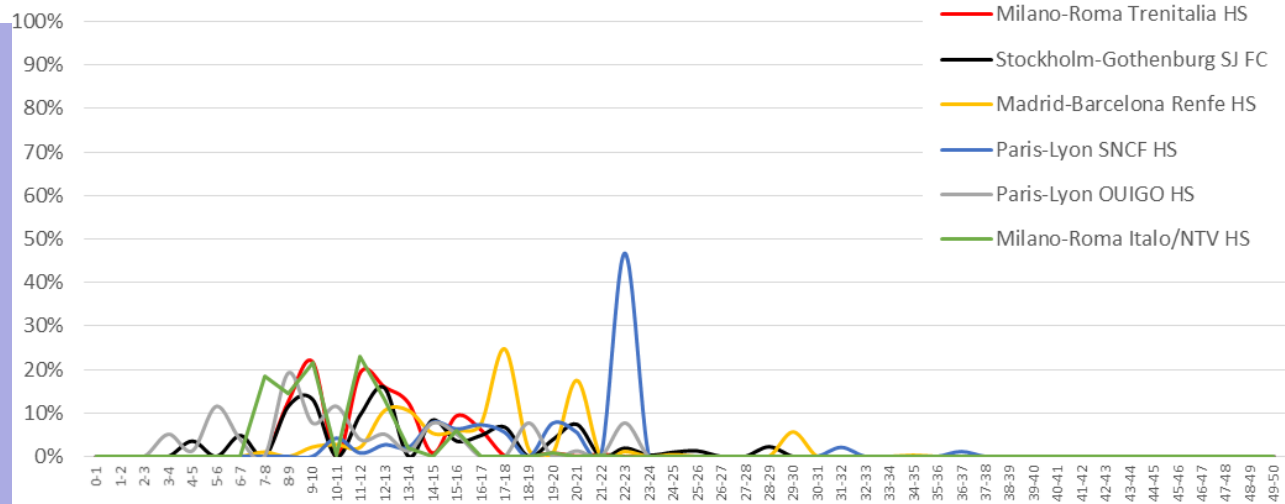
OUIGO fills the low-cost range, but capacity is limited

Italian competitors work on a lower price range with less dispersion.

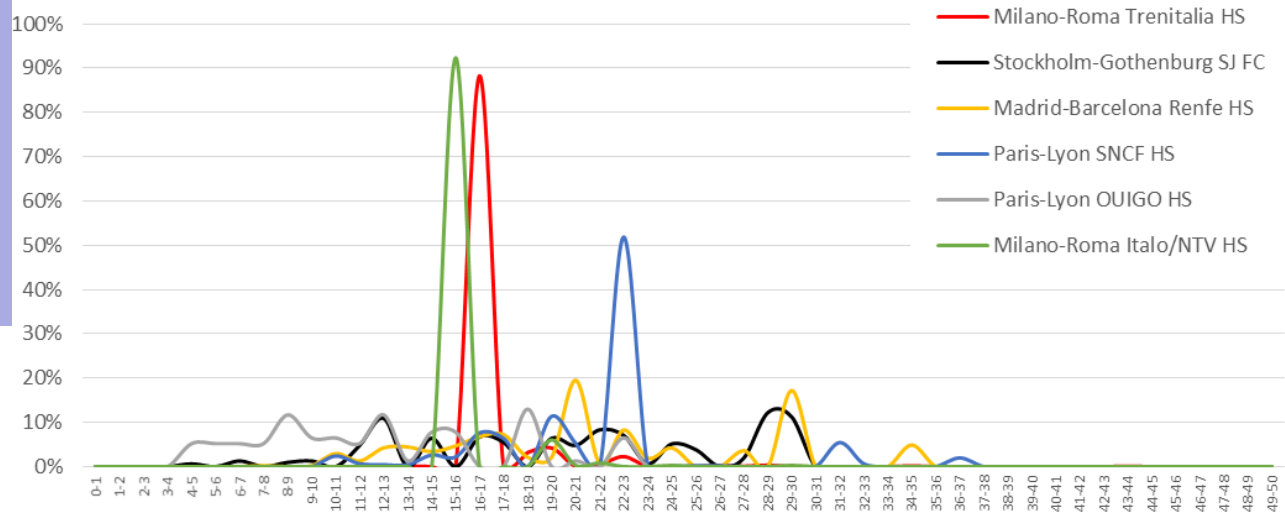
Peak prices are capped and much cheaper than FR/SP ones.

SJ in Sweden is midway: cheap -10 days, expensive -1 days but less peaky.

Price dispersion on selected routes+operators, -10 days adv. Purchase, 2019 - 1_Spring



Price dispersion on selected routes+operators, -1 days adv. Purchase, 2019 - 1_Spring



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Comparisons

Price dispersion (fast & HS connections)

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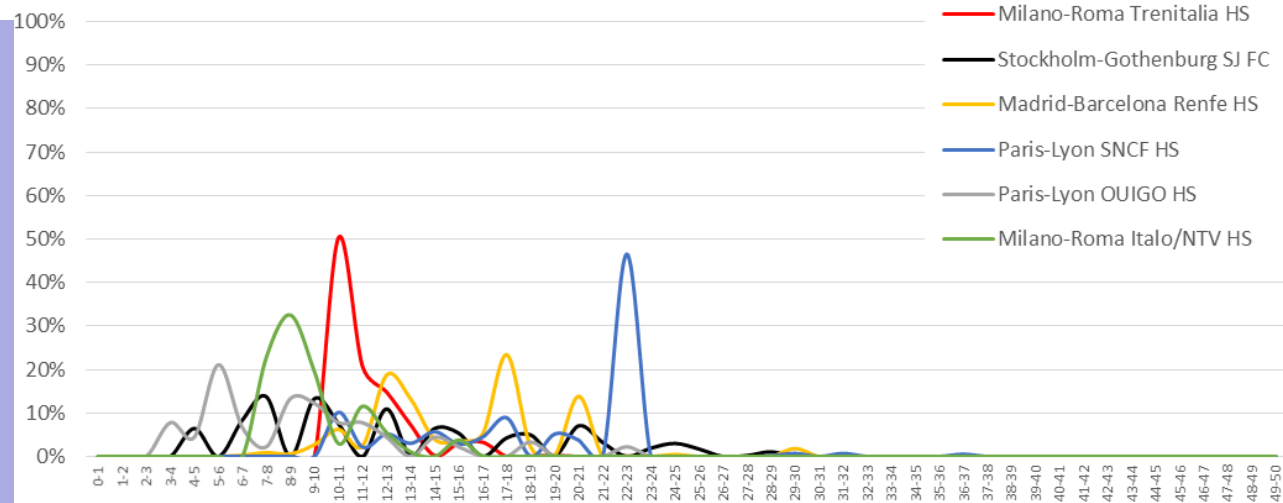
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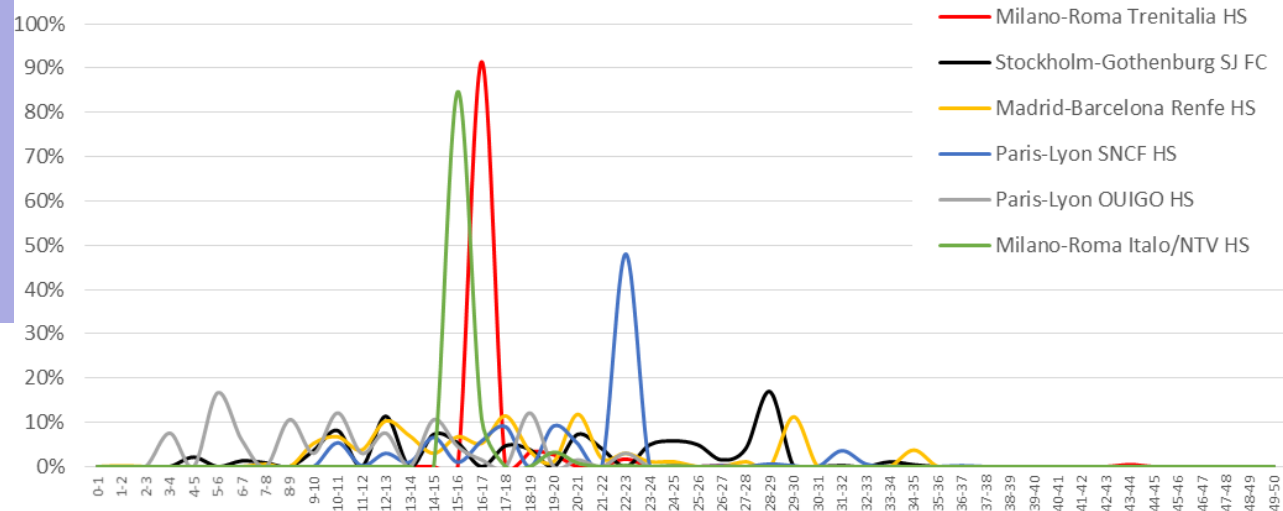
Peak prices are capped and much cheaper than FR/SP ones.

SJ in Sweden is midway: cheap -10 days, expensive -1 days but less peaky.

Price dispersion on selected routes+operators, -10 days adv. Purchase, 2019 - 2_Fall



Price dispersion on selected routes+operators, -1 days adv. Purchase, 2019 - 2_Fall



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Comparisons

Price dispersion (the Czech miracle)

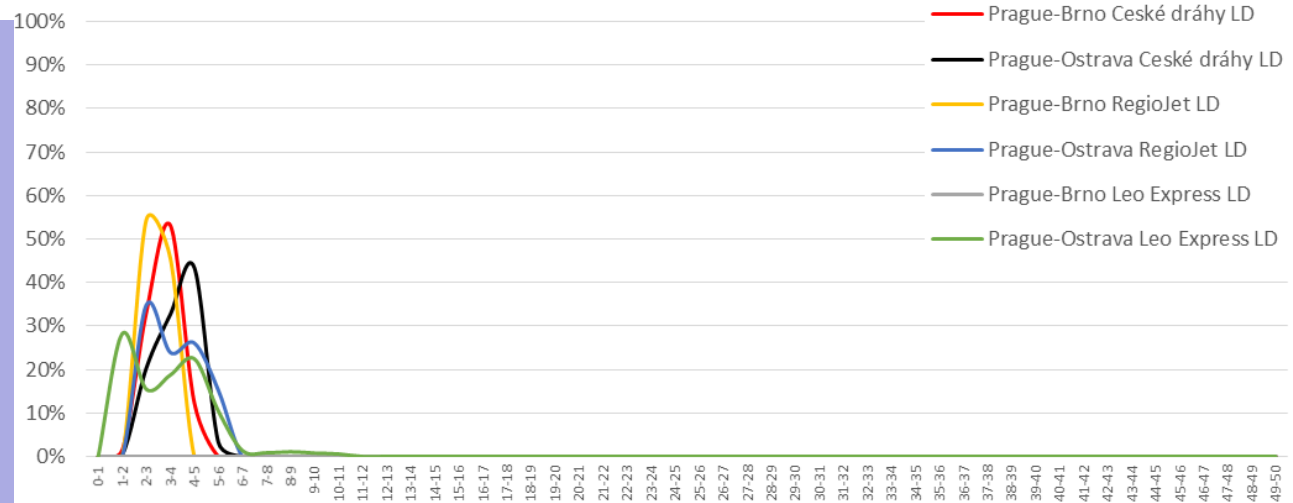
Czech triopoly guarantees at the same time an excellent train **quality**, super-low **prices**, but also a **very very limited price dispersion** (which, at the end of the day, is a stress for the users).

They must be **extremely efficient to survive!**

Leo Express is the only one pricing above 6€cent/km (but very seldom).

CD is more expensive (but probably also emptier)






Price dispersion on selected routes+operators, -10 days adv. Purchase, 2019 - 2_Fall



Price dispersion on selected routes+operators, -1 days adv. Purchase, 2019 - 2_Fall



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The effect of competition on **average prices** is **not** particularly evident.

Competition may matter, but also...

1. Capacity (line and services)

→ Sold-out connections (actually **load factor**, but it is usually *unobservable*)

2. Cross-characteristics of modes

→ how faster is train vs. coaches and planes

Findings and conclusions

Keen companies adopt **very different price strategies (level + dispersion + capacity + quality)** according to situations, e.g. Flixbus.

But **price discrimination can also be arduous** even for smarter companies if **competitors are lazy** (e.g. Flixbus on Bratislava-Kosice vs. ZS fixed low prices).

Monopolists are not necessarily more expensive in terms of average price, but they can **discriminate prices** with the amplest freedom → **max prices during peaks are extremely high** and in general price discrimination guarantees the highest revenues.

Monopolists can also **limit the capacity of services to raise peak prices**, even if apparently the average price is “low”.

All routes are different, but **competition may rise peak prices, unless capacity is really large and companies are not able to constrain it**. To the contrary, the presence of **regulated services, even if slower, may contribute to reduce the highest prices without rising the lowest** (reduces the dispersion). The same is done by buses, if 1) they are competitive in terms of time 2) are sufficiently frequent to become relevant.

What about the future?

SPAIN: Renfe will not be anymore able to price such high prices at peaks, as capacity will be 40-50% more than 2019. Loss of margins, at the advantage of users (I foresee in the short term the lowest HS prices in EU).

But we cannot expect the “route innovation” observed in Italy, Czech Republic or Germany: it is not an open access and capacity allocation is fixed

FRANCE: nothing radical, SNCF has already adapted the market before the entry of Trenitalia/Thello, thanks to the OUIGO product. Moreover, Trenitalia is going to be marginal. So just a bit more choice for the French especially at peaks and a bit less revenues for SNCF. But France is open access... maybe Trenitalia will *invent* new connections.

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Thank you for your attention!!!

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Beria P., Pařil V., Kvasnička M., Tolentino S., Lunkar V. (2021). *The seeds of competition in long-distance rail transport. Comparing the early open-access countries*. European Transport Conference 2021.