OECD Competition Open Day

Agency Perspective on Competition in the Digital Age

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Ladies and Gentlemen,

Good morning.

It is a great pleasure to take part in what is the second edition of the OECD Competition Open Day. If there is a second edition, it means the first edition was a success. So congratulations to the OECD for the successful initiative.

This illustrates the role that the OECD plays in providing a hub for sharing knowledge in cutting-edge competition matters.

I will give you an agency's perspective on competition and digitalization. I will not address every concern, but instead focus on the power of algorithms, the power of platforms, consumer biases and access to data.

We are currently in the midst of a debate on whether more regulation is needed in the age of digitalization.

Citizens have many questions on this topic. Questions still unanswered for the most part.

About the privacy of their data.

About the consequences of the nudging they are submitted to.

About the impact on democracies.

And this is just to name a few.

They may not have a whole lot of questions specifically on digitalization and competition. But as enforcers and experts in this field, we know that there are quite a few to be answered.

The power of algorithms

So let us first look at the power of algorithms.

Today, when you are buying a product online, there is typically a price transparency that may benefit consumers and competitors, although not necessarily both at the same time.

Consumers may benefit in that they can easily keep track of and compare prices.

But there are, more likely than not, algorithms in the background monitoring a product's price. This means online markets may be more transparent than ever for competitors. And it is how a firm uses that transparency that matters to enforcers.

An even more serious risk may be posed by pricing algorithms, as opposed to purely monitoring algorithms.

Pricing algorithms allow firms to set prices automatically. They may do so using very simple static rules, often seen in online marketplaces.

One such rule is *price matching*: if a competitor decreases its price, you as a firm simply match it. This matching rule alone may foster collusion. Because the pricing algorithm is so simple, it is easy to figure out what pricing strategy it follows. Therefore, the commitment to a simple matching strategy may reduce rivals' incentives to undercut prices.

These pricing algorithms are often explicitly designed to track and avoid price wars. When a price war is detected, the pricing rule automatically changes so as to avoid losses. We can see this in the algorithms made available for sellers in several marketplaces.

Developers of pricing algorithms advise clients against price wars. They state that "*in a war, everyone loses*". They pitch a profit optimization for all.

The very basics of anticompetitive behavior can be found in online forum posts. This is where we hear sellers calling aggressive competitors as "*novice sellers*" that need to be taught that "engaging in *penny wars* benefits no one but the consumer". This is where you can find sellers telling their rivals to "*match the lowest person's price rather than attempting to undercut them*".

These open calls for collusion are indeed rather frequent.

Algorithms and competition authorities

But even without an explicit collusion case, and to the extent to which these simple algorithms are applied, we fear that this could be pointing to a future of rampant tacit collusion.

What is more, we still need to understand the full impact of self-learning algorithms. Academics have shown they may reach a collusive outcome through interaction with similar algorithms.

So far, we found no evidence of their widespread use. However, we believe that firms must be responsible for the algorithms they use.

This raises several important questions for competition enforcers:

- Should we focus our resources on complex algorithms and test them in-house with data? Is this feasible? Would we be falling for the temptation of regulating algorithms?
- Or should we focus on traditional explicit collusion cases? Those that merely have an added digital twist, like the Topkins and Trod poster cases investigated in the US and in the UK?

Whatever the choice, we surely need to understand the risks of algorithmic collusion.

For example, hub-and-spoke schemes in the digital environment have been on our radar for a few years now.

And enforcers' attention has been increasing.

Hub-and-spoke schemes can be an easily implemented threat when competitors use pricing algorithms from a common developer. This is especially true in highly concentrated sectors, where developers reveal their client list and thrive on promises of greater margins.

How do competition authorities assess such threats?

Because these are trends that keep evolving, we need to ask firms on a regular basis what they are using in terms of algorithms. The European Commission did that in its 2017 e-commerce sector inquiry. The Portuguese Competition Authority also did so on its Digital Issues Paper, last year.

Let me tell you what we found:

We found that the use of monitoring algorithms is widespread. They are used by 65 to 70% of all online retailers that track their competitors' prices. And we also found that - to a lesser extent - simple pricing algorithms are already used by some firms.

But we need to know more. We must know the following:

- Who are the algorithm developers? What do they advertise as pricing benefits?
- Who are their clients? Are these clients in the same market?
- What kind of algorithms are being used?
- In what sectors are algorithms more common?
- What are firms planning for the future?

The power of platforms

There is another type of algorithm which is calling our attention.

I am thinking about ranking and recommendation algorithms that divert consumers from some products to others. This can introduce bottlenecks in the market that may result in foreclosure.

By the way, this risk is no longer new to us. A number of antitrust cases have been opened and some have even seen a decision.

The Google Shopping decision shows how algorithms can be used to harm competition. In another investigation announced more recently, the European Commission is looking at whether Amazon favored its private label brands in its search results.

And this is where consumer biases kick in.

Our behavior is anchored in biases, conscious or not, that shape how we choose products.

Just think how each of us carries an online search.

Content is brought to us on a daily basis in a manner that is biased toward popularity. Think about bestseller lists, or search engine results, or trending videos. And we ourselves have a tendency to stick to default options.

We also know that as users, we privilege what shows first on a list.

We wait no more than a few seconds.

We make few or no extra clicks. Our patience –our attention span- is rather short on the internet.

Let us go back to some of these aspects. A special issue of Eurobarometer revealed that the order of search engine results does matter. The majority (61%) of EU consumers confirmed precisely that. And this can be highly consequential.

This means a product that is worse in terms of price or quality may still outcompete others in the market, just because of salience to consumers[1].

When firms set default options or configurations in apps and websites, they have the power to shape the market and how competition takes place. And platforms may implement search, ranking or recommendation algorithms so as to exploit consumer biases to their advantage.

User interfaces may be designed so as to drive consumers to make some choices rather than others or, in other words, to sludge consumers.

Yes, sludge as opposed to nudge.

[1] As described by psychologists Taylor and Thompson (1982), "salience refers to the phenomenon that when one's attention is differentially directed to one portion on the environment rather than to others, the information contained in that portion will receive disproportionate weighing in subsequent judgments". In other words, features that foster the persuasiveness of how products are displayed to consumers.

Nudge is a term used by Nobel Prize winner Richard Thaler and co-author Cass Sunstein. It means influencing behavior in a person's best interest. Sludge, on the other hand, as put also by Richard Thaler himself, "*just mucks things up and makes wise decision-making […] more difficult*".

This online sludge, or "dark patterns", manipulates product salience via color, via contrast, through the size or the position of text and buttons, or through the number of steps to do something.

Sludge is not an exception to the rule. Specialized research has found them to be highly prevalent.

The taxonomy of dark patterns is vast. Through "captive audience", "attention grabbers" or "disguised adds", dark patterns mislead and deceive users, tricking them into giving up vast amounts of personal data, inducing them into signing up for recurring subscriptions or making unwanted purchases.

Just think for example, how difficult it is to exercise privacy-friendly options. There are websites where we honestly sometimes do not understand if we are opting for more or opting for less privacy. Or think about how effortless it is to register an account and login to a platform. On the contrary, we have all experienced how cumbersome it may be to delete the same account. It is a whole different journey.

We know now that the volume and diversity of data that platforms gather enables them to run large experiments on the efficacy of every feature of the platform, through what is called A/B testing. This is something that allows platforms to optimize the exploitation of consumer biases.

So, but is this really competition-related or more of a consumer protection topic? Well, when this is carried out by a dominant firm in a gatekeeper position, as part of a strategy of leveraging and self-preferencing, then we have a competition issue.

Consumer Biases and the Financial Sector

This brings me to a related topic, also covered in the agenda for today – data access in the banking sector.

In this sector, like in other sectors, digitalization is shaping consumer preferences and creating opportunities for competition. Consumers, and the economy, no doubt stand to gain from FinTech innovation.

However, for this to be so, unjustified barriers to entry need to be removed. The financial sector is heavily regulated, as you know, and for many good reasons. It may even feel that it is barricaded by regulation. The European legislator has rightly identified this and created a rulebook that alleviates some of the unnecessary barriers.

This rulebook is also known as the second payments directive, or PSD II. It is a rulebook for data access in banking services. In this regard, the UK took the lead with the Open Banking initiative, with benefits for the financial ecosystem as a whole, including consumers.

For FinTechs to compete, they must achieve interoperability with incumbents. They must achieve compatibility of systems. But we are not there yet in several countries.

And a number of competition authorities, including from OECD countries like Spain, the Netherlands and Portugal, have raised the flag to the risk of foreclosure by incumbent banks.

Also here, the exploitation of consumer behavioral biases may be instrumental in reducing competition. For example, the introduction of hurdles for client consent to data access. Additional authentication steps may chill incentives for using new products and services.

So, if an incumbent bank sets up a complicated interface for data sharing where the client has to go through at least three steps for data consent, then the FinTech newcomer will almost surely never see a client. Competition enforcers are attentive here as well.

In a conference that took place in Portugal last Fall[2], a large platform representative mentioned that 3 is indeed the magical number in online services. If a consumer has to wait more than 3 seconds to access a service online, he is going to go somewhere else.

That means that, rather than competition being a click away, it is exclusion that is a click away.

But more on this will certainly be said later today.

Competition and Regulation

This brings me to the last part of my message.

Access to data is a key issue, not only in banking, but in the wider digital sphere.

Data-driven ecosystems have revived the debate about the balance between competition and regulation.

In 2019, this debate benefited from several influential reports: the report prepared by Jacques Crémer – whom you will listen to today - and his co-authors, the Stigler Report and the Furman Report, among others.

These reports have differences in terms of the solutions they put forward. But they all highlight that, in order to tackle these challenges, we need speedier enforcement, i.e. quicker measures to restore competition. And that regulation may be needed to ensure data access and interoperability.

As we stand in the first quarter of 2020, the debate is now focused on the details of how regulation will be shaped and implemented. This requires an in-depth discussion, but also a speedy one. As Commissioner Vestager put it last November "*there is a risk that we will regulate for yesterday and then it is worth nothing*"[3].

And even with regulation, this will not be the end of the road. Open Banking is a good example of that. As mentioned, regulation of data access in the banking sector is now a reality, but many implementation issues still stand.

So, I am coming close to the end and will say that in general we agree that digitalization brings fantastic opportunities, but also risks to competition.

If algorithms help companies fix prices, if powerful platforms block entrants, if consumer biases are exploited to the extent that the success of newcomers is limited, then we will fall short of achieving the full potential of digitalization.

We need to work together in order to avoid falling short of this. This is an overarching challenge, in which we all – enforcers, regulators, academia, policy-makers in general - have been working together and building on each other's work.

Building on each other's work is how we have been making progress and how we will succeed in delivering society what it truly wants from digitalization.

So, to sum up where we stand.

Most people will agree that consumers want confidence and trust to be restored.

Most people will also agree that there currently is no over-enforcement in digital ecosystems.

And finally most people will agree that no ecosystem is efficient without competition.

So with that in mind, I wish you a great discussion throughout the day.

Thank you very much.

[2]APDC Conference, "O Futuro do Sector Financeiro", October 2, 2019. Video accessed at http://www.apdc.pt/iniciativas/agenda-apdc/-o-futuro-do-sector-financeiro--4#

[3] Web Summit Lisbon, November 7, 2019, video accessed at https://www.youtube.com/watch?v=UCr1mJN9Udg