

# ***How to achieve a Level Playing Field in the Internet Value Chain: An Economic Analysis***

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There is currently a sweeping debate in the EU about the need of a Level Playing Field (LPF) between telco operators and other players in the Internet, especially Over-the-Top service suppliers (OTTs).

OTTs are agents that offer telecommunication services (such as telephony, SMSs or TV) over a basic data or Internet connection. Examples of widely known OTTs are Facebook's WhatsApp, Microsoft's Skype or Netflix.

It is clear that, in several cases, OTTs compete head-to-head with telco operators in such services, and that as a consequence these operators are losing or may lose a traditional revenue stream which has given them sustainability during past history.

Telco operators complain about OTTs not having to comply with the strict and extensive regulation imposed by the EU, in issues such as user rights, antitrust, security, Net Neutrality, universal service or access obligations at regulated prices. This, according to them, generates an uneven playing field with their new rivals, which hinder their possibility to compete. Therefore, understandably, they are asking politicians to level

the regulatory playing field between both kinds of agents.

At first sight, there are two basic ways to achieve this fair demand: 1) remove regulation from the telco sector, so that both OTTs and telco operators are unregulated, or 2) regulate OTTs in the same way that telco services are.

In this Brief we propose to analyze the above question from an economic point of view, by applying the theory of value to the Internet Value Chain.

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## **Value allocation in the unregulated value chain**

There is currently consensus among economists that the value of a good or service is subjective, and varies among individuals. Goods only have

value if they are able to satisfy the needs of an individual. In consequence, the source of value is always the end users, and, in principle, only those goods that can directly satisfy the needs of individual (final goods) may have any value.

However, production of final goods always requires the use of inputs, which are combined during the production process. These inputs or goods of first order are complementary among them, in the sense that all of them are required to produce the final good. Of course, goods of first order may require productive processes involving second order goods, and so on.

As higher order goods are required to produce the final good, the value of this final good induces value on those inputs upstream. In other words, the goods of higher order have also value, even if they cannot directly satisfy individual needs, because they are necessary to produce the final good, which will in turn satisfy the need.

In sum, all the resources in the value chain have a value, induced by the value of the final good. The process of valuation recurs in the same way for upstream or higher order resources.

How is the value of final goods split among the different activities in the value chain? The starting point to understand this is the law of costs, which establishes that the value of the final good equals the sum of the values of the inputs used to produce it.

Given the value of the final good, in an un-intervened market, the value of each activity in the value chain will be determined by its relative scarcity (i.e., the available amount of the good / production capacity) and the alternative uses for

it. Economic theory cannot anticipate the concrete shares in which the value will be distributed among the activities involved in its production.

Before going on, let us turn for a moment to the relationship between value and price. Prices reflect the value of goods, but they do not coincide with the value of goods. The only thing that can be said is that, in an un-intervened market, the value of a good for an individual will be higher than the price paid for it (otherwise, he would not buy the good).

It is out of the scope of this note to explain how prices are formed from the value of goods. In any case, if the resulting price of the good does not allow for the recovery of the prices paid for the required resources, then the production of the good is not sustainable and, in an un-intervened market, it will be discontinued sooner or later.

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With this in mind, we can turn back to the value allocation for the activities in the unregulated value chain. If the price for any of the involved activities did not allow for the recovery of the invested resources, then this activity would disappear and the whole value chain would not be sustainable. Therefore, the final allocation will be

such that it allows for the sustainability of all required activities.

Because of that, in the un-intervened market, the different business models implied in each activity do not cause special concerns. The split of value among activities will be carried out by entrepreneurs through a trial and error process, in such a way that all required activities will be sustainable regardless the business model used, even if some of these models will likely require changes during the process.

The extra value generated by the final good over the “sustainable minimum” will tend to accrue to the bottleneck in the value chain. In an un-regulated market, the lifespan of bottlenecks tend to be short, because the extraordinary profitability acts as signal for entrepreneurs to move resources to the bottleneck activity, so that this bottleneck (and its extra profitability) disappears just to be substituted for another one.

### **Value allocation in the partially regulated value chain**

If one of the activities in the value chain is regulated (for example, with maximum prices), then it is very likely that this activity will not be able to accrue the value that it deserves according to the market. In this case, the value of the activity does not directly depend on the final good value, but on the regulated price.

This situation has several consequences:

1. *A bigger share of the final value flows to unregulated activities, than otherwise.*

As the final good valuation has not changed, it is obvious that, according to the law of costs, the loss of value in the regulated input will be acquired by other of the inputs, very likely the bottleneck at that moment, as reasoned above.

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2. *Productive factors required to produce the regulated activity lose value.*

As the value of goods of higher order depends on the value of lower order goods, the loss of value of the regulated activity will induce a similar loss across the inputs it requires.

3. *The production of the regulated good may become unsustainable,*

As a consequence of 2 above, some productive factors may find more profitable uses in other activities (not necessarily in the value chain under analysis) and be redirected to these other activities, which are able to pay a higher price for them.

### **Implications for the analysis of LPF across the Internet Value Chain**

The case of the partially regulated value chain is coincident with the lack of LPF in the Internet Value Chain, because, as described at the beginning of this Brief, telco activities are heavily

regulated, while OTTs activities are much less or not at all.

Thus, the effects described above will occur. In summary, the lack of a level playing field has two basic effects:

- Transfer of wealth from regulated to unregulated activities, i.e., from telco operators to OTTs.
- Possible unsustainability of the regulated activities and, in consequence, of the whole value chain

These consequences should be considered when deciding how to approach the LPF between telco operators and OTTs. Recall there are two basic options: 1) de-regulate the telco market; 2) apply the same regulation to OTTs and telcos

Both options will eliminate the first effect, at least across the activities in the value chain.

But only option 1 is able to stop the second effect. In fact, a LPF achieved through regulation for OTTs would suppose a transfer of wealth from the Internet Value chain to other economic sectors. In other words, telco operators would still lose value, but not in a favor of other agents in the Internet sector, but in favor of other completely different and possibly unconnected sectors. OTTs will, of course, lose value as well.

Even more alarming, regulation of OTTs may cause their activity to become unsustainable, even if that does not suppose a transfer of wealth to other activity in the value chain, putting at risk the whole Internet value chain (already at risk due to telco regulation).

Finally, it is very likely that, in view of the different business models of each of the activities in the Internet value chain, a given regulation will affect in completely different and unexpected ways each of them. Thus, this will make more likely that any of the activities becomes unsustainable and, consequently, the whole value chain.

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## Conclusion

The economic analysis of the Internet value chain unambiguously shows:

1. Lack of LPF supposes a transfer of value from telco operators to OTTs
2. A LPF achieved by equalizing regulation of unregulated activities with those already regulated would:
  - a) Stop the transfer of value intra Internet value chain, but likely cause a transfer of value outside its boundaries
  - b) Put at risk the sustainability of the whole Internet value chain
3. A LPF achieved by de-regulating telco operators will stop the transfer of value intra - value chain without risking the sustainability of the Internet value chain.

Even if any LPF Telcos - OTTs would seem fair to telco operators, an increase of regulation on OTTs does not seem to be the best way forward. In fact, a regulated LPF would arguably be an even worse solution than the current unbalance, because it would remove resources from the whole Internet value chain.

On the other side, the lack of LPF puts at risk telco activities, and thus the OTT business. So, this unbalance, while may result profitable for OTTs in the short term, is unsustainable for them too.

The only LPF that seems compatible with telco, OTTs and, in general, society interest is a fully un-regulated value chain. In the words of 1974 Nobel Laureate Friedrich von Hayek, *it is necessary to move from regulations to rules.*

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