

# How Spectrum Policy Could (or Could Not) Achieve a Single Market for Electronic Communications...

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**Abstract:** Is a European spectrum policy a pre-requisite to the single market? Or, conversely, is the single market a pre-requisite to a European spectrum policy? The answer to this question leads to a different choice of regulatory system. Enforcing a European spectrum policy to build a single market should deeply change the institutional design of European Regulation: a transfer of power from the Member States to the Commission will be necessary to create a European Regulator. This choice can theoretically prevent fragmentation of the single market by ensuring a harmonised management of spectrum throughout Europe. Adopting a more liberal point of view will leave the power of structuring the single market to the market forces. However, reaching a single market means consolidation of the sector: either by mergers and acquisitions or by allowing some agreements between operators. This consolidation is anyway on its way. The strategic use of competition policy and a lighter sector-specific regulation can orientate the operators towards the creation of a single market. Once the single market will be mature enough, the operators will undeniably ask for a European-wide band of spectrum to facilitate their undertaking and to stabilize their business model.

**Key words:** Single market, spectrum management, regulation, electronic communication.

Creating a single market for electronic communications in the European Union (EU) is the main challenge of the next decade, especially today in a context of economic crisis. A fully functional internal market for electronic communications could allow EU gross domestic product (GDP) to increase by 110 billion € a year (Ecorys, 2012). However, after nearly 30 years of deregulation, this single market is still on its way, even though the EU has successfully opened national markets to competition (PELKMAN & LUCHETTA, 2013). Many barriers impede its achievement: some opportunities of economies of scale are missing; the retail prices of roaming data-transmission services are still too high; and the amount of frequencies for mobile broadband appears largely insufficient. Consumers and businesses are suffering heavy economic losses. The negative impacts of the situation are already felt heavily: in the absence of a

single broadband wireless market across Europe, user-friendly European wide services are not easily accessible or just not created. As a direct consequence, the creation of a single market is postponed and the business sector is missing tremendous opportunities of European-wide developments. The macroeconomic effect is obvious: the eradication of a lever for growth, innovation and employment.

Network connected devices (personal or professional), smart cities, m-cloud applications and intelligent vehicles will soon be standard all over Europe. All these connected objects should be fully operational outside the home country without excessive costs or lack of coverage. The Internet of things <sup>1</sup>, in a broad sense, requires European-wide high speed wireless broadband systems.

To meet this challenge, the Commission is calling again to reinforce and to adapt the EU regulatory framework for electronic communication networks and services. The spectrum policy is hence of tremendous importance. The strategic planning and harmonisation of the use of radio spectrum can promote the development of cross-border services and foster the emergence of a single market.

Our work questions the emergence and the structure of this single market. The first steps of our analysis highlight the main ideal characteristic of this market and identify the main barriers to its development. We then address two crucial diametrically opposed questions: is a European-wide spectrum policy a pre-requisite to the single market? Or is the single market a pre-requisite to a European spectrum policy? These questions imply different regulatory choices. The former requires a strong central intervention by the EU (European Regulator). The latter leaves more space to the market initiative. From this analysis, we draw some recommendations on how to achieve the single market.

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<sup>1</sup> Increases in world population and wireless services demand in the next few decades are expected to cause a substantial rise in spectrum use. Global mobile data traffic will increase by 26 % annually by 2015 (EC, 2012b). There will be 50 billion intelligent connected devices in 2020 according to the European Commission, or 100 billion, according to THANKI (2012).

## ■ An ideal single market for electronic communications

What is the ideal single market for electronic communications? This should be a great issue at the European level. The shape, the structure and the organization of the single market are not yet known. Defining it precisely is a difficult work, theoretically and politically. Modern regulation appears unable to specify the very details of an ideal market structure. It is about specifying and implementing principles and rules that will lead to an efficient functioning of the market. That is trying to reach some specific characteristic in resonance with the mere principle founding the European Market (freedom to move).

Such a single market should exhibit some specific characteristics:

- no barriers between EU member states to the use of digital and online technologies and services, cross-border online trade, investment in new online services and applications, and in digital infrastructure (Copenhagen Economics, 2010);
- no discrimination between European citizens according to their nationality: this does not imply homogenous pricing. Geographically limited and Europe-wide offers can co-exist;
- the existence of significant pan-European offers with homogenous pricing throughout the EU: for a significant part of the EU, national borders should be irrelevant.

In particular for wireless, a single market implies more consistent license conditions allowing operators to create transnational networks and to ensure high quality of services over them. Spectrum management at the EU level is a key element. Spectrum is intrinsically a scarce resource exhibiting a high social and private value. It requires an efficient if not optimal use throughout Europe: a local efficient use in each Member State does not necessarily induce an efficient use at the European level.

A single EU market will bring benefits compared to the current situation. Firstly, the single market will allow new sources of growth and the creation of new jobs. Neely Kroes recently argued:

"The boost from a competitive single market in telecommunications could be 110 billion Euros a year. Quality communications for business could be worth 800 billion over 15 years. Broadband could create 2 million jobs" (European Commission, 2013a).

Secondly, it will lead to more innovation and to improvements of the European competitiveness. The Commission considers that an efficient and

competitive use of spectrum in the EU would promote the development of innovative technologies and services, to the benefit of consumers and of Europe's overall competitiveness (European Commission, 2010). Thirdly, a single market will lead to the withdrawal of artificial roaming charges. And last, under these favorable conditions, it will trigger the creation of European-wide actors able to compete at the international level.

## ■ Barriers and concerns

Once the main characteristics of the ideal market structure are fixed, the question is how to reach them: what are the concerns and barriers towards this ideal goal? We consider two main barriers and one main concern: fragmented market, lack of economies of scale and missing business opportunities.

### Starting point: a fragmented European Union

The fragmentation of the EU in 28 states raises the problem of network infrastructures and resource usage. Concerning network infrastructures, the various domestic legislations and network infrastructures in Member states limit the possibilities of network sharing. The cost of network infrastructures is very high: sharing them at the European level will allow the operators to reduce their costs. A coordination of the infrastructure sharing at the European level seems suitable. Concerning the wireless resource usage, the fragmentation is also a crucial matter. In 2009, the Directive 2009/140/EC argued:

"National borders are increasingly irrelevant in determining radio spectrum use" (European Commission, 2009a).

Today, it remains a problem. For instance, many Member states do not comply with the deadline imposed by the spectrum policy program: the "digital dividend" is not yet allocated and this is hindering the deployment of 4G networks over the EU. Neelie Kroes has recently recalled:

"This fragmentation isn't about some breach of EU dogma: it has real consequences. To take just one example: spectrum. Countries are not following their obligations to assign spectrum. But even when it is assigned, each does it differently: so it's harder to bid, plan, and offer services across borders" (European Commission, 2013a).

## Lack of economies of scale

The exploitation of EU-wide economies of scale is one of the main drivers of the functioning of the internal market (Ecorys, 2012). A single market will allow larger players to benefit from economies of scale. The current national spectrum allocation systems are regulatory obstacles to their achievement if the level of harmonization at the EU level remains insufficient:

"Fragmentation of the management of access to spectrum rights limits investment and innovation and does not allow operators and equipment manufacturers to realise economies of scale, thereby hindering the developments of an internal market for electronic communications networks and services using radio spectrum" (European Commission, 2009a, Recital 33).

Harmonizing spectrum policies over the EU is necessary. Article 8a of the amended Framework Directive 2009/140/EC has imposed cooperation between national regulatory bodies and the Commission for the strategic planning, the coordination and the harmonisation of the use of radio spectrum. Given the heterogeneous procedures, timelines and conditions between the Member states, economies of scale are restricted to national markets. The current spectrum management seems inappropriate to promote the rapid development of new mobile technologies and services, especially at the pan-European level. An overview of the 4G market illustrates this point: whereas 90% of USA citizens have 4G, only 25% of EU citizens are able to access it <sup>2</sup> (European Commission, 2013e). Moreover,

"Only 5 of 28 Member States have assigned all 100% of the 1025 MHz of EU harmonised spectrum for mobile broadband due to be assigned by end 2012, and only 12 Member States have released the 800 MHz band to operators, the band most critical for 4G LTE and expanding broadband coverage into rural area" (European Commission, 2013d).

## Missing business opportunities

As a consequence of market fragmentation and lack of economies of scale, some business opportunities are lost at EU-wide level in terms of new

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<sup>2</sup> Three EU Member States have no 4G at all (Cyprus, Ireland, and Malta) whereas only three have an advanced roll-out of 4G (Germany, Estonia and Sweden). Moreover there is virtually no 4G coverage in rural areas across the EU and barely 5% of 4G connections and subscriptions in Europe globally (European Commission, 2013e).

[http://ec.europa.eu/ireland/press\\_office/news\\_of\\_the\\_day/ireland-one-of-three-eu-states-without-4g\\_en.htm](http://ec.europa.eu/ireland/press_office/news_of_the_day/ireland-one-of-three-eu-states-without-4g_en.htm)

services and expansion of the existing ones. Unfortunately, the negative effects go further. The current state of the market is simply blocking or at best postponing the emergence of pan-European innovations, which in return hinders the potential for growth and employment. For instance, it weakens the market for EU-wide trip-related services like connected cars. This issue is therefore of great importance. According to Cisco (2012), there will be over 10 billion mobile-connected devices in 2017, including machine-to-machine (M2M) modules.

## ■ **Spectrum policy reform versus a single market for electronic communications**

A coordinated and strategic spectrum policy at EU level is considered as one of the key actions towards a digital single market. In this sense, the spectrum policy appears as a pre-condition to achieve the single market.

However, in another sense, the single market may be a pre-condition to allocate pan-European spectrum bands and to generate harmonised and timely spectrum allocation policies. Indeed, a single market for telecoms implies strong European mobile industry and hence the existence of strong pan-European operators. Lighter regulatory and competition rules may lead to the emergence of strong firms at the European level able to compete with non European giants. To foster their economic efficiency, these pan-European operators will surely ask for a pan-European spectrum allocation leading to a harmonized spectrum policy.

### **Spectrum policy as a pre-condition to achieve the single market**

The Commission has identified spectrum management and spectrum sharing as an essential part of the Digital Single Market. The availability of the electromagnetic spectrum for wireless broadband is an essential prerequisite. The EU has recently taken actions to enforce an appropriate spectrum policy.

In the Directive 2009/140/EC, the Commission calls to reform the framework in order to complete the internal market for electronic communication. Recital 3 of the Directive specifies:

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"The EU regulatory framework for electronic communications networks and services should therefore be reformed in order to complete the internal market for electronic communication".

The Directive adds:

"The reform also includes the definition of an efficient and coordinated spectrum management strategy in order to achieve a single European information space [...]".

In this sense, the Commission amended the Decision 2002/622/EC to establish a Radio Spectrum Policy Group (European Commission, 2009b).

In this Single Market Act I (European Commission, 2011), the Commission recommended the harmonisation of the use of radio-electric spectrum in Europe as a complementary tool to achieve a truly integrated European market. The European Commission proposed a decision establishing a multiannual radio spectrum policy program (RSP) and expected that the new program "promotes competition and contributes to laying the foundation for a genuine single digital market" (European Commission, 2012a). Moreover, in 2012, the Commission proposed a second set of actions in the Single Market Act II. It required three actions to move towards the digital single market (European Commission, 2012c). These actions are the following (European Commission, 2012c): (a) improving availability of high speed communication infrastructures for citizens and businesses, (b) reducing the cost and increasing efficiency in the deployment of high speed communication infrastructure, and (c) adopting common rules enabling operators to fully exploit cost-reduction potential of broadband deployment.

The multiannual RSP establishes the policy orientations of the Decision 243/2012/EU (European Commission, 2012a). The main objectives of this program are an efficient management and use of the spectrum, a good level of competition in services, a sufficient amount of frequency bands for wireless broadband and no fragmentation. Moreover, the Commission has also promoted the shared use of radio spectrum resources in the EU (European Commission, 2012b). A shared use of spectrum helps to reach RSP objectives since: it improves spectrum use and makes more frequency bands available to wireless broadband; it contributes to reduce access barriers for new users fostering a better level of competition and limiting fragmentation. Recently, the European Commission (2013b) has again called for the harmonisation of spectrum inputs in its new regulatory proposals of a single market for electronic communications.

These various actions of the Commission show the importance of spectrum harmonization for achieving a single market. However, if Member States refuse to comply with the recommendations stated by the Commission, then the single market will not emerge. In this case, the logic may reverse: the single market may become a pre-condition to harmonise spectrum policy.

### **The single market as a pre-condition to harmonize spectrum policies**

The underlying idea is as follows: if we give more flexibility to operators to merge or cooperate to form pan-European operators, then they will ask for pan-European spectrum allocations in order to strengthen and secure their business models. In return, this will enforce the harmonization of spectrum availability, the timing of assignment and the license duration in the EU. The single market can therefore help to implement a better use of spectrum.

A single market requires two main elements: the existence of actors (or group of actors) holding a Europe-wide network and a European-wide wholesale market. In this context, spectrum harmonization may help to create economies of scale for network operators and also for producers of handsets and peripheral equipment. However, to obtain this result, the single market should have reached a certain level of maturity. As LEBOURGES (2013) said:

"Strengthening of EU industry must precede any steps towards EU spectrum allocation. [...] It is not harmonized spectrum that will produce a strong industry, it is a strong industry that will lead to harmonized spectrum".

Three kinds of markets may emerge:

- *Market 1*: a market without new entrants. It will be created through mergers and acquisitions or agreements between mobile network operators (MNOs). Consolidation or agreements between operators is a prerequisite to this market.
- *Market 2*: the market with new entrants at the services level. The new entrants could either be non-European (like Apple, NTT-DoCommo, China Mobile or Google) or European (Nokia). They will probably enter with MVNO-like<sup>3</sup> models at the European-level.

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<sup>3</sup> MVNO stands for Mobile Virtual Network Operator.



- *Market 3*: the market with new entrants at the networks level. This will arise through the allocation of pan-European spectrum bands by MNOs.

Each of this market type is achievable through different modes of regulation.

Concerning market 1, the Commission has recently recognized that:

"It is expected that the medium term effects of the proposed legislation will be increased freedom and opportunities for market participants, and a trend towards greater consolidation of the sector" (European Commission, 2013c).

One concern is how to allow the creation of European operators or group of operators able to compete with international players in the near future. The regulatory framework should be changed to facilitate the creation of pan-European operators or group of cooperating operators.

This may go beyond the regulation of electronic communications and may require some actions on competition law. Merger control can be used strategically to enforce commitments related to the single market (like for instance the creation of a pan-European wholesale offer). The recent approval of the acquisition of Austrian mobile phone operator Orange by H3G provides a good example of such commitments. The Commission authorized the acquisition "conditional upon the implementation of a commitments package that will facilitate the entry of new players into the Austrian mobile telecommunications market"<sup>4</sup>. The commitments proposed by H3G are: divesting radio spectrum and additional rights to an interested new entrant in the market where the merger has occurred; giving to the potential new MNO the right to acquire spectrum from the operator resulting from the merger and additional spectrum at the next planned auctions; providing wholesale access commitments to the network of the MNO. These commitments should be implemented at the Member State level (Austria) but they could have been extended to include single markets elements. For instance, the Commission could have imposed to H3G to offer access to its network to any MNOs willing to create a pan-European service including Austria.

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<sup>4</sup> For more information see: "Mergers: Commission clears acquisition of Austrian mobile phone operator Orange by H3G, subject to conditions".  
[http://europa.eu/rapid/press-release\\_IP-12-1361\\_en.htm](http://europa.eu/rapid/press-release_IP-12-1361_en.htm)

Agreements between MNOs may fall under Article 101 of the Treaty of Functioning of the European Union prohibiting cartels and other agreements. Article 101.3 states that the rule is inapplicable to agreement "which contributes to improving the production or distribution of goods or to promoting technical or economic progress, while allowing consumers a fair share of the resulting benefit". Agreements between MNOs that will create a pan-European wholesale market or eventually a reciprocal share access to networks may be eligible for this exemption. However, this exemption is granted as a result of a legal decision. Block exemption regulations<sup>5</sup> can help the EU in its endeavour. Legally, it is an exemption granted to a large firm or group of firms exempting them from some obligations under competition law. Exemption regulation can be used to foster pan-European agreements of cooperation between MNOs in the context of pan-European services. The exemption regulation will have the advantage of ensuring legal security and stability of the agreements: it will provide a framework and specify clearly the criteria of eligibility of the agreements.

Market 2 should imply the possibility to buy space in MNOs networks throughout Europe to propose new and innovative services. In this context, the market will require the existence of a European wholesale offer. The regulatory conditions of Market 1 can apply to market 2, especially those pertaining to the wholesale market.

The structure of Market 3 requires a spectrum harmonization driven by the industry, new spectrum allocations or spectrum leasing by MNOs. The UE should find a way to provide actors with the ability to operate at a pan-European level with their own networks. Such operators could use a combination of the following modes of radio spectrum access:

- a designated frequency band (for instance part of an extended digital dividend or release of other frequencies either public or private) resulting from the extensive re-farming which is already being considered in some member states;
- white spaces: cognitive radio technologies can play a major role through the use of white holes and unlicensed frequencies;
- spectrum sharing.

Dedicating a frequency band can be hard to achieve at the European level since it requires a strong harmonization between Member States and

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<sup>5</sup> See for instance: Commission Regulation (EU) no. 330/2010 of 20 April 2010 on the application of Article 101(3) of the Treaty on the Functioning of the European Union to categories of vertical agreements and concerted practices.

huge investments for the new entrant. Spectrum sharing and the access to white spaces can be imposed by using the regulatory conditions of Market 1: commitments in the context of merger control, block exemption imposing spectrum sharing with new entrants or white spaces access. Spectrum sharing and white spaces access can stimulate entries in the market at the pan-European level. These entrants can have positive effects: if successful, they may ask for the creation of a dedicated pan-European frequency; they may stimulate the competition at the single market level and induce a reaction from the incumbent players in the market.

## ■ Recommendations

We now turn to the key regulatory actions that will lead to the ideal single market. The path towards a truly single telecoms market requires reconsidering regulation in Europe to overcome the fragmentation of markets. If spectrum policy is seen as a pre-condition to achieve the single telecoms market, European Union will need a pan-European regulator to sustain pan-European network and spectrum market. In this case, the design of current regulatory institutions may be changed. If market forces and dynamics are a prerequisite for spectrum harmonization, a policy of "laissez faire" under control should be considered: the market structure may then be deeply changed.

### Changing the design of regulatory institutions

The main challenges for the future institutional design are: Does the European Commission need more power? How and to whom should the power be delegated?

The current framework paves the way to the internal market and it seems to give powers at the right level of administration. However, it relies heavily on the public and central intervention of the European Union together with Member States. In this sense, not much is left to the private initiative. The spectrum policy has fostered the telecom single market but an institutional design problem remains. Indeed, even if spectrum rules are better defined at the European level, their implementations at the national level create discrepancies, fragmentations and postpone the potential benefits of a harmonized spectrum allocation.

Member States sovereignty in the conduct of their spectrum policy poses a problem and renders the design of institutions inconsistent with the ultimate goal of a single market. According to the principle of subsidiarity<sup>6</sup>, the right level of spectrum management is Europe. To overcome this difficult political problem, the current framework imposes more coordination and harmonization between Member States. This has resulted in guidelines, attempts at central planning but inconsistent implementations throughout Europe still remain (as shown with 4G deployments). The Commission can only give directions. However, the creation of a single telecoms regulator is clearly not a priority. The Commission (2013d) has not discussed this option in its last regulatory proposals. Yet, according to Mr. Almunia, "a true pan-EU regulator would be the most effective solution to remove national divergences" (THOMAS & FONTANELLA-KHAN, 2013), even if its creation is politically inconceivable.

FINGER & VARONE (2009) consider three models of regulatory design for network industries:

- The creation of a European regulator: This regulator will be in charge of achieving a truly single market. It will be able to centrally impose the same license duration, timing of auctions and simultaneous roll-out of NGN networks. It will hence ensure economies of scale throughout Europe. This solution is however challenging since it will encounter a strong resistance from the Member states and transfer more power to the European commission. Some touchy questions may arise: Who will receive the revenues from spectrum auctions? The EU or the Member States?
- "Self regulation" by market operators: the regulation of the mobile industry is partly or totally delegated to a consortium of the major European network operators. The consortium will establish common rules between its members at the European level in order to remove obstacles to the single market. It may be a complement to the guidelines of the Commission. This type of regulation will give more responsibility and flexibility to market players. Self regulation already exists in the standardization process of spectrum management, essentially because of the lack of technical knowledge of European institutions. This solution yields more power to the private initiative. However, MNOs possess infrastructures, spectrum and a direct relationship with final users. They are often part of vertically and

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<sup>6</sup> According to the Article 5(3) of the Treaty on the European Union (TEU): "[...] the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level."

horizontally integrated firms. In short, they are already very powerful. Self regulation may in this sense render entry in the market nearly impossible. Even if the solution appears elegant, it should be considered with great care in order to find the checks and balances to the power of MNOs. The self regulation rules proposed by the consortium can for instance be submitted for approval before the Commission or the European Parliament.

- Differentiated spectrum regulations across UE regions: this situation prevails currently and creates fragmentation of the single market.

The Commission (2013d) recognized that it is necessary to "keep institutional change to the minimum necessary to enable the single market". An institutional change would probably postpone the achievement of the single market. Creating a European Regulator or Self Regulation Consortium (with central control) will at best take a decade of discussion and debate and probably another decade to be effective. There is some kind of path dependency in institutional design, especially within the European systems of laws and procedures. Once a path is chosen (after decades of discussion), it is very hard to redesign it: incremental changes are possible but radical (disruptive) changes are nearly impossible.

The EU is trying to find an acceptable in-between. The new regulatory proposals to the achievement of a European single market for electronic communications demands "to empower the Commission to adopt implementing acts to harmonise spectrum availability, the timing of assignments and the duration of rights of use for spectrum" and to "ensure a consultation mechanism enabling the Commission to review draft national measures concerning the assignment and the use of spectrum" (European Commission, 2013b). This second best solution is surely not appropriate for bringing the single market.

### **Changing the current market structure in Europe**

A European single market will be very wide. Today, the European market counts more than 200 operators and 510 millions consumers (European Commission, 2013b). Creating a single market requires the emergence of European-wide operators or group of operators. Consolidation may be needed: one way to quickly cover a wide geographical zone is to buy local operators. Eventually, there will be a risk of duopoly or quasi duopoly with a

competitive fringe (locally focussed MNOs). After a series of approved mergers and acquisitions, the US mobile market is basically a duopoly<sup>7</sup>. Today, the US administration is struggling (Benzoni *et al.*, 2011) to promote competition through unlicensed use of spectrum (PCAST, 2012) in order to increase competitive pressure on the ATT/Verizon duopoly. This is probably not an ideal model for the single market in Europe.

The Commission acknowledged the necessity of a consolidation in the telecom sector with the emergence of pan-European actors able to compete at the international level. The European single market will probably tend to an oligopoly of firms like Vodafone, Orange, T-Mobile and Telefonica with a local competitive fringe of domestic operators. These local domestic operators can also create a consortium of pan-European services through reciprocal agreements.

We have described earlier that merger control and competition laws play a crucial role in the emergence of a single market. To avoid a US-like situation, the acquisitions or agreements with local operators by the Europe-wide MNOs in particular Member States can be limited. Exclusive deals between MNOs can also be forbidden to avoid tacit collusion or geographical sharing of the single market between large MNOs. The regulatory system can enforce a resource-based competition between the largest players who may compete to reach agreements with the best local operators. A trade-off between competition and consolidation/agreements should be found to avoid closed oligopoly or cartels, which may be detrimental to consumers.

Recently, Neelie Kroes said:

"Creating a Single Telecoms Market would allow operators to expand more easily to other European markets and change the way in which consolidation is looked at under applicable EU competition control rules. But creating a single market is the pre-condition for changes in the competition law analysis" (European Commission, 2013d).

A chicken and egg problem arises: mergers between MNOs can create European MNOs and a single market; but merger control needs an existing relevant market (the single market) to be applied (otherwise the merger will be analyzed through its local effects). This may reveal some kind of inconsistency between the goal of the framework (the single market) and

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<sup>7</sup> Four actors operate in the US mobile market (AT&T, Verizon, T-Mobile and Sprint). Two of them (AT&T and Verizon Wireless) continue to grow market share and revenues. In 2013, they were both representing 70% of market shares.

competition law. However, this inconsistency is structural: competition law looks at the existing relevant market in an *ex post* way whereas sector-specific regulation adopts a more prospective *ex ante* point of view. This inconsistency is due to the overlapping domain of competition law and regulation in the electronic communications sector. However, the concern is about consolidation (mergers and acquisitions) and agreements. As for agreements, an exemption regulation can solve the problem. It can eventually be extended to mergers and acquisitions serving the purpose of creating the single market. As for consolidation, the European competitive authorities (Commission and national bodies) can adopt a more prospective point of view when assessing the economic impacts of MNOs mergers or acquisitions: the creation or reinforcement of the single market can justify the approval of a merger when it compensates for negative local effects.

## ■ Conclusion

A European Regulator does not appear to be a necessity. It will involve a long and probably costly political process and may result in a paper tiger. Even if tomorrow, the EU imposes such a regulator and a European spectrum allocation, without the economic will of the market players, the single market has no chance to emerge. Quite logically, the single market will arise only if market players derive some additional benefits from it. Therefore, the EU should focus on a way to make this single market desirable and profitable for all. Surely, it will involve stability of the legal environment. Competition policy is then probably more adapted in this last phase of regulation (LESCOP, 2011).

The emergence of a single market in Europe cannot only be driven by regulatory actions or political will. A single market is not just a symbol of European cohesion. It should be an economic reality for market players: firms and consumers. Another question emerges: is the single market really beneficial for the EU citizen? Are the roots of the single market lying somewhere else? This issue should probably be explored in large detail. Indeed, even if the EU laws ensure a perfect mobility of people, the movements of population are not so impressive except for touristic purpose: in a sense, language and culture remain huge barriers. Understanding the acceptance of Europe by the European citizen and their willingness to commit themselves to a European single market is a key issue: most of the time firms are following the customers.

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