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Regional State Aid Control in Europe – a Legal and Economic Assessment

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This paper provides a legal and economic analysis of the European rules for regional State aid according to Article 107 (1) and (3) TFEU. It summarizes the historical evolution and the trends of regional aid rules and describes the economic rationale behind them. The main principles are discussed with reference to recent academic research, leading cases and the State Aid Modernization initiative ("SAM"). The current rules for the assessment of compatibility as laid down in the General Block Exemption and the Regional Aid Guidelines 2014 are critically reviewed in light of these principles.

Keywords: regional development policy, investment subsidies, European State aid control, competition law & economics

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1. Introduction

Regional aid is aid granted by Member States to promote investment and the creation of jobs in specific areas affected by structural or economic disadvantages, within their territory. It is a form of 'horizontal' or 'multi-sectoral' aid in the sense that it is not directed at specific sectors of the economy. As the award of regional aid may contribute to the economic development of the Union and to one of its main objectives and purposes, namely fostering economic, social and territorial cohesion, Article 107(3) TFEU provides for an exception from the general prohibition of aid established under Article 107(1) TFEU.

Two different kinds of regional aid may be deemed compatible with the internal market in accordance with the two alternative legal bases set forth in the Treaty. On the one hand, Article 107(3)(a) TFEU refers to aid to promote the development of underdeveloped areas and the so-called outermost regions. On the other hand, Article 107(3)(c) TFEU refers to aid to facilitate the development of certain economic activities or areas, where granting the aid does not distort trading conditions to an extent contrary to the common interest.

Based on the EU Courts' case-law on these provisions, the Commission has progressively issued Regional Aid Guidelines ("RAG") and communications to clarify (and codify) the criteria of compatibility of regional aid, including the method of identification by Member States of the 'assisted areas' (areas which are eligible for support). In addition, the General Block Exemption Regulation sets out the conditions under which regional aid measures are considered compatible with the internal market and benefit from an exemption from the usual obligation to notify state aid measures to the Commission prior to implementing them.

This paper provides a legal and economic analysis of the regional aid rules, by focusing on the regional aid policy and legislation and their economic rationales. The next part (Section 2) presents an overview of the regional aid policy of the Commission, including its connection with the EU cohesion objectives, having regard to the rules set out in the Treaties, the historical evolution and the trends of regional aid rules. Based on that background, Section 3 of the paper focuses on the economic rationale of the regional aid rules and illustrates the main principles with reference to some leading cases. The description of the current rules for the assessment of compatibility follows in Section 4, with highlights on the coherency of such rules (or the lack of it) with the aforementioned principles and trends. Finally, in Section 5, we refer to some open issues and provide an outlook on future developments.

2. Regional aid and cohesion policies, purpose and historical background

The origins of the control of regional aid date back to the very foundation of the European Economic Community in 1957. Article 92 of the Treaty of Rome (now Article 107 TFEU) already proclaimed the basic principle of incompatibility of state aid. However, aid to develop seriously underdeveloped regions and aid to improve disadvantaged areas, where this does not conflict with the common interest, were included from the outset among the derogations. These provisions aimed at reducing the disparities between regions within the common market and at preventing a subsidy race between Member States. Almost sixty years after their establishment, they have remained substantially unchanged and still constitute the upper norm foundation of regional aid control.

Besides competition policy, the integration process and the completion of the internal market introduced, as from the 1980s, a new Community policy concerning the development of regions in the common market. The European Single Act and, later on, the Treaty of Maastricht, established the principles of a common cohesion policy. The aim of such policy, as set out today by Article 3(3) TEU, is for the European Union to "promote economic, social and territorial cohesion, and solidarity among Member States". This is referred to as the "equity objective" of State aid policy[1]. This objective is further elaborated under Article 174 TFEU, by which "the Union shall aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions". Among the regions concerned, particular attention is paid to rural areas, areas affected by industrial transition, and regions which suffer from severe and permanent natural or demographic handicaps such as the northernmost regions with very low population density and islands, cross-border and mountain regions". Since Article 175 TFEU requires the European Union to take into account and contribute to the achievement of the objectives set out in Article 174 TFEU in all its policies, including the implementation of the internal market, the application of the rules on regional aid cannot be limited to competition considerations, but should also address cohesion issues.

Accordingly, the Commission has progressively refined and codified its approach, guided by the interpretation of the Treaty rendered by the Courts, to balance competition and cohesion requirements in its control of regional aid.

Regional aid has always represented a large component of the total amount of aid granted by Member States. According to the latest State aid scoreboard,[2] Member States spent between 2007 and 2012 about EUR 75 billion on regional state aid, an amount corresponding to 0.11% of total EU GDP and 18.3% of non-crisis related State aid. Arguably, regional aid has been of pivotal importance to promote social and economic improvements in the most disadvantaged regions of the EU during this period, which overlapped with much of the financial crisis.

[1] See e.g. Guidelines on regional state aid for 2014–2020, [2013] OJ C209/1, para 30.

[2] All the statistical data are available on the website of DG Competition, see: http://ec.europa.eu/competition/state_aid/scoreboard/horizontal_objectives_en.html

2.1. Compatibility of regional aid in assisted areas under the Treaty

Under Article 107(3) TFEU, regional aid "may be considered to be compatible with the internal market". As recognised by the European Courts, this provision grants the Commission a broad discretion[3] in the analysis and evaluation of State aid measures. The exercise of such a discretion implies economic and social assessments, which are to take into account the interests of the Union as a whole, rather than interests at a national level.[4] In practice, the Commission is required to compare the positive effects of the aid against its negative effects, in terms of distortion to trade and competition.[5] The discretion of the Commission is only slightly limited by the perspective of a judicial review, as the Courts, in fact, have found that they must restrain their review to the control of manifest error or abuse of discretion,[6] basically for two reasons. On the one hand, the Commission takes into account in its assessment complex and rapidly evolving circumstances;[7] on the other hand, as is well established in the review of Article 107(3) TFEU, the Courts cannot substitute the complex economic assessments performed by the Commission with their own.[8]

The criteria to identify assisted areas and the aid that can be considered compatible with the common market are set out in Article 107(3)(a) and (c) TFEU, as interpreted by the case law of the Courts as well as in the implementing rules adopted by the Commission.

Article 107(3)(a) TFEU refers to "aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment, and of the regions referred to in Article 349, in view of their structural, economic and social situation".[9] This paragraph concerns only areas where the economic situation is extremely unfavourable in relation to the Union as a whole.[10] The particular underdevelopment of these areas implies greater latitude for Member States in granting aid. However, this "cannot lead to the conclusion that the Commission should take no account of the [Union] interest when applying Article [107](3)(a), and that it must confine itself to verifying the specifically regional impact of the measures involved, without assessing their impact on the relevant market or markets in the Community as a whole. In such cases the Commission is bound not only to verify that the measures are such as to contribute effectively to the economic development of the regions concerned, but also to evaluate the impact of the aid on trade between Member States, and in particular to assess the sectorial repercussions they may have at [Union] level".[11]

The derogation under Article 107(3)(c) TFEU has a wider scope, as it allows for aid to assisted areas that do not satisfy the conditions set out by paragraph (a). In fact, paragraph (c) refers to "aid to

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[3] Case 78/76 *Steinike & Weinlig* [1977] ECR 595, para. 8. See also, in particular, Case 730/79 *Philip Morris* [1980] ECR 2671, para. 24; Case 310/85 *Deufil* [1987] ECR 901, para. 18; Case 301/87 *Bussac* [1990] ECR I-307, para. 15; Case C-225/91 *Matra* [1992] ECR I-3202, para. 24; Case C-39/94 *SFEI* [1996] ECR I-3547, para. 36; Case T-149/95 *Ducros* [1997] II-2031, par. 63; Case C-351/98 *Spain v Commission* [2002] ECR I-8031, para. 74; C-409/00 *Spain v Commission* [2003] ECR I-1487, para. 93; Case C-372/97 *Italy v Commission* [2004] ECR I-3679, para. 83; Case T-211/05 *Italy v Commission* [2009] ECR II-2777, para. 169; Case T- 369/06 *Holland Malt* [2009] ECR II- 3313, para. 92.

[4] *Philip Morris*, para. 24.

[5] *Philip Morris*, paras 24-26; *Italy v Commission* [2004] para. 74.

[6] Case 57/72 *Westzucker* [1973] ECR 321, para. 14.

[7] *Boussac*, para. 15.

[8] Case 56/64 *Consten and Grundig* [1966] ECR 301, page 347.

[9] Article 349 TFEU relates to the outermost regions. The reference to the outermost regions under Article 349 TFUE was added by the Treaty of Lisbon.

[10] Case 248/84 *Germany v Commission* [1987] ECR 4013, para. 19; Case T-380/94 *AIUFASS and AKT* [1996] ECR II-2169, para. 54.

[11] Case C-113/00 *Spain v Commission* [2002] ECR I-7601

facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest". Accordingly, under this provision the Commission has the power to authorise aid intended to further the economic development of areas of a Member State that are disadvantaged in relation to the national average, even if they still perform relatively well compared to the EU average.[12] In principle, this would constitute a safeguard for the wealthiest Member States that they too will be able to grant aid to their less developed regions. However, the provision also implies that special care must be paid to the effects of aid granted under the coverage of Article 107(3)(c) TFEU on trading conditions, which should not be altered to an extent contrary to the common interest, which might be the case if extra investment attracted to these areas would go at the expense of investment in the poorest areas or would harm competition and trade in other respects. This condition requires that a (delicate) balancing between negative and positive effects[13] of the aid is carried out, and that its outcome is positive; second, that the criteria adopted by Member States to identify the assisted areas under Article 107(3)(c) TFEU are coherent with the EU framework of rules.[14]

2.2. The European Commission's regional aid policy

2.2.1. Early developments and first principles of coordination

The Commission took the first steps to a regional aid policy in the 1970s.[15] After proposing, in 1968, that the then six Member States give the Commission advance notice of all significant cases of general regional aid and the adoption of a Communication establishing the principles the Commission intended to apply to regional aid,[16] the Council adopted in 1971 a Resolution, representing the first ever document on the implementation of the regional aid rules under the Treaty of Rome.[17] The Council Resolution set out a single aid intensity ceiling (20% in net subsidy-equivalent),[18] the requirement of transparency of aid (i.e. the aid must be part of an investment and must be measurable as a percentage of that investment)[19] and the recognition of the 'Regional specificity', consisting in an exception to the general rules on State aid, allowing Member States to modulate the aid on the basis of objective criteria regarding the specific features of the regions concerned.[20] These seminal criteria still underlie the modern regulatory framework of regional aid.

Following the accession of Denmark, Ireland and the United Kingdom to the European Community, the Commission extended in 1975[21] the principles of its regional aid policy to all regions and then adopted, in 1978, a new communication[22]. In this communication the Commission set out the common coordination principles that still are at the foundation of its regional aid policy. In particular, the

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[12] *Germany v Commission* [1987] para. 19; *Bussac*, para. 51; Case C-169/95 *Spain v Commission* [1997] ECR I-135, para. 15.
[13] This was the position of the Commission in its XIV Report on Competition Policy [1985] para. 202.
[14] *Philip Morris*, para. 26; *Deufil*, para. 18. See also Case 47/69 *France v Commission* [1970] ECR 487, paras 19-22.
[15] For a comprehensive study of the evolution of regional aid policy until 2004, see Olofsson *L'évolution de la politique des aides à finalité régionale 1956-2004* in *Competition Policy Newsletter* (2005)3, p. 17.
[16] Communication de la Commission au Conseil – Régimes généraux d'aides à finalité régionale [1971] OJ C111/7.
[17] First Resolution of 20 October 1971 of 1971 of the Representatives of the Governments of the Member States, meeting within the council on general systems of regional aid [1971] OJ C111/1.
[18] *Ibid.*, para. 3. The net subsidy-equivalent refers to the amount of aid in cash terms, post taxation.
[19] *Ibid.*, paras 4.
[20] *Ibid.*, paras 5.
[21] Commission communication to the Council, COM(75) 77 of 26 February 1975.
[22] Communication of the Commission on regional aid systems [1979] OJ C31/9.

Commission introduced differentiated aid ceilings (i.e. maximum aid intensities expressed as a percentage of the relevant costs) according to the nature and gravity of the regional problems,[23] aid for the creation of jobs connected with the investment,[24] the financing of the transfer of an establishment to an aided region,[25] and established a definition of initial investment.[26] In the same communication, the Commission also announced it would analyse the issue of accumulation of aid, which was in fact dealt with later on by a communication adopted and published in 1985.[27]

The subsequent enlargement (to Greece, Portugal and Spain) in the 1980s required the Commission to take into account the industrial underdevelopment and the high levels of unemployment of new regions. At the same time, with the adoption of the Single European Act in 1986, Member States delegated part of their sovereign power in the field of economic and social cohesion to the EC institutions and called the Commission to aim at reducing disparities between the levels of development of the various regions and the backwardness of the least favoured regions, throughout the implementation of its policies.[28] Therefore, regional policy was at the same time subject and key to the attainment of the new Community cohesion objectives, with regional aid in particular representing a strong lever in support of cohesion (or, in case of distortive aid, against cohesion).

Accordingly, the Commission adopted a new communication in 1988, explicitly setting out the criteria of application under the current Article 107(3)(a) and (c) TFEU[29] and building upon the (then) recent case-law.[30] The new method made the eligibility of aid subject to quantitative criteria and provided for the Commission to authorise different aid intensities depending on the features of each case, but within the ceilings of aid intensity set in its communication of 1979. In particular, to measure the backwardness of the less developed regions under paragraph (a), the Commission introduced reference to GDP in terms of Purchasing Power Standards (PPS), assessed on a geographical common base (NUTS – standard geographic reference entities used by Eurostat) and compared to the Community average.[31] Along investment aid, the Commission permitted operating aid for particularly disadvantaged regions, namely isolated regions.[32] The Commission also laid down for the first time a method of application under paragraph (c), made of a two-step analysis based on quantitative criteria (using a formula). The first step identified the less developed regions at national level, based on income and unemployment levels, adjusted to take into account the development of the Member State concerned as compared to the Community average. The second step added the assessment of a wide range of national and Community economic and statistical data, to define the eligible regions among those identified under the first step of analysis. [33] The basic idea underlying the new method was that the better the region is rated in comparison to the Community average in terms of GDP, the wider should be its gap when compared to national GDP average to be eligible for State aid.

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[23] *Ibid.*, para 2.
[24] *Ibid.*, para. 3.
[25] *Ibid.*, para. 6.
[26] *Ibid.*, Annex, para. 18.
[27] Commission communication on the cumulation of aids for different purposes [1985] C3/2.
[28] Articles 130A and 130B TEC, now 174 and 175 TFEU.
[29] Commission communication on the method for the application of Article 92(3)(a) and (c) to regional aid [1988] OJ C212/2.
[30] *Germany v Commission* [1987].
[31] *Ibid.*, Chapter I, para. 1.
[32] *Ibid.*, Chapter I, para. 6.
[33] *Ibid.*, Chapter II, paras 1-3.

The Commission slightly updated its communication in 1990,[34] *inter alia* to ensure coherence with the eligibility criteria for assisted areas under the EU Structural Funds (the funds managed by the Commission itself), and again in 1994,[35] to take into account the geographical characteristics of the prospective Member States Sweden and Finland. The latter amendments introduced a population density test to identify additional eligible regions under paragraph (c) and to allow aid to compensate for the high costs of transport to and from remotely located areas.

2.2.2. The first comprehensive reform in 1998: the RAG 2000-2006

Within the context of the discussions for the adoption of the so-called Agenda 2000,[36] the Commission completed in 1998 the first comprehensive and substantial reform of regional aid, with the adoption of guidelines[37] to consolidate and simplify the previous soft law, and of a multi-sector framework for regional aid to large investment projects ("MSF 1998").[38] At the same time, it adopted a Communication to promote an increase in the concentration of aid to the less developed areas and reinforce the consistency between regional aid and cohesion policy (through the award of EU Structural Funds), to ensure that the regions eligible under the Structural Funds could also be covered by a regional State-aid scheme.[39] This is what is usually referred to as the first phase of modernisation of State aid law (and even the first step in the modernisation of EU competition policy overall).

On the one hand, with its 1998 guidelines the Commission reiterated the validity of several rules embodied in the previous communications; on the other hand, it introduced new elements stemming from its practice. For instance, the Commission confirmed that the designation of regions falling within the scope of Article 87(3)(a) EC (now Article 107(3)(a) TFEU) depended on the criterion of a GDP per capita below 75% of the Community average measured in terms of PPS and the correspondence with a common geographical base (NUTS II).[40] More importantly, it introduced several innovations, which have been kept to today.

First, it set out a global coverage ceiling in terms of population eligible for regional aid throughout the Union lower than 50%[41] (42.7%, in the guidelines of 1998),[42] based on the principle that only a truly selective system of regional aid can help stimulate a virtuous circle capable of allowing disadvantaged regions to reduce the gap.[43] Thus, the aided population should remain below 50% of the total population of the Union.

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[34] Commission communication on the method of application of Article 92(3)(c) to regional aid Commission [1990] OJ C163/5 and Commission communication on the method of application of Article 92(3)(a) to regional aid [1990] OJ C163/6.
[35] Commission notice, addressed to the Member States and other interested parties, concerning an amendment to part II of the communication on the method for the application of Article 92(3)(a) and (c) to regional aid [1994] OJ C364/8.
[36] Agenda 2000 – Summary and conclusions of the opinions of Commission concerning the Applications for Membership to the European Union presented by the candidate countries - DOC/97/8. Strasbourg-Brussels: European Commission, 15 July 1997.
[37] Information from the Commission - Guidelines on national regional aid [1998] OJ C74/9.
[38] Information from the Commission - Multisectoral framework on regional aid for large investment projects [1998] OJ C107/7.
[39] Communication from the Commission to the Member States on the links between regional and competition policy: Reinforcing concentration and mutual consistency [1998] OJ C90/3.
[40] Guidelines on regional aid [1998], para. 3.5.
[41] *Ibid.*, para. 3.2.
[42] A Commission decision set the exact coverage, as recalled by para. 3.2. of the Communication on the links between regional and competition policy, cited above.
[43] *Ibid.*, para. 1.

A second novelty that has remained partially unchanged was the method to identify the regions covered by Article 87(3)(c) EC, based on a two-step analysis.[44] First, the Commission fixed a coverage ceiling for these regions, split among the Member States in accordance with an allocation key intended to measure both the position of the regions when compared with the Community average, and their development at national level. Second, the allocation of such regions was based on qualitative criteria that the Member States ought to comply with, while the Commission had a wide margin of discretion, within these limits, to determine the methodology and parameters to be applied for the selection of the eligible regions, and, as a consequence, the list of such regions.

The regions so-demarcated, together with the regions eligible for aid under Article 87(3)(a) EC, composed the so-called regional aid map that Member States had to notify to the Commission at the beginning of the programme period (2000-2006, in that case) along with the methodology used for the selection of the eligible regions.

The Commission merely exercised control of legality in respect of the qualitative criteria. This control was intended to ensure the objectivity and transparency of the methodology and parameters employed, as well as the efficacy of the regional aid, by avoiding too widely dispersed interventions. Furthermore, the regional derogation could only be invoked, in principle, for multisectoral aid schemes open to all companies active in the assisted regions.[45] . This was done to avoid regional aid being used too much as a lever to support certain specific (existing) sectors and firms, rather than as a means to foster regional development at large.

Besides these changes, the Commission decreased the aid intensity ceilings previously applied to the different categories of regions and introduced adjustments depending on the size of the recipient firm,[46] clarified the notions of "initial investment" and "job creation",[47] and widened the eligible expenditures to include intangible assets.[48]

Finally, the 1998 guidelines also revised the rules on accumulation of aid, to allow for accumulation of regional aid granted on the basis of different provisions or schemes and stemming from different legal sources, and aid intended to satisfy different goals (regional aid with other horizontal aid, for instance).[49]

With its MSF 1998, the Commission intended to ensure a uniform assessment of large aid projects on the basis of a given set of parameters that, combined together, would lead to an automatic decrease of the admissible aid intensity, as compared to the maximum aid ceiling admissible for non-large aid projects in the region concerned. Although designed to prevent and balance potential excessive distortions of competition, the assessment criteria revealed unable to reduce the level of aid to large projects and a new Multisectoral Framework superseded the whole system in 2002 ("MSF 2002").[50]

With the MSF 2002, the Commission introduced a reduction of the aid level through the automatic adjustment of the regional aid intensity ceilings on the basis of a scale, composed of three thresholds of

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[44] *Ibid.*, paras 3.8-3.10 and Annex III.
[45] *Ibid.*, para. 2.
[46] *Ibid.*, paras 4.8-4.9.
[47] *Ibid.*, paras. 4.8 and 4.13.
[48] *Ibid.*, paras. 6.
[49] *Ibid.*, paras 4.18-4.21.
[50] Communication from the Commission — Multisectoral framework on regional aid for large investment projects [2002] OJ C70/8, as amended [2003] OJ C263/3.

investment expenditures and related adjustments: (a) up to EUR 50 million (100% of the applicable aid ceiling), (b) between EUR 50 million and EUR 100 million (50% of the applicable aid ceiling) and (c) from EUR 100 million upwards (34% of the applicable aid ceiling). This implied that the larger aid projects (by expenditure) would face lower maximum aid intensities, i.e. would receive proportionately less aid, than smaller projects.

Investment aid to the synthetic fibres sector and the steel industry were prohibited (for fear of creating/maintaining overcapacity in these sectors);[51] the shipbuilding sector remained excluded by the scope of application of the framework (given that there was a specific aid framework for that sector).

As before, Member States could notify regional aid schemes to obtain Commission approval. However, Member States were required to notify all individual projects (whether covered by a scheme or not) where the aid amount proposed was more than a certain threshold (the "notification threshold"), depending on the extent to which the region in question was seen as disadvantaged: the more disadvantaged the region, the higher the notification threshold.[52] To illustrate, in regions where the maximum aid intensity was 40%, the notification threshold would be at EUR 30 million.[53]

Individually notifiable projects were *per se* prohibited in two constellations.[54] The first referred to the market power of the aid beneficiary, which should not account for more than 25% of the products concerned before or after the investment. The second referred to the sectoral repercussions of the regional aid in terms of capacity, to be compared with the growth perspectives of the sector concerned: the capacity created by the project should not exceed 5% of the total volume of production in the relevant market unless the average annual growth of the products concerned over the previous five years was above the average annual growth rate of the EEA's GDP.

Besides these innovations, the MSF 2002 for the first time introduced a system of ex-post monitoring for all investment aid falling under the framework.

2.2.3. The 2005 State aid Action Plan and the RAG 2007-2013

Although the regional aid maps approved under the RAG 1998 were due to expire on 31 December 2006, the Commission had to start immediately redesigning its regional aid policy, due to many factors. First, the 2000 Lisbon strategy launched the objectives of economic growth, employment and social cohesion.[55] In terms of State aid, this meant that aid needed to be reduced in volume and targeted towards the Lisbon strategy objectives, under the principle of "less and better-targeted State aid".[56] Second, the third report on economic and social cohesion of the EU of 2004[57] pointed out, *inter alia*, the economic and social disparities among regions, especially following the accession of 10 new Member States in May 2004, and called for a concentration of regional aid and cohesion funds,

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[51] *Ibid.*, para. 42(b) and 27.
[52] Specifically, the notification threshold was set at the maximum allowable aid that an investment of EUR 100 million could obtain in the region concerned (using the reduction scale).
[53] Using the reduction scale, in a region with a maximum aid intensity of 40%, the notification threshold would be 50 million x 40% + 50 million x 40% x 50% + 0 million x 40% x 34% = EUR 30 million. This approach is still applied today (see Section 4.3).
[54] *Ibid.*, para. 24.
[55] Presidency conclusions of the Lisbon European Council of 23 and 24 March 2000: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/00100-r1.en0.htm
[56] Presidency conclusions of the Barcelona European Council of 15 and 16 March 2002: http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/71025.pdf, p. 7.
[57] http://ec.europa.eu/regional_policy/sources/docoffic/official/reports/cohesion3/cohesion3_en.htm.

conceived as complementary policies, where they are more needed and create the least distortions to competition. Third, the enlargement from 15 to 25 Member States represented a real challenge to the existing system as assisted areas covered by Article 107(3)(a) TFEU, for which the rules offer most possibilities to give aid, would de facto be largely limited to the regions of the new Member States. In other words, most of the existing assisted areas in the "EU-15" risked losing their "a"-status.

All these elements were finally taken into account in the State Aid Action Plan ("SAAP"),[58] by which the Commission launched in 2005 a second phase of modernisation of the State aid framework to achieve the Lisbon strategy objectives. Although the reform of regional aid was not the main measure envisaged by the SAAP, the rules of the new RAG adopted in 2006 for the period 2007-2013[59] ("RAG 2006") were based on the principles enshrined in the reform, including the need for 'less and better-targeted State aid'. This implied a more sophisticated economic approach as regards the compatibility of aid and, in particular, a stronger focus on the incentive effect of aid (i.e. the question whether the aid was indeed necessary to bring about the investment concerned). The new RAG were complemented for the first time by a Regulation providing for the exemption of prior notification for transparent regional aid schemes meeting the criteria of the RAG;[60] this Regulation was eventually superseded in 2008 by the General Block Exemption Regulation[61] ("GBER 2008").

The RAG 2006 applied to every sector of the economy, with some exceptions. They did not apply to the fisheries sector and the coal industry; other sectors, including shipbuilding and transport, were subject to special rules. No regional investment aid might be granted to the synthetic fibres sector; aid to the steel industry was considered incompatible with the common market. Finally, regional aid might be granted to firms in difficulty only in accordance with the related guidelines for rescue and restructuring aid.[62]

The Commission set out the limit of the overall population coverage to 45.5% on an EU-27 basis.[63] This ceiling was established bearing in mind the upcoming accession of Bulgaria and Romania, the territory of which was (and still is[64]) eligible for aid under Article 107(3) (a) in its entirety. The overall population coverage would thus remain below 50% even on a EU-27 basis.

As regards the demarcation of regions, the RAG 2006 designed three separate categories of areas eligible for assistance under Article 107(3)(a) TFEU: (a) the economically underdeveloped regions, (b) the outermost regions and (c) the 'statistical effect' regions, a category intended to grant phasing out arrangements (up to 31 December 2010) to those disadvantaged regions that did not meet the 75%

[58] State Aid Action Plan - Less and better targeted state aid: a roadmap for state aid reform 2005-2009, COM/2005/207 final, http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52005DC0107&from=EN.
[59] Guidelines on national regional aid for 2007-2013 [2006] OJ C54/13.
[60] Commission Regulation (EC) No 1628/2006 of 24 October 2006 on the application of Articles 87 and 88 of the Treaty to national regional investment aid (2006) OJ L302/29. The obligation to notify individual aid projects above a certain amount (the notification threshold) stayed in place.
[61] Commission Regulation (EC) No 800/2008 of 6 August 2008 declaring certain categories of aid compatible with the common market in application of Articles 87 and 88 of the Treaty (2008) OJ L214/3.
[62] RAG 2007, paras 8-9.
[63] *Ibid.*, paras 13 and 14. The coverage was adjusted to around 46.6% due to a so-called "safety net" ensuring that no Member State, in terms of population coverage, lost more than half compared to RAG 1998.
[64] With the exception of the capital region of Bucharest.

requirement due to the statistical effect of enlargement (at EU-25 level) but would still have a GDP per capita below 75% of the EU-15 average.[65]

As far as the derogation under Article 107(3)(c) TFEU is concerned, the two-step process introduced in 1998 was retained (first, determination by the Commission of the maximum population coverage for each Member State and, second, the selection of eligible regions by the Member States on the basis of a well-defined regional policy). As before, Member States could only award aid to regions falling within the type of regions eligible for selection pre-defined by the Commission.[66]

The global percentage of population coverage to be allocated among Member States for aid under Article 107(3)(c) TFEU was obtained by deducting from the overall population coverage ceiling, the automatic allocation for statistical effect regions, the allocation for former Article 107(3)(a) TFEU regions and finally the allocation for low population density regions. The balance was available for distribution among MS under Article 107(3)(c) TFEU using the same allocation key as in the RAG 1998 (i.e., a key weighting the region's gap in terms of GDP per capita both in a national and in a EU context: the better the region's position when compared with the EU average, the higher the gap needed to be in the national context).[67]

Contrary to the aid ceilings for Article 107(3)(c) TFEU regions, the single aid ceilings for the Article 107(3)(a) TFEU regions were split into three categories, depending on the gap between the region's GDP per capita and the EU-25 average (less than 45% of the EU average; between 45 and 60% of the EU average; between 60 and 75% of the EU average). The measurement of the aid intensity was established on the basis of 'gross grant equivalent' (GGE), rather than the net grant equivalent standard applied in the previous RAG.[68]

In addition, the RAG 2006 set out a new typology of aid for newly created enterprises, providing incentives to support start-up businesses and the early stage development of small enterprises in the assisted areas.[69]

As regards large investment projects (i.e. projects with eligible costs exceeding EUR 50 million), the rules of the MSF 2002 were integrated in the RAG 2006, with some clarifications and innovations. First of all, in order to prevent a large investment project from being split into smaller projects to escape the application of the special provisions, large investment projects had to be considered single projects when the initial investment was undertaken in a period of three years by one or more companies and consisted of fixed assets combined in an economically indivisible way.[70] Secondly, where the thresholds previously laid down in paragraph 24 of the MSF 2002 (market share and/or new production capacity) were met, under the new paragraph 68 of the RAG 2006 the Commission had to conduct a detailed investigation, in the form of a formal procedure under Article 108(2) (the so-called "paragraph 68 test"). With such investigation, the Commission had to assess whether (a) aid was necessary to provide

[65] *Ibid.*, paras 15-20.
[66] *Ibid.*, paras 21-23, 30-32.
[67] *Ibid.*, paras 24-29.
[68] *Ibid.*, paras 42-48. The introduction of the GGE was determined by simplification purposes and the case law of the General Court to avoid having to take into account differences in national taxation, which would amount to an indirect form of fiscal harmonisation. See Battista (2005), p. 407.
[69] *Ibid.,* paras 84-91.
[70] *Ibid.*, para. 60.

an incentive effect for the investment and (b) the benefits of the aid outweighed the resulting distortion of competition and effect on trade between Member States.[71]

To increase transparency and predictability, the Commission illustrated in its 2009 Communication on Large Investment Projects ("LIPs")[72] the methodology to assess whether, after balancing its positive and negative effects, large investment projects falling under "paragraph 68" could be approved.

As regards the positive effects of the aid, the Commission set out to evaluate first of all the purpose of the aid, intended as its contribution to the equity (in terms of cohesion) and efficiency (in terms of addressing market failures) objectives. Indicative criteria included the creation of direct and indirect jobs, the improvement in the quality of the job/skills required, potential knowledge spillovers, the coherence of the project with operation programmes co-financed by the EU Structural Funds, in line with the common objectives of regional aid and cohesion policies.[73] The aid needed to be an appropriate measure, i.e. it needed to be among the best policy options (there should not be a clearly better alternative option).[74]

Next, Member States had to prove that the aid contributed to change the behaviour of the beneficiary, by stimulating additional investment, against two counterfactual scenarios: (a) the project would not be profitable without the aid, irrespective of the location (so-called "investment incentive" or scenario 1) or (b) the project would not happen in the assisted region without the aid (so-called "location incentive" or scenario 2).[75] Finally, the proportionality test required that the amount and intensity of the aid be limited to the minimum needed for the investment to take place in the assisted region. In practice, proportionality was proven where the aid was scaled-down as established by the RAG 2006 reduction scale and (in the first counterfactual scenario) the return of the investment did not exceed the rate of return commonly observed in the industry concerned or (in the second counterfactual scenario) it did not overcompensate the difference between the net costs to carry out the project in the assisted region and in the alternative location.[76]

Moving to the negative effects of the aid, the Commission introduced an important innovation in that it became much more explicit on the types of distortions relevant to regional aid and on the circumstances under which one could expect these distortions to occur. It assessed as a first standpoint the potential effects of regional aid on market competition, under the profiles of crowding-out of private investment, the creation of market power (measured using the antitrust set of tools) and the creation or maintenance of inefficient structures. In particular, overcapacity created by the aid in structurally declining markets when the decline was expected to last in the long-term gave rise to a sort of *per-se* prohibition. The Commission considered that such aid entails the risk of creating or maintaining inefficient market structures and transferring social problems (mainly job cuts) towards other existing locations within the EU. The Commission also made it clear, however, that such effects on competition are a relevant concern only for aid effectively producing an "investment incentive" (i.e. the aid causing an increase in capacity); in case of aid producing a pure "location incentive", in fact, the

[71] *Ibid.*, para. 68.
[72] Communication from the Commission concerning the criteria for an in-depth assessment of regional aid to large investment projects (2009) OJ C223/3. Large Investment Projects are defined as projects for which the eligible costs exceed 50 million euros.
[73] *Ibid.*, paras 11-16.
[74] *Ibid.*, paras 17-18.
[75] *Ibid.*, paras 19-28.
[76] *Ibid.*, paras 29-36.

Commission held that as long as the aid was proportional (limited to the minimum necessary) there would be no foreseeable effects on market competition, given that the investment would have occurred anyway, even in the absence of the aid.[77]

In the case of a "location" scenario, the Commission set out to concentrate its assessment on the nature and direction of the location change. Where it could be established that the location incentive would not go against the cohesion objective, i.e. would not draw the investment away from even more disadvantaged regions in the EU, the measure would likely be approved. Where the location incentive was at the expense of more disadvantaged regions, the aid would not be approved.[78] The same approach applied, mutatis mutandis, to cases where the new investment entailed a closure of existing facilities in the EU (relocation cases).[79] For cases featuring mixed scenarios (investment and location incentive), the Commission would consider both the effect on market competition and location choice.

Therefore, once positive and negative effects had been identified, the Commission had to carry out its balancing exercise no longer uncritically or mechanically, as it was under the RAG 2006, but rather proceed to an overall assessment of the relative importance of positive and negative effects on a case by case basis, before approving, conditioning or prohibiting the aid.[80]

2.2.4. The 2012 State Aid Modernisation and the adoption of the RAG 2014-2020

Before the expiry of the RAG 2006, competition policy, and State aid policy in particular, underwent a new wave of reform. In the wake of its Europe 2020 Communication,[81] a strategy to promote smart, sustainable and inclusive growth against the economic and financial crisis, the Commission launched the State aid modernisation ("SAM") initiative in May 2012.[82] We refer to the SAM as the third phase of modernisation in the field of State aid.

With the SAM, after considering that "stronger and better targeted State aid control can encourage the design of more effective growth-enhancing policies" and "contribute to improving the quality of public finances" which was considered a new and essential objective of the State aid policy in the context of the financial and economic crisis, the Commission recognised the need for modernisation of State aid control. On the one hand, the complexity of substantive rules and of the procedural framework, applying equally to smaller and bigger cases, constituted challenges to State aid control. On the other hand, the Commission considered the expiry of several key State aid instruments; the strengthening of the economic and budgetary surveillance system under the Stability and Growth Pact[83] and, in parallel

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[77] Specifically, para 40 specifies that if "the counterfactual analysis suggests that without the aid the investment would have gone ahead in any case, albeit possibly in another location (scenario 2), and if the aid is proportional, possible indications of distortions such as a high market share and an increase in capacity in an underperforming market would in principle be the same regardless of the aid."
[78] *Ibid.*, paras 53.
[79] *Ibid.*, paras 54. .
[80] *Ibid.*, paras 52-56.
[81] Communication from the Commission – Europe 2020 – A strategy for smart, sustainable and inclusive growth, COM(2010) 2020 final of 3 March 2010.
[82] Communication from the Commission – State Aid Modernisation (SAM), COM(2012) 209 final of 8 May 2012.
[83] After the sovereign crisis in the Eurozone, national macroeconomic policies are increasingly becoming more coordinated, e.g. through the EU's Macroeconomic Imbalance Procedure, part of the reinforced Stability and Growth Pact, which entered into force in December 2011 with new rules for economic and fiscal surveillance.

with the cohesion policy, the preparation of the EU Multiannual Financial Framework and of the EU Structural Funds rules for 2014-2020.[84]

Accordingly, the Commission set out three objectives of modernisation: (a) to foster sustainable, smart and inclusive growth in a competitive internal market; (b) to focus the *ex ante* scrutiny on cases with the biggest impact on internal market whilst strengthening the Member States cooperation in State aid enforcement; (c) to streamline the rules and provide for faster decisions.[85] As regards the first objective, the SAM proposed the identification and definition of common principles applicable to the assessment of compatibility of all the aid measures carried out by the Commission, with a focus on the definition and assessment of genuine market failures or equity needs, the incentive effect and the negative effects of public interventions, including, potentially, considerations on the overall impact of the aid.[86] As regards the second objective, the SAM suggested to prioritise and reinforce the scrutiny of aid measures with a significant impact on the single market, accompanied by a simplification of the control of cases with a lesser effect on competition and trade, notably via a new General Block Exemption Regulation (GBER). These measures would have to be complemented by an increase of the responsibility of Member States[87] and the *ex post* monitoring by the Commission. Finally, the SAM proposed a review of the procedural rules, to provide for faster decisions, and of the State aid guidelines (including the RAG), to be consolidated with the common principles of assessment and the other objectives of the reform.[88]

Based on the broad policy orientations of State aid modernisation, the Commission adopted the new Regional Aid Guidelines for the period 2014-2020 on 19 June 2013.[89] After extensive consultations, and following the amendment of the Enabling Regulation,[90] a new GBER[91] adopted on 17 June 2014 eventually complemented these guidelines. The new RAG and GBER, applicable as from 1 July 2014, will expire on 31 December 2020.

The main elements of the new RAG and GBER (i.e., the law currently in force) will be set out in Section4. Before that, however, we will first discuss the economics underlying regional aid and reflect on the Commission's approach to distinguish between "good" and "bad" regional aid.

[84] *Ibid.*, paras 5-7.
[85] *Ibid.*, para. 8.
[86] *Ibid.*, para. 18.
[87] Against a possible enlargement of the measures exempt from notification, the Commission demanded Member States to ensure the *ex ante* compliance with the new rules, together with better cooperation and improved efficiency of the national systems of enforcement of State aid rules. See para. 21 of the SAM Communication.
[88] *Ibid.*, paras 18 and 23.
[89] Guidelines on regional state aid for 2014–2020, [2013] OJ C209/1.
[90] Council Regulation No 733/2013 of 22 July 2013 amending Regulation (EC) No 994/98 on the application of Articles 92 and 93 of the Treaty establishing the European Community to certain categories of horizontal State aid [2013] OJ L204/11.
[91] Commission Regulation (EU) N°651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty [2014] OJ L187/1.
[91] Commission Regulation (EU) N°651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty [2014] OJ L187/1.

3. Analysis of the economic rationale for regional aid and competition concerns

Investments by firms bring employment, income and growth to a region. In some Member States, Foreign Direct Investment (FDI) inflows are a major source of capital and investments. For instance, pre-crisis, between 2005 and 2007, average FDI net inflows as a proportion of GDP were between 15% and 23% in Bulgaria, Malta, Belgium and Estonia.[92] The attraction of foreign private investments is hence an important pillar of a regional development strategy. State subsidies is one policy instrument available to local, regional or national governments to tip the investment decision towards an otherwise disregarded location. Hence, state subsidies can be, and are considered to be, an important element of the EU's policy objective of equal growth opportunities throughout the European Union.

Winning investment in one region may come to the detriment of another region, though, potentially creating severe and negative cross-regional externalities. In some cases the negative externalities imposed on neighbouring regions which lose out on the investment opportunity outweigh the benefits felt in the beneficiary region. In those instances regional State aid has to be considered counterproductive ("bad State aid"), not only from the perspective of the regions affected by investment outflow but also from a broader European perspective. In this section we discuss the economics underlying regional aid[93] and reflect on the Commission's approach to distinguish between "good" and "bad" regional aid.

In order to cope with our objective to assess the changes introduced in the third phase of modernisation from an economic perspective, the following chapter starts by introducing the concept of agglomeration effects (Section 3.1). Agglomeration effects are central for an understanding of regional economics. Thereafter we turn to the objectives of regional aid and discuss the distinction between equity and efficiency considerations in general and the relevance of local market failures in particular (Section 3.2). We also discuss how to evaluate an aid measure's effectiveness (Section 3.3). Finally, the potential negative effects of regional aid measures are categorised (Section 3.4). Existing evidence on the effectiveness of investment aid specifically related to aid measures focussing on large firms is reviewed in Section 3.5.

[92] European Union (2013, p.10).

[93] There exists a rich economic literature – both conceptual and empirical – relevant for an economic assessment of regional State aid. The literature ranges from the economics of attracting foreign direct investments, regional economics, the industrial organisation of spatial competition, the policy evaluation literature up to macroeconomic growth models of convergence. This chapter offers an introduction to the main concepts and offers a starting point for further reading. It benefited from several excellent and complementary survey papers: Combes and van Ypersele (2013) offer a European view on the matter; both theoretical and empirical findings are presented. Neumark and Simpson (2014), focus their survey on empirical results comparing studies in the US and Europe. Glaeser and Gottlieb (2008), Moretti (2011) and Kline and Moretti (2014) represent US centred views on regional policies. Thomas (2011) provides a comparison of regimes regulating location aid in Europe, US, developing countries and internationally. For a recent overview of the EU Cohesion Policy see McCann (2013).

3.1. Agglomeration effects – a brief introduction

Agglomeration effects describe a (quantitative) relationship between some measure of local density and productivity. According to Combes and van Ypersele (2013) there is an emerging consensus in the academic literature that a 100% increase of local density (e.g. measured by inhabitants per square km) results in an at least 3% increase in productivity of the firms active in that region. Given that density values, according to the authors, can easily differ by a factor of 10 from region to region, the pure agglomeration effect can therefore explain up to a 30% higher productivity in a highly dense region compared to a sparsely populated one – an impact which is economically significant.[94]

Agglomeration effects offer both an explanation as to why governments want to attract (a critical mass of) firms, namely to win self-sustaining industrial clusters, and why governments have to offer compensation to early investors in return: Incentivising firms to locate and expand in regions that are below the critical mass requires offering them some compensation, given that they forgo the opportunity to locate in more attractive regions.[95]

The following economic forces are identified by the academic literature as the main drivers of agglomeration; ranking is based on their empirical relevance:[96]

- **Natural advantages which constrain specific production to specific regions:** This obvious cause for regional agglomeration is considered to be one of the single most important, even if not the only cause. It is specifically relevant for particular regions and industries.[97]

- **Advantages deriving from proximity to providers of intermediate non-tradable goods and services:** Some intermediate goods and services are non-tradable. For instance, specialised repair and support services or venture capital relying on local know-how are costly to deliver to distant customers. Hence, such intermediate goods producers and their customers form regional clusters. In addition, firms using the same specific intermediate goods and services as the incumbent local firms, have a strong incentive to locate close to the incumbents in order to benefit from those services as well. This in turn may further increase, due to economies of scale and scope, the productivity of the intermediate producers. A virtuous concentration/productivity cycle starts until it hits congestion ceilings, e.g. property costs and other constraints.[98]

- **Advantages deriving from thick labour markets:** The main idea here is that the matching of workers and firms is easier in regions with thick labour markets, i.e. local labour markets that are sourced by a large pool of resident employees and employers. In such regions job matches will be better and the risks of not finding a new job or of having lasting vacancies at a firm, are

[94] Combes and van Ypersele (2013), p. 6. On the impact of productivity on a region's long run wealth, see also Kühn (2012).
[95] In the State aid practice, the (presumed) lack of attractiveness of disadvantaged regions is commonly referred to as the "regional handicap".
[96] Moretti (2011), p. 1286, Ellison et al. (2010). The ranking is based on the empirical findings of Ellison et al. (1999, 2010).
[97] Ellison and Glaeser (1999) estimate natural advantages to account for 20% of agglomeration effects only. Ellison et al. (2010) find them to be the single most important factors, but other factors being, in combination, more important.
[98] Transportation costs may also link producers to end consumers. However, declining transportation costs and the tradability of most end user products nowadays limit this effect and allow industrial clusters to be located further away from end consumers (Moretti 2011, Fn 41 and Ellison et al. 2010, p. 1200).

minimised. Accordingly, overall productivity will increase.[99] Equally, firms with volatile, idiosyncratic demand shocks prefer to operate in regions with thick labour markets in order to not be exposed to rising wage costs in situations of strong demand for the firm's products and services.

- **Localised knowledge spillovers:** human capital (e.g. in the form of knowledge and know-how) accumulated by individuals working in firms may spill over to other individuals and firms located close by, through formal or informal contacts. Again, this effect could be amplified through feedback effects as the elevated human capital spreads further, or because of other positive side-effects: For instance, if physical and human capital are complementary, an increase in human capital of the work force will incentivise firms to match this increase with an increase in physical capital. Finally, employees with a lower level of human capital will also stand to benefit and earn larger wages than in other regions, incentivising people to move into that region.[100]

When assessing the welfare implications of agglomeration effects on specific actors in the economy, some fundamental relationships, which are specific to regional economics, need to be understood.

First, the characteristics of the product and the production process are relevant. Specifically, whether the product and its intermediate inputs are tradable or not and differences in trade costs along the supply chain (e.g. transportation costs) determine the localisation of economic activity. The relevance of knowledge and know-how in the production process determines the extent to which knowledge spill-overs will be rewarded as well as the economic forces which move production close to existing clusters of research. The need for specialised services for efficient production (employers with a specific skill set; specialised supplier of inputs; customer base) and the usability for other industries of those specialised inputs are other factors determining the (co-) agglomeration of industries, and the extent to which specific sectors will benefit from agglomeration.

Second, the effect of an emerging cluster on local wages and real income depends on the mobility of people and the rigidity of the housing market. Theoretically, the beneficial effect of an industry cluster for a new region can be fully appropriated by (eventually non-local) property owners instead of (local) employees. This is so as the inflow of workers into a region in response to increased job opportunities induces property rents to rise if property supply is inelastic. It then depends on who owns local properties to understand who mostly benefits and whether there will be a positive local impact at all. Those economic linkages can limit, or indeed nullify a desired increase of real income of local employees induced by regional aid.

3.2. Objectives of regional State aid

By fostering investment, firms bring employment, income and growth to a region and hence may help to reduce the development gap across the EU. Agglomeration effects do have an impact on those factors; they do not *in themselves* justify, though, using State money to influence investment decisions by firms. For the purpose of assessing that specific question, one needs to have a closer look at the exact objectives of regional State aid policy in the European Union.

[99] The effect on wages can be diverse and might differ between skilled and unskilled workers and depend on labour mobility and the rigidity of property/house prices.
[100] Acemoglu (1996).

The primary objective of regional aid is to establish convergence in economic growth between different regions in the European Union. Paragraph 30 of the RAG 2014-2020 formulates: "The primary objective of regional aid is to reduce the development gap between the different regions in the European Union. Through its equity or cohesion objective regional aid may contribute to the achievement of the Europe 2020 strategy delivering an inclusive and sustainable growth."

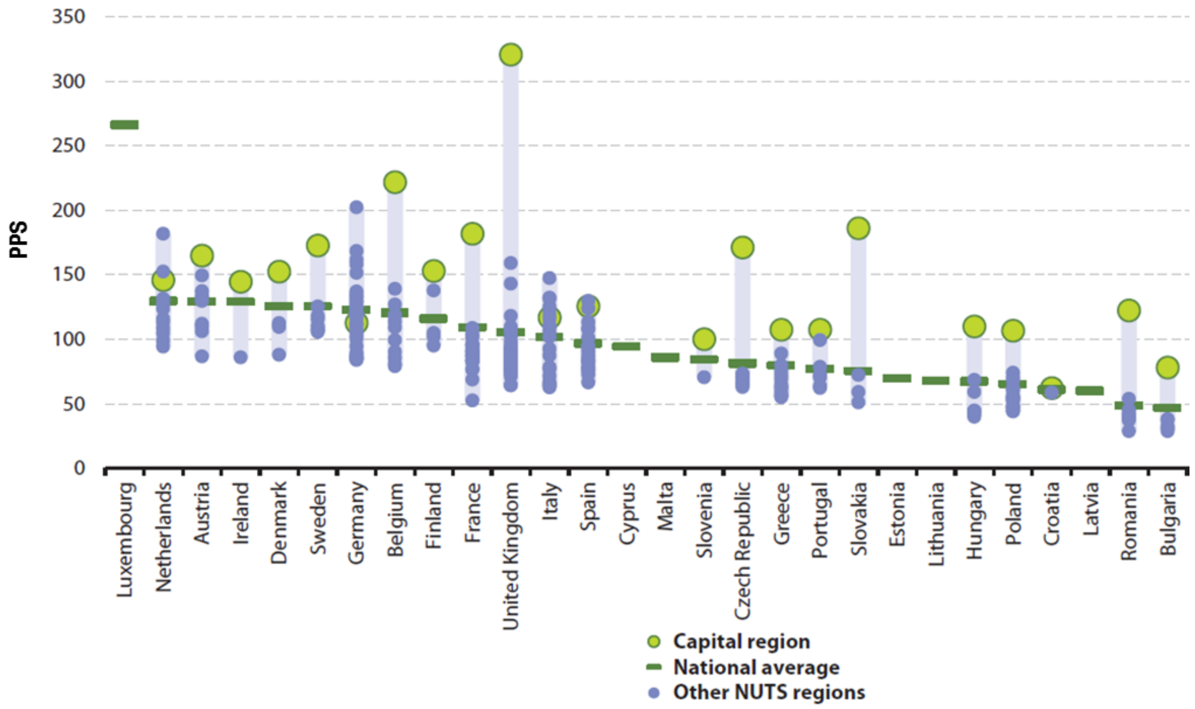
In the short term, regional aid may attempt to buffer political and social tension between or within Member States by equalising wages and income, increasing employment in lagging regions or reducing migration incentives. In the long run, the focus is on productivity improvements, jumpstarting growth by exploiting agglomeration economics and/or offering greater protection against regional shocks through diversity.[101]

Factually, as can be seen in Figure 1 below, a persisting difference in GDP per inhabitant across different Member States (also called inter-Member State dispersion/convergence) and within Member States (also called intra-Member State dispersion/convergence) can be observed.[102]

[101] Kühn (2012), p.4

[102] Firgo and Huber (2014) estimate the intra-State convergence in Europe for a dataset of 269 NUTS 2 regions in 21 European countries from the period 1991 to 2009. They find no consistent convergence process within individual countries. For instance some of the Spanish regions with below country average GDP in 1991 (labelled "poor" regions) converged towards the country mean during that period while other "poor" regions diverged away from the country average (those located in the North-West of Spain. They also find the convergence process often to be driven by a few exceptional years, indicating that convergence is often not a smooth and continuous process but driven by idiosyncratic shocks. Growth strategies based on increasing human capital investments and innovation capacities are considered by the authors the most likely successful strategies to trigger convergence. Vollmer et al. (2013) find for the example of Germany some evidence of intra-State convergence post-unification.

Figure 1: Regional disparities in gross domestic product (GDP) per inhabitant, in purchasing power standard (PPS) by NUTS 2 regions, 2011.



Source: Eurostat regional yearbook 2014, p. 130, based on Eurostat data (online data code: nama_r_e2gdp). The national average GDP per inhabitant is represented by the green dashed line; the green dots show the GDP per inhabitant at the capital region, the blue dots show the GDP per inhabitant of the other NUTS2 regions in a respective country. NUTS2 is standard geographic classification used by Eurostat.

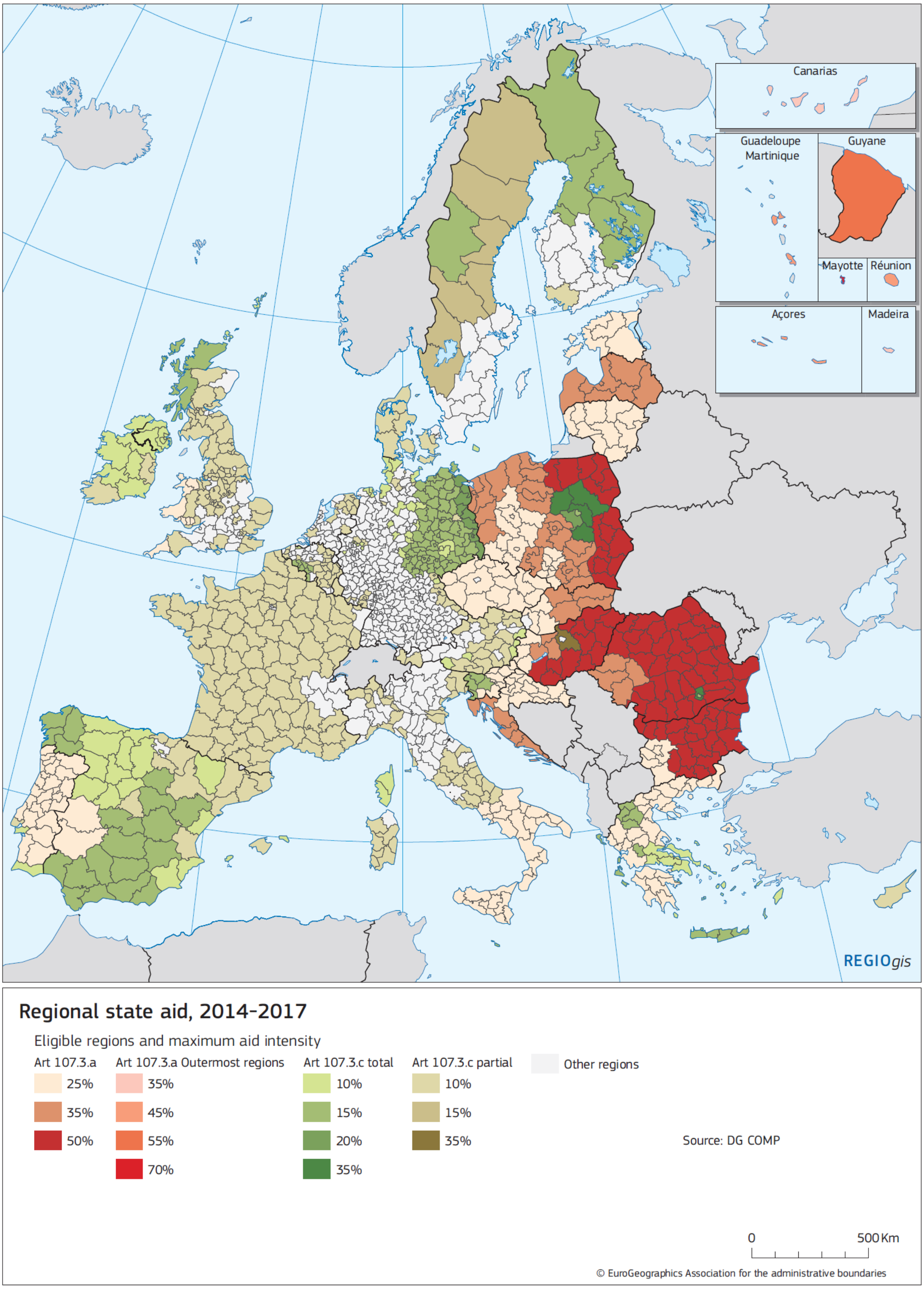
To some extent this fact is due to the dramatically different impact the protracted financial crisis has had on various Member States and the divergent economic success of Member States during the recovery phase post-2008. The financial crisis reversed some of the apparent successes of the regional aid policy of the last two decades.[103] Historically, one has to acknowledge though that Europe is (and has been before the financial crisis) one of the most heterogeneous clusters of nations which have agreed to form an integrated single market. In fact, the variation of national and per-capita income across the EU almost exactly matches the variation across the entire bloc of 34 OECD countries, which include – beside many EU Member States – high income countries such as Switzerland, Norway, the US and Australia and lower income countries such as Mexico, Turkey and Chile.[104]

The regional aid guidelines and the GBER section on regional aid translate the broadly formulated EU cohesion objective into operational criteria to define which regions are to be qualified as "disadvantaged", based on GDP per capita relative to the EU average and relative to the average in the Member State concerned (see definitions of Article 107(3)(a) and 107(3)(c) TFEU regions). In operational terms, the more a region is disadvantaged, the greater the degree of aid (measured by the aid intensity) which can be given to firms located in that region. By contrast, in regions which are not disadvantaged, no regional aid can be given (but only "generic" forms of aid such as R&D aid, SME investment aid, etc.)

[103] McCann (2013, p.12).
[104] McCann (2013, p.5).

This policy is most vividly expressed though the "regional aid map" of the EU, which forms an integral part of the RAG and indicates, for each region, the maximum applicable aid intensities. For the period 2014-2017, the map looks as follows, where the more darkly red coloured regions indicate the most disadvantaged regions/the regions that give most aid:

Figure 2: Regional aid maps 1.7.2014 - 31.12.2017.



Source: European Commission, DG COMP, http://ec.europa.eu/competition/state_aid/regional_aid/regional_aid_2014_2017.pdf

While the definition of eligible regions mostly depends on GDP indicators (per capita) and unemployment rates, the Commission has in individual cases in the past been willing to look into more detailed measures in specific cases than simply referring to maximum aid intensities according to regional aid maps. For instance, in the Dell Poland case of 2009 the Commission was - when balancing the pros and cons of the aid measure - not only referring to the relative GDP and unemployment rates of the FDI winning region in comparison to the second-best location (and the associated maximum aid intensities), but also taking into account the so-called 'at-risk-of-poverty-rate' and migration flows.[105] In the 2014 version of the RAG (presented in more detail in the next section) this more flexible approach seems to have disappeared, though, to the benefit of a more automatic rule based on relative regional handicaps as measured by the maximum aid intensities applicable to the regions concerned.[106]

In order to assess whether State aid is necessary to achieve the objective of common interest (in this case: EU cohesion), it is necessary first to diagnose the factual situation. In order to be effective, State aid should be targeted towards situations where aid can bring about a material improvement that the market cannot deliver itself. Economists distinguish in this context between efficiency and equity objectives of state intervention.[107]

3.2.1.Rationales for state intervention: Equity vs efficiency

Applying concepts developed in the economic theory, whether a measure contributes to an objective of common interest can be understood either in terms of its contribution to overall welfare and efficiency or in terms of equity.[108] All objectives of common interest can thus be described as contributing to efficiency and/or equity. In a nutshell, efficiency is about becoming better at things; equity is about becoming (more) equal, either in outcome or in opportunity.

To justify State aid under an efficiency objective it has to be targeted to a market failure. It is only in those instances that State intervention has the potential to increase efficiency.[109] Consider, for instance, an SME with a commercially promising project, but that does not receive funding by investors (e.g. venture capitalists) because of its inability to offer collateral and transparency towards investors (inducing problems of adverse selection and moral hazard). In such circumstances, the State may consider resolving the market failure related to access to finance by increasing transparency, e.g. by supporting a trading platform for SME financing. The additional financing available to SMEs will induce an increase in the number of (profitable) investments being carried out and, hence, will increase the efficiency of the overall economy.

In contrast, when aid is granted based on an equity objective a different economic concept becomes central: namely the question of the effectiveness of the aid measure in reaching its equity objective. If

105 Commission Decision C 46/08 (ex N 775/2007) Dell Poland, para 219–223. OJ 2 Feb 2010 Vol 53, L29. The 'at-risk-of-poverty-rate' defines the share of people with a net disposable income (after social transfer) below the at-risk-of-poverty threshold, which is set at 60 % of the national median net disposable income after social transfers. European Commission (2013, p.10).

106 See RAG 2014, points 121 and 139.

107 Friederiszick et al. (2008) offer a general discussion of those concepts within European State aid control. For an application of those concepts to regional aid, see Combes et al. (2013) and Moretti (2011, chapter 5, p. 1296–1308).

108 Cf. J.E. Stiglitz (2000). See also the Commission's Draft Communication 'Common principles for an economic assessment of the compatibility of State aid under Article 87.3 EC' (2009), para 49.

109 Note that the existence of agglomeration effects is not the same as the existence of a market failure. However, in a setting with agglomeration effects local market failures can arise, potentially resulting in under- or over-agglomeration. Combes and van Ypersele, (2013). Furthermore, it has to be noted that not every "failure of the market to produce a politically wanted outcome" is considered a market failure. It is only when the market does not produce the efficient outcome that the notion of market failure applies. Stiglitz (2000) and Friederiszick et al. (2008).

the policy goal is to increase jobs in rural areas, a guiding principle is, for instance, the cost effectiveness of a specific measure to deliver this outcome.

Within the context of regional development the two objectives are – by and large – in conflict. This is not to say that the decision of a firm to invest in a specific region may not result in significant positive externalities for that region, rather the opposite. However, there are lasting and economically significant forces driving economic activity towards production in clusters, be it cities or entire regions. The flipside of densely populated and vibrant hot spots are isolated areas; there is no core without periphery.

Accordingly, in most instances where economic activity is moved from one location to another, there is a price to be paid for a regionally more equal distribution of economic activity in the form of a reduced overall efficiency of the economy.[110] In the long run, however, the objective of regional aid is potentially in line with the objective to foster economic growth in the Union as a whole, given that also rich regions stand to gain from increased levels of economic activity in the assisted areas. [111]

The Commission's regional aid guidelines seem to accept this proposition and define the primary objective of regional aid as an equity objective. Still, market failure considerations are not excluded by the RAG. From an economic point of view, market failure considerations are important for the assessment of regional aid measures for two reasons.

First, many aid measures that primarily pursue a market failure targeted objective do have a regional impact. For instance, schemes approved under the risk capital guidelines might, de facto, mostly benefit specific, underdeveloped regions. For instance, this is the case when firms that are affected by capital market imperfections are located mostly in these regions.[112] Equally, training aid which addresses frictions in labour markets often has a strong regional (and sectorial) footprint as well. Hence, solving a horizontal market failure may, as a secondary objective, also deliver positive effects to underdeveloped regions.

Second, it is only when some form of *local* market failure is addressed and/or agglomeration effects can be exploited[113] that the impact of aid is potentially long-lasting and, hence, effective.[114] To see this, consider that European demand supports the expansion of European car manufacturing capacity.

[110] Theoretically, situations may arise where this trade-off does not arise. For instance, the choice between two alternative locations for cluster formation which are ex ante similar can be induced by a small initial investment subsidy and without any loss in efficiency. In practice such situations are rare, however, as they require no pre-existing industrial clusters (which would otherwise attract emerging clusters due to co-agglomeration effects). Furthermore, within a multi-jurisdiction context, like Europe, competition between governments for foreign investments can also be wasteful in such kinds of situations. An even more direct, negative relationship can occur in local markets: When location density and intensity of competition in product markets are correlated, aid induced segmentation reduces local competition. This trade-off is, however, relevant only for industries which compete locally. Combes and van Ypersele (2013).

[111] When citizens receive a utility from a more equal distribution of wealth, social welfare maximisation may support a policy that is willing to trade-off efficiency losses against redistribution gains. See Combes and van Ypersele (2013) for a discussion.

[112] Many examples can be found. For instance, case SA.36900 (2013/N), involving a venture capital fund for SMEs located in the land of Styria, a region of Austria; Case N 334/2006; C 56/2000, involving a regional venture capital fund in the UK, which was justified because it "proved more difficult for SMEs far from London to obtain risk capital" (N 334/2006; C 56/2000).

[113] The existence of a market failure is not the same as the existence of agglomeration effects.

[114] Neumark and Simpson (2014, p. 73/74). McCann (2013, pp.84). Also in the case where regional aid targets local market imperfections, the trade-off between equity and efficiency remains, though in a slightly less attenuated form (Kline and Moretti, 2010, p. 634).

Assume further that due to agglomeration externalities the most efficient allocation of the new investments is at one location only, say, region A, a rich industrialised region. Regional aid may influence the firms' investment decision in two different ways: it may either push the location decisions away from region A to region B, which is less well industrially developed and less attractive for the firms to locate in. Regional aid is then required to compensate the firms for pre-existing comparative advantages of region A if it is to persuade them to move to location B. Alternatively, regional aid may seek to disincentivise agglomeration and spread the location of firms over the two different locations, i.e. at region A and region B.

Within the context of this arguably highly stylised example, the first regional policy will result in lasting long-term gains for the benefiting region B. The industrial cluster of new firms may exhibit the critical mass, that is, produce sufficiently strong local agglomeration effects, to stay competitive even after phasing out of State support. Put differently: even after the last tranche of State aid has been granted and the accompanying commitments to remain at this locations have elapsed, the economics of agglomeration produce path-dependency/lock-in effects, making it profitable to firms to stay in that region. The alternative policy, spreading investments over different locations will, however, be reversed as soon as State support elapses or commitments phase out. It will, hence, invite continuous claims for subsidisation.

This example is built on a general principle: resolving local market imperfections or exploiting agglomeration effects enables lasting gains on the (equity) objective. Accordingly, and despite the fact that regional aid is often motivated by equity objectives, i.e. "*inclusive* growth", the assessment of (local) market failures, i.e. "*sustainable* growth" is relevant too. Given the focus both of the second and third modernisation phase is on competitiveness and growth, this principle will most likely become more important.

We will briefly introduce the most important market failures at a local level in the following subsection.

3.2.2.Local market failures

In the realm of regional aid, specifically investment aid, the following market failures are typically considered to be most relevant:[115]

- **Agglomeration economies** itself, e.g. in the form of productivity spillovers, can justify intervention when not fully internalised by the private actors, e.g. governments may support cluster formation as individual firms do not fully appropriate the benefits they produce on other firms in the cluster and, hence, underinvest. Agglomeration economies may also be exploited effectively, as previously described, to implement a regional development strategy for equity reasons.

- **Public (or quasi-public) goods**, such as local or regional infrastructure (e.g. broadband, roads or pipeline systems), which allow for the development of complementary economic activities are typically underprovided by the private sector, as it is difficult for the owner/operator of the

[115] See Kline and Moretti (2010), p.634.

infrastructure to appropriate the commercial benefits of such complementary activities. Increasing the local availability may increase efficiency.[116]

- **Imperfections of local capital markets**. Local firms may be exposed to credit constraints as creditors lack knowledge of their business potential. Without "soft" or local information creditors may not be in a position to distinguish between underperformance due to misbehaviour of the credit taker and local demand shocks.

- **Pre-existing government interventions**. Many government interventions which target individuals (e.g. income taxation) do have a region-specific impact. Specifically, labour market rigidities, e.g. a minimum wage, may lead the unemployment rate of a region to be too high. Correcting those pre-existing distortions may, in a second-best setting, improve welfare.[117]

To the extent that these market failures are localised, spatially targeted government interventions have the potential to improve regional efficiency and, hence, regional growth. However, a careful assessment is required. For instance, large firms can partly internalise local productivity spill-overs (agglomeration economics) and hence are less affected by this market failure. By the same token, attracting large firms can be considered an "easy cure" to underinvestment in such settings.

3.2.3. Categories of regional aid measures and their effectiveness

Given the broad objective of regional aid a large set of different aid programmes can be identified. They can be distinguished by whether they have a more local vs a regional level; whether they target businesses in general or are specific to sectors; whether State money is granted directly to firms in return for investment or whether firms are attracted by improving regional infrastructure; whether the aid granted is discretionary or not. In line with these elements Neumark and Simpson (2014) identify five main categories of regional programmes targeting enterprises.[118]

First, enterprise or empowerment zones target job creation in suburbs of larger cities or in (parts of) municipalities with higher poverty or unemployment rates. The focus is typically local. For instance, the various French enterprise zone programmes offer reductions of taxes and employer social contributions to firms willing to expand or create new jobs in the eligible parts of a municipality.[119]

Second, business development, attraction and retention programmes are broader schemes such as, for instance, the UK enterprise zones[120] or the (East) Germany investment support programmes.[121] They

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[116] It has to be noted, though, that investments in transport infrastructure can have counterintuitive effects on the emergence of industrial clusters as they change the tradability of products and services. For instance, they may expose local industries to increased competition from firms located further afield previously not active in the local market concerned.

[117] These situations are typically labelled "second best" constellations. The first best solution would be to resolve the pre-existing government intervention directly. Combes and van Ypersele, (2013), p. 5.

[118] Neumark and Simson (2014) also list community development and locally-led initiatives as a further category. These policies focus on affordable housing and economic development and are implemented by tax credits to investors or real estate developers. Given their microregional level and only partial enterprise focus those programmes are less relevant from a European State aid perspective.

[119] The French enterprise zones are analysed in various papers. See: Mayneris and Py (2014); Mayer, Mayneris and Py (2014); Briant, Lafourcade and Schmutz (2013) Givorda, Rathelot and Sillarda (2013). Empowerment zones are also common in the US. The California enterprise zone programme, the US Federal Empowerment Zones and the US Federal Enterprise Communities are examples thereof. See Neumark and Simson (2014), table 2, for an overview of empirical papers related to those programmes.

[120] http://enterprisezones.communities.gov.uk/about-enterprise-zones/

[121] Alecke et al. (2010).

offer reduced business tax rates or enhanced capital allowances in order to incentivise economic activity in larger lagging regions (like the former East German territory). They are typically not focussed on specific industries or services and are non-discretionary (i.e. all firms fulfilling the conditions for aid are eligible).

Third, cluster promoting programmes attempt to incentivise collaboration and co-operation between firms, or between firms and public research institutions. Here the focus is often more on excellence and technological leadership than on fostering growth in lagging regions. For instance, in the region of Bavaria (southern Germany), the "Bavarian High-Tech Offensive" facilitates access to public research institutions, offering venture capital funding, and to science parks. It targets specific high-tech sectors (life sciences, IT technology, innovative materials, clean technology, and mechatronics). All firms active in Bavaria are eligible. Those programmes do often have a strong regional footprint, but do not fall under the regional aid guidelines. The "Bavarian Hightech Offensive", for instance, was approved under the R&D Guidelines.[122]

A fourth category can be seen in support of infrastructure in specific areas, like telecommunications or transportation infrastructure, investments linked to energy or innovation or general training support. In Europe many of those programmes are channelled via the EU Structural Funds, notably the European regional development funds (ERDF) or the European Social Funds (ESF).

Finally, there are the discretionary grants such as the UK Regional Selective Assistance (RSA) scheme[123] or the Italian Law 488.[124] These schemes are focussed primarily on the manufacturing sector and offer subsidies on the new investment of firms in regions with below-average employment. The awarding process is discretionary, e.g. based on a case-by-case assessment as in the UK RSA scheme or based on a scoring system as in the case of the Italian Law 488. In the extreme, aid is offered outside a concrete scheme and is given ad hoc to larger firms willing to locate in a less-developed region. Given its discretionary and often highly selective character those forms of regional State support are often among the most contested ones.

More in general, a government may seek to encourage growth by influencing firms' location decision. Glaeser and Gottlieb (2008, p.156) point out that – from a conceptual efficiency-oriented perspective – localisation should be in areas that are most productive and where the elasticity of productivity with respect to agglomeration is highest. To the extent that this elasticity varies across regions regional aid could be a policy instrument to incentivise agglomeration at the overall optimal location.[125]

In the European context, and accepting equity as a primary objective, the guiding principle might be more narrowly defined: investments should be incentivised towards lagging regions where the effectiveness of the aid in reaching commonly shared cohesion objectives is highest.

The effectiveness of an aid measure is described by the ratio between outcome, i.e. direct or indirectly created new jobs or additional investment for the case of a regional investment aid, and State resources spent. It is measured in most instances in the form of the number of newly created jobs or investments per euro spent by the State. If one accounts for the real possibility of a decreasing effectiveness of an

[122] Bavarian Technology Aid Scheme. N540/1999. See Falck et al. (2010) for an empirical evaluation of this program.
[123] http://www.hie.co.uk/business-support/funding/regional-selective-assistance/default.html .
[124] Bondonio and Martini (2012).
[125] There is mixed evidence, though, that this elasticity is varying. In addition, the information on where it is largest has to be known by the decision maker granting aid. See a discussion of this point by Moretti (2011, p. 1306).

aid measure (over time or in size), it is necessary to distinguish between the marginal and the average effectiveness of aid.[126] The effectiveness of aid measures often also varies significantly across the instruments used.[127]

Central to a reliable empirical assessment, which crosses the bridge from correlation to causation, is however the identification of a proper counterfactual scenario, i.e. the question of what would have happened to the aid beneficiary without aid. The answer to this question is by definition hypothetical and, hence, to some extent speculative. In order to gauge the effect of aid, simple comparisons between aid beneficiaries and non-aid beneficiaries will typically not do, as it will give rise to the statistical problem of endogeneity.[128] The two groups of firms may perform differently, regardless of the aid, because they are not comparable to begin with. Indeed, it may well be that the aid scheme targets (or attracts) specific types of firm.[129] When these issues remains unaddressed, the observed correlations do not describe actual (causal) relationships, and the results are biased. Empirical research has identified various (quasi-experimental) methods to address this problem, however.[130] Those methods are (in the context of European State aid control) referred to as counterfactual evaluation methods.[131]

The above discussion has focussed, as is common in the literature on the effectiveness of aid, on ex post evaluation, usually on the basis of samples of support measures (and their comparators). For (large) individual investment projects the assessment of the effectiveness of the aid has to be done from an *ex ante* perspective as well, not only by the aid granting authorities (e.g. when selecting projects on their likely merits) but also by the Commission, in the context of notified aid. Here, forward-looking financial evaluation methodologies become relevant, to assess the profitability of the project both with and without the aid: the net present value (NPV) or internal rate of return (IRR) are the most relevant measures in this context. Scenario based financial analysis allows an assessment of the incentive effect of aid and the necessity of the amount granted.[132]

Still, there are some lessons to be learned from ex post methodologies when assessing an investment from an *ex ante* perspective. Specifically, a rigorous counterfactual analysis takes into account endogeneity issues, i.e. the firms applying for aid may have certain specific (unobserved) characteristics which makes that their performance cannot easily be compared with that of other firms in the economy (eligible for aid or not).

[126] Friederiszick, Neven and Röller (2003).

[127] Often empirical studies find significantly different levels of effectiveness of different instruments. A careful interpretation is required, though, as the calculation of the "cash grant equivalent" of the different measures is not trivial. It is also not always clear that the instruments are substitutable against each other.

[128] See also Commission Staff Working Document – Common methodology for State aid evaluation, 28.05.2014, available at http://ec.europa.eu/competition/state_aid/modernisation/state_aid_evaluation_methodology_en.pdf.

[129] A classic example is when all firms are eligible for investment aid. Firms which apply for aid must have an investment project (by definition) whereas firms which do not apply for aid are likely to be mostly firms without investment project (if they had a project, they would apply). Comparing ex post the average performance of aid beneficiaries with that of the other firms might merely establish that firms with an investment project performed better than those without a project, it would say very little about the role played by the aid.

[130] A rather critical view on what can be achieved by measuring the impact of policy interventions based on natural experiments is given by Hennessy and Strebulaev (2015). Since firms form expectations on policy changes completely unexpected changes do not exist or are very rare. Hence, the empirical researcher almost always has to address the problem of the endogeneity of the policy change, i.e. the introduction of a new State aid scheme.

[131] Standard methods comprise: difference-in-differences approaches, propensity score matching; discontinuities regression and instrument variable approaches.

[132] For an introduction to those concepts see Berk et al. (2014). For a recent application see the Spanish film studio cases, Ciudad de la Luz T-319/12 and T-321/12. Within the context of the Market Economy Operator Test the Commission discusses various of those concepts in detail.

Let us illustrate this with a specific example relevant to regional aid. Firms which are good at negotiating a large amount of aid in return for their investment (or location) decision from a government may also be good at operating their business. Both outcomes depend on the managerial skills available in the firm. Comparing the anticipated investment level or productivity of this beneficiary firm with an average firm's investment level or productivity and considering that difference to be the impact induced by the aid overestimates the effectiveness of the aid.

While this is a concern in any *ex post* assessment of an investment scheme, it also has to be taken into account when from an *ex ante* perspective economic indicators of the aid beneficiary are benchmarked with economic indicators of an average firm: for instance, an above-average productivity promised with the aid supported operations compared to an average firm may not be aid induced but a pre-existing feature of the firm. Equally, the firm may require an above-average return on investment due to higher opportunity costs compared to an average productive firm.[133]

A second insight coming from *ex post* evaluations for *ex ante* assessments is that predicted positive effects related to an aid measure are significantly over-reported when based on survey techniques. According to Bondonio and Martini (2012) and Alecke et al. (2010)[134] the number of newly created jobs based on surveys do in general overestimate the actual aid induced job impact according to rigorous *ex post* evaluation. The bias is close to a factor 4 and can, hence, significantly bias the assessment of effectiveness from an *ex ante* perspective, when this relies on the "best guess" of market insiders on the impact of the investment on local employment.

3.3. Distortions of competition and trade

There are several concerns related to regional investment aid. The RAG distinguishes between two main categories – product market related distortions and location distortions.[135] Product market related distortions are specifically a concern under scenario 1 measures as new or expanded capacity is brought to the market with State support. Location distortions are specifically a concern for scenario 2 measures. If aid incentivizes investment towards regions contrary to cohesion objectives this is considered detrimental to the objectives of regional aid.

In the following we discuss first 'wasteful spending and subsidy races' as it constitutes a broader concern, which builds the economic fundament for aid intensity ceilings as well as the basis for location distortions. Thereafter we will discuss product market related distortions under the headlines 'Building up of overcapacities' and 'negative impact on productivity, due to wrong entry/exit decisions or strengthening of market power.'

3.3.1. Wasteful spending and subsidy races

In a multinational context, a central concern related to State aid in general and to regional investment aid specifically is the threat of subsidy races between governments competing to attract new or

133 In the RAG 2014-2020, this issue is resolved by making clear that the internal rate of return of the project (without aid) needs to be compared with the cost of capital, i.e. with normal rates of return applied by the company in other investment projects of a similar kind (RAG, para 73). The same approach was also used in the Dell Poland case of 2009. See section III.4 for a detailed discussion of this case.
134 Bondonio and Martini (2012), p. 8 and Alecke et al. (2010), p. 44.
135 RAG para 113.

extended investment into a region. National or regional governments may not take into account the positive or negative spill-overs their own decisions have on other countries or regions.

There are two polar predictions on the welfare implications of this form of subsidy competition. Under the first view governments, acting rationally from an individual perspective, are trapped in a so-called prisoner's dilemma,[136] comparable to the situation arising within a strategic trade policy context. Governments attempt to attract firms which produce local benefits by offering subsidies in a setting where a firm can choose among several more or less equivalent locations (both with respect to the cost and benefits to the firm and the cost and benefits to the region). They end up in a situation where all governments offer financial incentives, which cancel each other out. The location decision may not even be influenced by the aid (in the event that the firm ends up choosing the region it would have chosen anyway) but the "winning" government has to hand out a large fraction, or even the entirety of regional benefits to the firm in the form of a subsidy - an outcome which is unwanted from a distributional perspective and is wasteful when the shadow costs of taxation are significant, as they appear to be.[137]

Under the second prediction on the welfare implications of subsidy races, competition between regional governments for investments is considered a private value auction for investment,[138] that is the costs and benefits related to a plant location decision varies across regions. When regional governments know the costs and benefits related to the investment for their region auctioning off the investment may lead to an optimal location decision. This result not only holds in situations of new investments but also in situation of relocation decision of firms, i.e. when the plant creation in one region has a negative impact on the other region.

There are several assumptions under which this positive result does not hold, though. For instance, when the amount of local benefits is comparable across regions, subsidy competition between local governments might be better described by the afore-mentioned prisoner's dilemma. Furthermore, when governments are budget constrained they may lose out in such a competition despite larger local benefits than in the alternative region. This is a particularly important downside nowadays, for the economic and financial crisis has had the effect of increasing the budgetary gap between richer and poorer Member States.[139] Other institutional constraints related to governments as well their incapability to commit credibly to a consistent subsidy policy over time may put the prediction of welfare increasing effects further into question. One may also contest that governments, specifically in some regions, act rationally when deciding to commit large amounts of public money to attract FDI[140] and/or are not prone to corruption.

In our view, Europe has chosen a balanced approach, allowing regional aid in the poorer regions (the 'a' and 'c' areas) under some (hard) maximum aid intensity ceilings and limiting those possibilities for

[136] The Prisoner's Dilemma describes strategic constellations in which players, acting individually rational, choose an overall inefficient outcome. The outcome for all players would be better if they coordinated.
[137] There is a rich literature on investment incentives to attract foreign direct investment. See, for instance, Fumagalli (2003), Equally the literature on tax competition provides a complementary view of subsidy races. See, for instance, Keen and Konrad (2014).
[138] Besley and Seabright (1999), Dewatripont and Seabright (2006), Moretti, E. (2011), p.1306/1307.
[139] Former Commissioner Almunia has referred to these distortions as the 'deep-pockets distortions'. Almunia (2013).
[140] Cf. Dewatripont and Seabright (2006). Dewatripont and Seabright note that politicians sometimes merely use State aid as an instrument to "signal" to voters that they actively pursue their interest. There is also some evidence that state transfers, like direct cash payments to voters, but also large infrastructure projects can positively impact the election outcome. Manacorda/ Miguel/ Vigorito, (2011) and Voigtländer and Voth (2015).

richer regions, i.e. allowing for a constrained room for subsidy auctions.[141] Still, even within these boundaries, unwarranted subsidy races may occur. Indications of a distorted negotiation process between investor and local government may justify a more critical view of specific regional aid measures. Equally, constellations for which differences in local benefits across regions are small, but the absolute value of regional benefits high, demand higher scrutiny in general. Finally, a localization aid which attracts an investment away from a less developed region to a prosperous region may be considered harmful aid as is works contrary to the convergence objectives of regional aid.[142]

3.3.2. Overcapacities and negative impact on productivity

Regional investment aid aims at incentivizing new or expanded production capacities at specific locations. It is worth mentioning from the outset that such "new" or "expanded" capacity does not necessarily translate in "capacity expansion" at the level of the firm itself (namely, when the aid merely changes the firm's location decision) or, even if it does increase firm capacity, at the level of the market. For a proper assessment of distortions of competition and trade related to capacity expansion some understanding of the affected relevant product and geographic market is required.

Having said this, firms' capacity decisions are based on expected future profits, discount rates and investment costs. Only if the net present value of an investment is positive will a capacity expansion take place. Granting aid to firms which is either not strictly necessary (has no incentive effect) or goes beyond the extra costs related to a non-optimal location decision, reduces investment costs artificially and will incentivise capacity expansion in addition to what would have happened without aid. In that sense, the check of the incentive effect/proportionality of aid serves as a useful "screen" to limit/avoid such scenarios.[143]

Specifically in the context of existing overcapacities, significant risks to competition and trade arise when the new investment effectively results into new or expanded capacities from a market-wide point of view. The following ones can be highlighted:

First, the creation of extra market capacity may give rise to important cross-country externalities. Additional capacity in one region may trigger the need for the closure of capacity in other regions. The closure of large plants in the other regions may result in frictions in the local labour markets and may require further State aid to limit social harm (e.g. training aid, R&R aid).[144] But even if the aid induced capacity does not directly result in capacity closure elsewhere, it will result in a lower need for capacity expansion in another region. This may happen because the aid beneficiary does not invest in the alternative region or because competitors of the aid beneficiary reduce their investment (so-called "crowding out effects").[145]

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141 In the recent reform (SAM) it has even further tightened the room for subsidy auctions, both within GBER and within the RAG (see Section 4)

142 See RAG para 116. It is considered a manifest negative effect – which can be counterbalanced by positive effects only in exceptional circumstances - if regional aid attracts investment away from a region with a higher or equal regional aid ceiling than the investment winning region (para 121).

143 For similar views, see also Verouden (2015).

144 For instance Dell received around 14 Million € training aid after closure of its plant in Limerick, Ireland. See detailed discussion of the case in section 3.3.4

145 Capacity decisions of firms are set strategically in response to competitors' capacity decision. Detrimental effects can occur, to the extent that firms tend to react to competitors' capacity expansion by reducing their own capacity.

Alternatively, if European countries act in parallel and all support capacity expansion in their home jurisdiction this would result in structural overcapacity, allowing firms not to earn the return on equity which is required to justify a sustainable investment in capital intensive industries. A cycle of aid promoted capacity extensions may be followed by phases of – eventually again aid supported – capacity contraction.[146]

In addition to these industry-wide distortions, regional aid can distort firms' incentives to compete and innovate. Regional aid supporting the extension of an incumbent plant which produces a new variant of the existing product may simply indicate insufficient investment by the incumbent in the past. Compensating this inefficient investment behaviour through State money rewards non-innovative firms to the detriment of others and will set incentives to passive behaviour in the future. Many comparably negative examples can be constructed;[147] the overall effect is substantial, as the threat of exit as well as extra profits in case of success is a major driver of firms' incentives to stay efficient in market economies.

Furthermore, regional aid can strengthen the market position of already powerful firms. Firms supported by aid can increase their market position through aid supported investment. For instance, Buts and Jegers (2013) find a significant and positive impact of investment subsidies on the firm's market shares.[148] To the extent that the aid beneficiary is a dominant firm already pre-aid, its position is further strengthened.

A further concern is that specifically large firms do hold a strong bargaining position vis-à-vis regional governments and can extract a large fraction of social benefits which are conditional on its location decision. While this may be considered harmful in itself, it might raise additional concern if the aid beneficiary is a firm with significant market power in its product markets: the additional financial advantage related to rent extraction from local governments gives the beneficiary an extra profit which may be used to further strengthen its market position.

By contrast, market power, be it as a "screen" for detecting possible competition concerns in the field of regional aid (cf. the approach in paragraph 68 of RAG 2006) or more in general as a central assessment criterion, can be criticised, though. One of the main concerns in the context of state aid control is about the strong bargaining position of firms vis-à-vis local, regional or even national governments. Such a bargaining position may allow firms to extract windfall profits from weak governments. A strong bargaining position vis-à-vis a regional government and a strong market position in a firm's product markets is not the same, though, and often does not coincide. For instance, in case negotiations break down with the candidate firm, the next best investment alternative a region could attract might be a large firm active in a different industry, e.g. a region may offer a specific localization package to a larger autoparts producers or, alternatively, to an producers of electronic household devices. Both may offer a comparable number of new jobs to a region and may guarantee comparable technological spillovers and local knowledge creation. Hence, the market position of the

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146 Other unwanted side effects may also occur, for instance, collusion.

147 R&R aid is often considered a form of insurance against bankruptcy triggering moral hazard problems of the management, e.g. Nitsche, R. and P. Heidhues (2006). A related but different effect is that State aid can increase incentives to collude. Bertsch/ Calcagno/ Le Quement (2015).

148 The authors assess the impact of fixed assets subsidies on 13 000 Belgian firms. Based on some simplifying assumptions the authors estimate that a subsidy of 10 million € to an average sized firm translates into 7.7% relative increase in market share over a two year period, e.g. a firm holding a market share of 2.6% could increase its market position to 2.8%. Buts and Jegers (2013), p.95.

aid beneficiary in his products markets does not per se correlate with a strong bargaining position in relation to local governments. This also explains why the market share and capacity criteria as filters for triggering the in-depth assessment of regional aid cases have been dropped in the latest RAG (see also Section 4).

A more convincing and central role of the market power criteria can be found in situations of a (protectionist) "national champions" policy played by one Member State: for instance in infrastructure based industries the geographic markets are often still national, firms are often former State companies and, hence, are 'close' to the State; those firms control a large fraction of the national work force. Regional aid directed to such firms are rightly viewed more critically under the market power criterion.

More in general, market power as leading criterion for a State aid assessment is troubled by practical shortcomings: Market definition, which is a prerequisite of market power analysis, is not carried out as rigorously in State aid control as in other fields of competition law enforcement. State aid typically affects more markets, requires a stronger supply-side perspective[149] and has to rely on weaker data due to the limited experience of the Commission in using investigative tools (that have only recently been made available to it, and only in the second phase of the investigation, once the procedure has been opened) and the (political) difficulty to rely on requests for information to third parties during the first phase of the investigation. In fact, the problems to get robust estimates of market share were another important reason for the Commission to drop the market share (and capacity) criteria as filters for in-depth analysis.[150]

3.3.3. Large firms vs. small firms

Since the second modernisation wave associated with the State Aid Action Plan (2006), the Commission's approach has become increasingly sceptical against regional aid to large firms (i.e. non-SME firms), allowing substantially lower aid levels than previously the case for these firms.

The relevance of large companies in a cluster differs from that of small or medium-sized companies. Large companies are to a lesser extent affected by regional externalities. Large companies can, for instance, exploit knowledge spill-overs within the boundaries of their firm.[151] Large firms can also pull employees into a peripheral region and attract complementary services. Accordingly, in the context of cluster formation, investment aid plays a significantly different role when granted to large firms than small firms. Aid to large firms is granted to incentivise them to locate in regions with the highest gap between private and social benefits and thereby to induce further investment by other firms. In contrast, aid to small and medium-sized firms is granted to overcome local market failures and thereby facilitate additional investment by those firms themselves.

Besides those conceptual arguments, the strict approach towards large firms is based at least partially on the (admittedly, limited number of) empirical papers available on that question.

The literature can be divided in two groups. One group of papers analyse the impact of selective investment aid granted within well-defined investment schemes, like Law 488/92 in Italy (Bondinio and

[149] See also Commission Notice on the definition of the Relevant Market for the purposes of Community competition law Official Journal C 372, 09.12.1997, p. 5, point 1 ("The focus of assessment in State aid cases is the aid recipient and the industry/sector concerned rather than identification of competitive constraints faced by the aid recipient.")
[150] Friederiszick and Tosini (2013).
[151] In fact this is one factor determining the optimal size of a firm.

Martini, 2012), the Regional Selective Assistance programme in UK (Criscuolo et al., 2012) [152] or the Flemish business support scheme (Decramer, 2014).[153] Within those programmes the author assess whether programme participation has had a larger impact for larger firms than for smaller firms.

Another group of papers focus on investment aid given to large firms on an ad hoc basis. Here the focus is on understanding of whether the attraction of a large firm has had a positive, causal impact on the investment winning region (Greenstone et al., 2010,[154]and Jofre-Monseny et al., 2015[155]). We will briefly summarise those papers in the following.

Bondonio and Martini (2012) measure the impact of investment subsidies (Law 488/92) in Italy.[156] Applying counterfactual evaluation methods, the authors find a positive impact on investment, sales and employment of the affected firms.[157] The authors also test for firm size effects, and find a comparable effectiveness for firms with up to 250 employees, but no statistically significant effects for larger firms. The reasons for the lower effectiveness for large firms are not further explored by the authors.

Criscuolo et al. (2012) analyse the effectiveness of the major UK programme to support manufacturing jobs (RSA, Regional Selective Assistance). The authors find a statistically and economically significant effect of programme participation on investment levels and the number of employees of smaller firms (<150 employees). For larger firms they do not find such a causal relationship, however. The authors suggest that this finding may be the result of larger firms being more able to "game" the system and take the subsidy without changing their investment and employment levels and levels, as well as larger firms being less exposed to problems of access to finance than SMEs. As such, this would confirm the need for an in-depth scrutiny of aid to large firms to avoid windfall profits.[158] The effect on investment

[152] Criscuolo/ Martin/ Overman/Van Reenen (2012). Their analysis is based on data covering the years from 1986 to 2004, exploiting plant level data.
[153] Decramer (2014).
[154] Greenstone/ Hornbeck/ Moretti (2010).
[155] Jofre-Monseny/ Sánchez-Vidal/ Viladecans-Marsal (2015).
[156] In line with the methodology paper of DG COMP the authors apply counterfactual analysis (propensity score, regression discontinuity design). The authors analyse the impact of the Italian industrial support programmes on a national and regional level. On a national level they analyse the impact of Law 488/92 across Italy for aid awards during the period 2000–2004. The aid was distributed in the form of non-repayable grants. On a regional level they analyse the impact of an SME focussed programme in the region of Piemonte. The aid was awarded in 2005 to 2009 and was structured as repayable subsidies. In broad terms, the authors find a positive impact on investment, sales and employment of the affected firms with a higher cost effectiveness of the regional aid scheme in Piemonte. Part of this difference seems to be driven by the different aid instruments – simple grants by the regional scheme are less effective than aid, granted under the same scheme, distributed as a soft loan or interest subsidy. As the national programme only offers grants this may explain to some extent its lower effectiveness. The authors can test for a firm size effects only within the national programme.
[157] Bronzini and de Blasio (2006) conclude more sceptical on the effectiveness of aid granted under Law 488/92 though. The authors find indications of firms strategically pulling forward investments which they would have done in any case and crowded out non-subsidized firms. Their analysis relied however on aid granted during the years 1997 to 2000, i.e. a much earlier period than Bondonio and Martini (2012).
[158] This result is in contrast to the findings by Alecke et al. (2010). In their study, the authors analyse the impact of investment aid granted under cohesion policy programmes 2000–2006 financed by the European Regional Development Fund (ERDF) schemes in Eastern Germany. Applying a counterfactual analysis, they find that investment aid has a significant positive effect on investment per employee and investment as a % of sales. They also find a positive (but smaller) impact on employment. The study is of interest as it offers a comparison of results based on different counterfactual analyses (both methods which do not control for endogeneity and methods which do) and finds robust results across all different methods. While Alecke et al. (2010) only specifically analyse the different effects for larger and smaller firms using methods which do not control for endogeneity (and find no significant difference in the effectiveness of the aid), the lack of endogeneity suggested by the more general model (across all firm sizes) might indicate no strategic behaviour by the aid beneficiaries, as was found by Criscuolo et al. (2012) for large firms.

and labour for small firms is identifiable at firm level, but also at regional level. This indicates that the programme partially induced the growth of existing firms and partially the entry (or reduced exit) of new firms. The authors, by contrast, do not find an increase in productivity of the aid beneficiaries. The high effectiveness with respect to new jobs, accompanied by the missing effect on productivity underpins the trade-off between equity and efficiency: spending money on other, productivity increasing measures might have contributed more to UK growth.

Decramer (2014) conducted an ex post evaluation of a Flemish business support scheme. Comparable to the Italian investment scheme (Law 488/92) the Flemish investment aid scheme selected aid beneficiaries (SMEs) based a scoring approach. Applying counterfactual evaluation methods, Decramer finds a positive effect on investment, employment and productivity for small firms only (with fewer than 20-30 employees), for midsized firms he can identify only an impact of aid on profits. Potential reasons for the ineffectiveness he sees in the low aid amount (aid intensity typically around 10%) in combination with the selection criteria: specifically SMEs with high cash flows and internal funding were selected, questioning their need for additional funding.

In contrast to the three studies mentioned above, Greenstone et al. (2010) focus on 47 individual plant openings in the US (so called "Million Dollar Plants") for which the location decision was accompanied by large aid amounts. The dates of the plant openings range from the early 1980s to the early 1990s. The authors estimate the impact of a new large plant establishment, attracted by state subsidies, on incumbent firms' productivity. To identify the causal impact of plant opening incumbent's productivity change before and after opening is compared with productivity changes of firms active in the "loosing" regions, i.e. the second or third best location alternative to the region chosen. The authors find a significant positive impact.[159] The total factor productivity of incumbent firms increased by around 12% five years after entry. For incumbent firms active in the same industry as the entrant, the effects were even found to be higher.

Jofre-Monseny et al. (2015) also focus on individual plants. Their study analyses the impact of closure decisions on local employment. For that purpose a dataset of 45 large plant closures in Spain during the time period 2001 to 2006 is built. The motives for plant closure are international relocation, with most of the plants analysed being re-opened in China or Eastern Europe. As in Greenstone et al (2010) the causal impact of plant closure is identified by comparing employment in the affected region before and after closure to employment changes in comparable regions without plant closure (comparable with respect to pre-closure employment rate and trends). The authors find that the direct job loss, i.e. the employees laid off by the closing plant, overestimate the total regional job loss significantly. Only around 30% to 60% of the direct job losses translate into regional increase in unemployment. In fact the authors find that incumbent firms expanded its activity in response to the plant closure and partially absorbed the available workforce.[160] While this result puts a question mark on the stated job loss numbers put forward to justify State aid for keeping a plant at a location the paper provides evidence for agglomeration effects working within local job markets, supporting the importance of large firm investment to tip off regional development.

[159] Underlying the analysis are 47 plant openings with time series information of firms operating in the winning region before and after entry. Based on information on which region was the "losing" region, that is, the regions which also bid for plant opening but came only second or third in the entrant's internal rankings, the authors can control for unobserved regional heterogeneity.

[160] The authors rightly point out to the fact that the time period of 2001 to 2006 was one of exceptional growth in Spain and that incidence on plant closure cannot be easily translated into expected effects on plant opening.

Overall, large firms seem less affected by local market failures from a theoretical perspective. This might indeed mandate a stricter approach towards aid to larger firms. Still, aid to large firms can be justified because, if decisive, they can initiate a regional growth process and increase local productivity. The incentive effect, a long-term commitment to the region, the absence of anti-cohesion effects (aid at the expense of poorer regions) and other potential negative 'side effects' (such as rent seeking behaviour) are central concerns when aid is given to large firms. For larger aid schemes, which often focus on small and medium sized firms specifically, a more central question is the overall effectiveness of the aid. The few empirical studies available at this stage point towards positive effects for jobs and short term growth, however, potentially coming at the cost of distorted incentives to strive for productivity.

3.3.4. Overview of regional aid cases, specifically of large investment projects

According to the State aid registry, between 1 January 2007 and 1 July 2014, there were 49 Large Investment Projects (LIPs; projects with eligible cost above EUR 50 million).[161]

Among these 49 LIPs, in 15 cases (or 31%) a formal investigation was opened;[162] 13 of those cases have been concluded with a final decision or withdrawal of the notification. Two of those cases are still pending.[163]

Of those 13 concluded cases in formal investigation, for six cases the parties withdrew notification after opening of the formal investigation and in two cases the aid was prohibited (at least partially). Counting withdrawal decisions as prohibitions, in 62% of the cases under formal investigation the aid measure was prohibited. In relation to all LIP cases this translates into a prohibition rate of 16%.

Table 1 reports average characteristics for the cases for which the formal investigation was opened and other LIPs, as well as for all LIP projects. One observes an average aid amount of 50.3 million € (Cash Grant Equivalent) and an average aid intensity of 14.35%. Most of the regional aid to Large Investment Projects is granted under Article 107 (3)(a); the aid ceiling is binding in over half of all cases and the amount of aid with respect to jobs created lies at 140,000 € per expected job. A Phase 1 decision takes on average 9 months; a final phase 2 decision 28 months. Most cases are related to the automotive industry (17 out of 49 cases), the majority of which are also scrutinized within a formal investigation (10 out of 17 cases).

Table 1: Descriptive statistics for Large Investment Projects notified between 1 January 2007 and 1 July 2014

Statistic	Formal investigation opened	Formal investigation not opened	Overall
Average size of investment (million)	€ 461.67	€ 353.72	**€ 386.77**
Average size of aid (million)	€ 53.67	€ 48.82	**€ 50.30**
Average aid intensity	13.95%	14.52%	**14.35%**
Percentage of Art. 107(3)(a) regions	73.33%	81.82%	**79.17%**
Average number of new direct and indirect jobs created	907	660	**740**
Average aid per job created (€)	170 k	130 k	**140 k**
Percentage of cases in which the aid intensity ceiling is reached	61.5%	50.0%	**53.2%**

[161] See also European Commission, Impact Assessment Report accompanying the Guidelines on regional State aid for 2014 – 2020, SWD (2013) 215 (available at http://ec.europa.eu/competition/state_aid/modernisation/index_en.html). An overview of LIP cases for the period from end of 2003 to July 2007 is provided by F. Wishlade (2008), The Control of Regional Aid to Large Investment Projects: Workable Compromise or Arbitrary Constraint? EStAL 3, 495-506. A first comparison of core statistics of LIP cases identified by the economic screens is provided by Friederiszick and Tosini (2013).

[162] Propapier (C-30/2010), Deutsche Solar AG (C-34/2008), Fri-el Acerra s.r.l. (C-8/2009), Dell Poland (C-46/2008), Petrogal (C-34/2009), BMW Leipzig (SA.32009), Audi Hungaria Motor (C-31/2009), Fiat Powertrain Technologies PL (SA.30340), VW Sachsen (SA.32169), Linamar Powertrain (SA.33152), Revoz (SA.33707), Porsche Leipzig (SA. 34118), Ford Espana (SA.34998), Audi Hungaria Motor (SA.36754), Volkswagen Portugal (SA.38831).

[163] Audi Hungaria Motor (SA.36754) and Volkswagen Portugal (SA.38831).

Statistic	Formal investigation opened	Formal investigation not opened	Overall
Duration (in months) from notification to Phase 1 decision	9.9 (14.2)*	9.0	**9.3 (10.6)***
Duration (in months) from notification to Phase 2 decision	28.1 (32.9)*	-	-
Most frequent industries	C.29 - Manufacture of motor vehicles, trailers and semi-trailers (10 out of 15 cases)	C.27 - Manufacture of computer, electronic and optical products (9 out of 33 cases), followed by C29 – Manufacture of motor vehicles, trailers and semi-trailers (7 cases)	

Source: Authors' review of EUROPA's competition case repository. When we calculate the average number of jobs created and the average aid effectiveness, we do not include the cases in which the investment will only lead to the maintenance of existing jobs. *Does not include the Propapier case which has been challenged in court with a total duration of 90 months (7.5 years). Durations including the Propapier case provided in parentheses.

A few points are worth mentioning.

First, by far the largest absolute amount of aid is granted by Germany (more than € 1 billion in cash grant equivalent); Germany accounts for 20 of the 49 LIP cases. Hungary, Italy, Poland and Portugal are the countries with the next highest absolute amounts per country, having spent between € 150 and 300 million each over the same period, spread over two to five cases. Taking into account the GDP of the different countries, one finds that LIP aid expressed as a % of GDP is roughly the same in Germany as in those four countries, even if Hungary and Portugal spend more than Germany and Italy and Poland less.[164]

Second, most of regional aid is not granted for Large Investment Projects. Taking again the example of Germany one finds that Germany spent - according to the State Aid Scoreboard - around € 16 billion of aid for regional objectives over the period 2008 to 2013.[165] Comparing this to the absolute amount of € 1 billion spent for LIPs (aid measures notified between 2007 to mid2014), it appears that not more than around 6% of all regional aid goes to large investment projects.

Finally, comparing the average aid per job created (expected direct and indirect jobs) one finds a slightly lower aid amount per new job for those cases for which no formal investigation was opened than for cases for which a formal investigation was opened. Calculating the aid per job created for all cases which were approved (121 000€ per job) and comparing them to those being prohibited or withdrawn

[164] The exact values are as follows: Germany: LIP aid 1.032 Mill.€ and 2.47 Bn GDP 2010, Hungary: LIP aid 285 Mill.€ and 0.16 Bn GDP, Italy: LIP aid 258 Mill.€ and 1.57 Bn GDP, Poland: LIP aid 227 Mill.€ and 0.60 Bn GDP and Portugal: LIP aid 157 Mill.€ and 0.22 Bn GDP. All GDP figures for 2010 in Purchasing Power Standard (PPS) according to Eurostat.

[165] Overview of State aid expenditure by category of aid (total aid by category of aid, in 2013 prices, 2008-2013) accessed at http://ec.europa.eu/competition/state_aid/scoreboard/non_crisis_en.html#overview , accessed at 27.7.2015

(239 000€ per job), the difference becomes even larger, i.e. the aid per new job is for approved cases about half that of the prohibited or withdrawn cases.

3.3.5. An illustration: Dell Poland (2009) and subsequent cases

In order to provide an illustration of how the Commission has assessed individual LIP cases, it is worth considering the Dell Poland case of 2009.[166] While interesting in its own right it is also indicative of some shortcomings of the former RAG that the Commission has tried to address when adopting the RAG 2014-2020.

The aid beneficiary was Dell Poland, a subsidiary of the globally operating Dell Inc. In 2009, Dell Poland opened a production plant in Łódź, a city in Poland which is part of the Lodz Special Economic Zone (SEZ). The region of Łódź (Łódźkie) was (and still is) a region eligible for regional aid under Article 107(3)(a) TFEU, with a standard regional aid ceiling for large enterprises of 50% gross grant equivalent, according to the Polish regional aid map for the period 2007–2013. The investment project consisted of the setting-up of a new plant for the manufacturing of personal computers, including desktops, notebooks and servers. Work on the project started in 2007 and was completed in 2012. The project was expected to create approximately 1,200 direct jobs, with a possible increase to 3,000 jobs. The investment comprised a total eligible expenditure of around € 190 million in net present value. The aid amounted to € 54.5 million in nominal value, corresponding to an aid intensity in present value of 27.81% gross grant equivalent.

Dell Poland committed to maintain the manufacturing facilities at the site for a minimum of five years after the completion of the investment. It was also agreed that the jobs created through the investment would be maintained for a minimum period of three years from the date the post was first filled.

In order to assess whether the market share and capacity criteria were met, a detailed market definition exercise was carried out.[167] Market definition was especially crucial for servers. Here, Dell would have an above 25% market share if one delineated a specific market for x86/non-x86 product market. In the product market for x86 servers, Dell's market share exceeded this threshold if one assumed a global market for those servers. Due to this, and most likely also due to the relocation concerns raised (see discussion below), the Commission opened a formal investigation of the measure. The measure was contested by two complainants, namely competitor Hewlett-Packard and an anonymous competitor.

Within the in-depth assessment the Commission first assessed the positive effects of the aid. Regarding the objective of the aid, the Commission accepted the long-term character of the investment projects, both based on the 3 to 5 years contractual commitments and the "pull factor" of Dell Poland for the region which was expected to trigger regional development on a sustainable basis.[168]

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[166] Commission Decision of 23.09.2009 in Case C46/2008 LIP Poland - Aid to Dell Poland, OJ L 29/8, 02.02.2010. See also discussion of the case in Thomas (2011, pp.137).

[167] Supply-side substitutability is in non-State aid competition cases only taken into account during the competitive assessment. In State aid control it is typically argued that supply-side considerations are more important and direct and should therefore be taken into account already during market definition.

[168] Clustering effects which would attract firms from the same or similar industries were considered plausible; cooperation between Dell and local universities was considered positive factor; a transfer of knowledge was considered plausible given that the plant in Poland would be one of the most advanced in the world. The precedent of Dell's facility in Limerick (in Ireland, where Dell had invested in the past) was considered a positive example of the likely appearance of such effects. A multiplier effect was considered plausible based on a study carried out by Dell for the US for the years 2003/4, finding a doubling of payroll spending (above Dell's own payroll spending in that region) in the broader region as plausible.

Regarding the incentive effect, the Commission considered scenario 2 (location decision) to apply, as Dell had decided to build a new plant in any case (independently from the aid), the only remaining question was at what location. According to the Decision, Dell Poland had preselected two regions from a broader set of candidate regions, Łódź and Nitra (in Slovakia), and compared the cost differences of the two locations. An internal study was carried out in 2006 for this purpose and identified a cost disadvantage (in NPV terms) of the region of Łódź of around € 40 million.[169] This calculated cost disadvantage was matched (in NPV terms) by the aid granted by the Polish authorities.[170] Based on this evidence, the Commission considered the aid to have an incentive effect, in the sense that it was considered likely that Dell Poland would have invested in another region, namely Nitra, in the absence of the aid. Given that the aid granted did not compensate for more than the cost differential between the two locations the aid was also deemed proportional.

Regarding the possible distortions of competition, the Commission rejected claims of increased market power as the capacity would have been built in any case, and therefore no strengthening of Dell's market position could be plausibly expected. The potential crowding out of private investment was discarded by the same reasoning.

Regarding negative effects on trade, a first important question was whether the aid did not merely serve to relocate productive assets from Limerick (Ireland), the main existing production location of Dell in the Union at the time. In this regard, the Commission found that the decisions taken by Dell to locate its new manufacturing plant in Łódź and to reduce production at its existing manufacturing plant in Limerick were independent. In particular, it occurred that even without aid Dell would have opted to increase capacity in Central-Eastern Europe, the only question was in which location exactly.[171]

As indicated, the aid provided an incentive for Dell to locate its manufacturing plant in Łódź. Arguably, Nitra (the alternative location) lost out on the investment opportunity. The Commission thus faced a delicate decision: does it make sense to allow a Member State to spend 54.5€ million to attract an investment away from a neighbouring area, which is equally an assisted (i.e. disadvantaged) region? In accordance with paragraph 53 of the guidance notice on the in-depth assessment of LIPs, if it were the case that without aid the investment would have located to a poorer region (more regional handicaps – higher maximum regional aid intensity) or to a region considered to have the same regional handicaps as the target region (same maximum regional aid intensity), this would constitute a negative element in the overall balancing test, unlikely to be compensated by any positive elements because it would run counter the very rationale of regional aid. The maximum aid intensity applicable in Nitra was 40 per cent GGE, whereas it was 50 per cent GGE in the Łódzkie region. The Łódzkie region was therefore considered to be a more disadvantaged region than Nitra. According to the Commission, this implied that, a priori, the benefits in terms of EU cohesion of attracting the investment to the Łódzkie region were to be considered greater than the negative effects associated with the investment not going to

[169] Figure resulting from a (slightly more refined) NPV calculation by a consultant based on data provided by the company. One probably can assume, however, that it was grossly in line with the number reported in the 2006 company document.
[170] The total aid amount of € 54.5 million (in nominal terms) amounted to approx. € 39 million in NPV terms.
[171] The Commission strongly relied on the argument that the commitment for a new plant was taken before the economic case for considering closure of the Irish plant become relevant. One may argue though that the exit decision, which plant to close – the existing one in Ireland or the still to be built one in Eastern Europe – was influenced by the State aid. Hence, the decisions were economically not independent.

Nitra, even if the Commission took care to also compare some other socio-economic elements of the two regions.[172]

The Dell Poland case was one of the first cases where the Commission undertook an in-depth assessment of a regional aid case. Since then, the same type of analysis has been applied in quite a large number of regional aid cases subject to in-depth assessment. Mainly in the car sector, the Commission has expressed doubts as regards the compatibility of proposed aid measures with the State aid rules, and the Member States subsequently withdrew the State aid notification.[173] In part, those doubts related to whether or not the aid had an incentive effect in the first place, in part to the question of the counterfactual: *even if* the aid had an incentive effect, which was the 'direction' of the change in location? The latter question is important to verify whether the aid did not affect other regions with a similar or worse socio-economic situation that might have attracted the investment if the aid had not been offered by the region in question.[174]

A final case worth mentioning specifically is the Propapier case of 2007, which gave rise to the judgment of the Court in *Smurfit Kappa* (2012).[175] In this judgment, the General Court ruled against the Commission for having refused to examine carefully all the concerns raised as to the compatibility of the aid with the common market merely because the market screens had not been exceeded.[176] The judgement clarifies that the approval of an aid measure by the Commission cannot – in the sphere within the meaning of Article 107(3)(a) TFEU – be justified based on an assessment of the market share and capacity increase criteria only, but requires a broader balancing of positive and negative effects of the aid. Due to this judgement, the market share and capacity screens of paragraph 68 of the RAG 2006 have lost their role as a safe harbour region; they have accordingly been dropped under the new Guidelines.

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172 Beyond the difference in the level of regional handicaps, there were several other indicators that the aid measure was likely to improve the level of cohesion in the Union. For instance, while GDP per capita levels had increased in both Západné Slovensko (the region in which Nitra was located) and Łódzkie since 2002, the growth has been considerably higher in the former. Moreover, in 2006, the unemployment rate in Západné Slovensko was 9.19 per cent, compared to 17.48 per cent in Łódzkie, which indicated better conditions of the labour market in Západné Slovensko. Further insights were obtained from statistics regarding migration rates, which can be viewed as an indicator of regional development as they relate to the opportunities that a region can offer to its inhabitants. Migration rates showed a net inflow into Slovakia, whereas Poland had experienced a net outflow in recent years.

173 See http://europa.eu/rapid/press-release_IP-14-792_en.htm. The cases involved regional investment aid for Audi in Hungary (Case C31/2009 – Hungary – Aid to Audi Hungaria Motor Ltd); for Volkswagen in Germany (Case SA.32169 – Germany – Aid to Volkswagen Sachsen GmbH); for car parts supplier Linamar in Germany (Case SA.33152 LIP - DE - Linamar Powertrain GmbH), for Fiat in Poland (Case SA.30340 LIP - Fiat Powertrain Technologies PL), for Revoz, a subsidiary of Renault/Nissan, in Slovenia (Case SA.33707 LIP - Regional aid for Revoz d.d.), and for Ford in Spain (Case SA.34998 LIP - Aid for Ford España).

174 See also http://europa.eu/rapid/press-release_IP-14-792_en.htm.

175 Case T-304/08 *Smurfit Kappa*, ECLI:EU:T:2012:351.

176 *Ibid*, paragraphs 82–88.

4. Compatibility of aid under the RAG 2014-2020 and the GBER

When it comes to the compatibility of regional aid,[177] the RAG 2014-2020 must be read in combination with the relevant provisions of the General Block Exemption Regulation (hereafter "GBER"). Indeed, the GBER sets out the conditions under which aid may be exempted from notification and is compatible with the internal market; whereas the RAG (a) provide the rules under which the Commission scrutinises notified regional aid schemes and individual aid subject to notification, and (b) establish the criteria for identifying the areas that fulfil the conditions of Article 107(3)(a) and (c) of the Treaty. The RAG, therefore, only applies to the assessment of notifiable aid projects that are not covered by the GBER.

In spite of the different aims pursued, these two legal instruments share some important provisions (approach using eligible areas, exclusion of aid to large enterprises for greenfield investments in 'c'-areas, maximal aid intensities, etc.). However, as we will see, the RAG is much more burdensome than the GBER for the granting authority, mainly in terms of burden of proof, with the consequence that public authorities - particularly those of Member States with a poor administrative structure and scarce bargaining power - might be tempted to exclusively turn to the GBER when granting regional aid. If this could be seen as a positive outcome from the viewpoint of administrative simplification, it is certainly not the ideal scenario for the effectiveness of regional policy.

4.1. Scope of application

The scope of regional aid covered by the RAG is broader than the scope of regional aid covered by the GBER, as the latter does not apply to a number of categories of regional aid listed in its Article 13[178], which we will refer to below.

The RAG 2014-2020 delimit their scope of application from a sectoral, subjective and objective point of view.

From a sectoral standpoint, the RAG 2014-2020 apply to all sectors of economic activity, apart from fisheries and aquaculture, agriculture (except, as in the past, for processing and marketing of agricultural products into non-agricultural products) and the transport sector, which are subject to special sectoral rules. Shipbuilding is now also covered by the RAG. Whilst the RAG 2014-2020 do not apply to State aid granted to airports or in the energy sector, as these sectors are both covered by separate guidelines, the steel and synthetic fibres sectors are considered not compatible with the internal market, in view of concerns of continued overcapacity in the sector.[179] The same is true when it comes to the GBER, except for the fact that the shipbuilding sector and the coal sector still remain excluded from the

[177] Alternative overviews of the compatibility criteria under the RAG 2014 are provided by R. Ianus, R. (2015), Regional aid. Junginger-Dittel (2014) is focusing on large investment projects.
[178] Article 1, para. 3, letter e) GBER.
[179] RAG 2014–2020, paras 9-11. See also European Commission, Impact Assessment Report accompanying the Guidelines on regional State aid for 2014 – 2020, SWD (2013) 215

GBER[180]. In addition, the GBER does not cover regional aid in the form of schemes which are targeted at a limited number of specific sectors of economic activity.[181]

Aid to two specific sectors may be considered compatible with the internal market under certain conditions.[182] With regard to regional investment aid to broadband networks, specific conditions must be complied with, in addition to the rules laid down in the RAG, to make the approach consistent with that of the Broadband Guidelines.[183] The same conditions apply under the GBER[184]. As regards regional investment aid to research infrastructures, as defined under the Community legal framework for a European Research Infrastructure Consortium[185], besides the compliance with the rules set forth in the RAG, the aid is made conditional on giving transparent and non-discriminatory access to this infrastructure (in line with the R&D&I Framework). This last condition applies also under the GBER[186].

One can regard the above approach to make the rules more coherent and/or to clarify that certain aid is covered (only) by other guidelines as in line with the Commission's push to avoid "forum shopping" by Member States (and/or aid beneficiaries), i.e. attempts to use those Guidelines that are least strict for a given aid purpose. Similarly, regional aid granted under the GBER pursues economic development and cohesion objectives and is therefore subject to different compatibility conditions compared to the aid which favours specific activities (like, for instance, energy generation, distribution and infrastructure). The provision of the GBER on regional aid should therefore not apply to measures excluded from Article 13 of the GBER, which might however be exempted under another section of the regulation, provided they fulfil both general and specific conditions of the GBER.

From a subjective and objective standpoint, the Commission now considers as a general principle that large companies tend to be less affected by regional handicaps than small and medium enterprises (SMEs) when it comes to investing or maintaining economic activity in less developed areas. Accordingly, regional aid to such companies, especially where they merely relate to the expansion of existing activities, are considered unlikely to have an incentive effect. At the same time, in 'c'-areas, even in those cases where there is an incentive effect, the Commission considered it might not be "good aid", as it may in effect draw away investment from the 'a'-areas.[187] As a consequence, and for the first time in the history of the Regional Aid Guidelines, regional aid to large companies in the area of Article 107(3)(c) TFEU is considered not compatible with the internal market, unless it is granted for "initial investments that create new economic activities in these areas, or for the diversification of

180 Article 13, letter a) GBER.

181 Except schemes aimed at tourism activities, broadband infrastructures or processing and marketing of agricultural products, which are never considered to be targeted at specific sectors of economic activity. Article 13, letter b) GBER.

182 *Ibid.*, paras 12-13.

183 This means that (a) aid must be granted only to areas where there is no network of the same category and where none is likely to be developed in the near future; (b) the subsidised network operator offers active and passive wholesale access under fair and non-discriminatory conditions with the possibility of effective and full unbundling; and (c) aid should be allocated on the basis of a competitive selection process in accordance with paragraph 78(c) and (d) of the Broadband Guidelines.

184 Article 14, para. 10 GBER.

185 Council Regulation (EC) No 723/2009 of 25 June 2009 on the Community legal framework for a European Research Infrastructure Consortium (ERIC) [2009] OJ L206/1.

186 Article 14, para. 11 GBER.

187 See European Commission, Impact Assessment Report accompanying the Guidelines on regional State aid for 2014 – 2020, SWD (2013) 215.

existing establishments into new products or new process innovations" and only insofar as the aid does not draw investment away from 'a'-areas.[188]

Coherently, under the GBER, only in the areas of Article 107(3)(a) TFEU regional investment aid may be granted for an initial investment regardless of the size of the beneficiary; whereas, in the areas of Article 107(3)(c) TFEU, aid can be granted to SMEs for any form of initial investment but to large enterprises only for an initial investment in favour of new economic activity in the area concerned. In practice, it would appear that this comes down to greenfield investments. To be noted that, if the investment project cannot be considered as one that is setting up a new establishment, but the project could qualify as a diversification of the existing establishment into a new product, it could nevertheless be compatible with the internal market if it falls under the RAG[189]. The concerns related to the relocation of investments from the 'a'-areas to the 'c'-areas expressed in the RAG are also reflected in the GBER where it excludes from its scope of application individual regional aid to a beneficiary that has closed down the same or a similar activity in the EEA in the two years preceding its application for regional investment aid or which, at the time of the aid application, has concrete plans to close down such an activity within a period of up to two years after the initial investment[190].

As for the 'a'-areas, less developed from a Union perspective, it was still deemed desirable to ensure that investment aid can be granted also to large enterprises (subject to a verification under the RAG, where applicable) to cater for the possibility that the aid does have an effect in some cases.[191]

The approach to operating aid has also been refined[192]. As to regional aid awarded to firms in difficulties, these remain banned, as before, both under the RAG[193] and under the GBER[194]. The *Deggendorf* principle also still applies and, accordingly, companies subject to a recovery order cannot be granted new aid until the illegal and incompatible aid has been recovered by the Member State concerned.[195]

188 RAG 2014-2020, paras 14-15.

189 See point 24 of the practical guide to the GBER, available at : http://ec.europa.eu/competition/state_aid/legislation/practical_guide_gber_en.pdf

190 Article 13, letter d) GBER

191 See European Commission, Impact Assessment Report accompanying the Guidelines on regional State aid for 2014 – 2020, SWD (2013) 215, p. 34. See also V. Verouden and O. Stehmann (2015).

192 Whilst, as under the previous RAGs, operating aid to compensate for additional costs to pursue an economic activity in outermost regions or to prevent or reduce depopulation in very sparsely populated areas was considered compatible with the internal market, this type of aid can now be granted only to SMEs in Article 107(3)(a) TFEU areas. On the contrary, under the GBER this type of aid can still be granted also to large companies and in Article 107(3)(c) TFEU areas, provided that all relevant conditions set forth in Article 15 GBER are fulfilled, but only for regional aid in the form of schemes which compensate the transport costs of goods produced in the outermost regions or in sparsely populated areas. Operating aid is excluded from the GBER altogether when granted in favour of activities in the production, processing and marketing of products listed in Annex I of the TFEU or activities such as agriculture, forestry and fishing, mining and quarrying and electricity, gas, steam and air conditioning supply. Operating aid to companies operating in the financial services sector, or for intra-group activities remains incompatible altogether in the RAG as well as in the GBER.

193 *Ibid.*, para 18 RAG.

194 Article 1, para. 4, letter c) GBER.

195 *Ibid.*, para 19 RAG and Article 13, letters a) and b) GBER.

4.2. Definition of regional aid maps

The RAG 2014-2020 set out the criteria for identifying the areas that comply with the conditions of Article 107(3)(a) and (c) TFEU. On the basis of these criteria, Member States must identify in a regional map and notify to the Commission their 'a' and 'c'-areas, including the maximum aid intensities applicable in those areas. Member States can award regional aid only after the Commission has approved their regional maps and aid schemes (insofar as these are not already covered by the GBER). Coherently, "assisted areas" under the GBER are the areas designated in an approved regional aid map for the period 1.7.2014-31.12.2020 in application of Articles 107(3)(a) and (c) of the Treaty[196] and "sparsely populated areas" are those areas which are recognised by the Commission as such in the individual decisions on regional aid maps for the period 1.7.2014-31.12.2020[197].

As for other parts of the RAG, this is an area where the SAM refined the approach of the Commission or introduced novelties, including a set of adjustments to allow for some degree of flexibility.

From the outset, the overall coverage of the 'a' and 'c'-areas remains below 50% of the population, in coherence with the objectives of regional aid. However, due to the "current difficult economic situation of many Member States",[198] the overall coverage ceiling is set at 47% of the EU-28 population, as compared to the 45.5% applicable under the previous RAG.

The increased overall coverage is complemented by a refined distribution of the aid. In fact, the relatively good economic development of certain assisted regions observed since 2002 (also thanks to the success of the regional aid policy), has caused the coverage of 'a'-areas to drop from about one third to one fourth of the European Union population[199], automatically resulting in 'c'-areas benefitting from additional population coverage (see also the discussion in section […] above).

As before, the identification of specific areas follows automatic or semi-automatic criteria, as before. Article 107(3)(a) TFEU areas concern so-called NUTS 2 regions with GDP per capita below or equal to 75% of the Union's average and outermost regions.[200] As regards Article 107(3)(c) TFEU areas, the RAG 2014-2020 now distinguish "predefined" and "non-predefined areas". The first category includes former NUTS 2 'a'-areas and sparsely populated areas. The total coverage ceiling for non-predefined areas is obtained by subtracting the population of the eligible (a) areas and of the predefined 'c'-areas from the overall coverage ceiling (47% of the EU-28 population). The resulting coverage is allocated among the Member States by applying a formula that now gives more relevance to regional disparities compared to the EU average, instead of intra-national disparities.[201] To adjust this approach, a 'safety net' prevents the reduction of population coverage to Member States struck by the financial crisis and benefiting from financial assistance under EU programmes such as EFSF and ESM, and a special provision guarantees minimum population coverage for certain Member States.[202] Member States

196 Article 2, point 27, GBER.
197 Article 2, point 48, GBER.
198 RAG 2014-2020, para 147.
199 See the European Commission press release IP/13/569 of 19 June 2013, available at http://europa.eu/rapid/press-release_IP-13-569_en.htm.
200 RAG 2014-202, subsection 5.2.
201 *Ibid.*, Section subsection 5.3.2.1. and Annex II. On the same point, see Wishlade, F. (2013)
202 RAG 2014-2020, paras 163-166.

should then concretely select the non-predefined ‘c’-areas on the basis of criteria set out in the RAG 2014-2020 to identify socioeconomic, geographical and structural problems.[203]

Finally, the RAG 2014-2020 also establish a mechanism (the “mid-term review”) to control, in June 2016, whether certain areas could become eligible for regional aid as ‘a’-areas, in order to adjust the percentage of the population allocation for ‘c’-areas.[204]

4.3. Notifiable regional aid

Under Article 108(3) TFEU Member States must in principle notify all regional aid. Whereas the GBER sets out the conditions under which State aid may be exempted from notification and is compatible with the internal market, the RAG 2014-2020 state the rules that the Commission applies to notified regional aid schemes and individual aid. The two acts must therefore be read together in order to identify the notifiable aid projects.

On the one hand, the reviewed GBER exempts more aid categories than in the past, including, among others, transport aid to sparsely populated regions, regional urban development funds and ad-hoc aid to local infrastructures.[205] However, the GBER in principle requires notification for all regional aid schemes where the average annual State aid budget exceeds EUR 150 million, from six months after their entry into force.[206] This notification is focused entirely on the requirement to submit an ex-post evaluation plan; for the remainder, the substantive conditions are exactly the same as for schemes fully falling under the GBER.[207]

On the other hand, Section 2 of the RAG 2014-2020 clarifies that it applies to both notified regional (multi-sectoral) aid schemes and individual aid. In particular, individual aid granted under a notified scheme is also subject to the notification obligation where the amount of aid exceeds the notification thresholds.[208] These thresholds are defined by the RAG 2014-2020 themselves.[209] Individual aid granted under a notified scheme also remains notifiable where it is connected to the closure of a similar activity in the European Economic Area.[210] Finally, investment aid to large firms to diversify an existing establishment in a ‘c’-area into new products is also subject to notification and to the application of the rules of the RAG 2014-2020.[211]

Regional aid is also subject to notification when its amount exceeds the notification thresholds set forth in the GBER. In fact, the GBER does not apply to regional investment aid (individual aid or ad hoc aid) which exceeds the “adjusted aid amount” of aid for an investment with eligible costs of EUR 100 million[212]. In accordance with the mechanism defined in Article 2, point 20, of the GBER, the maximum permissible aid amount for a large investment project with eligible costs of EUR 100 million

[203] *Ibid.*, paras 167-170.
[204] *Ibid.*, Subsection 5.6.2.
[205] GBER 2014, Article 56.
[206] GBER 2014, Article 1(2)(a).
[207] GBER 2014.
[208] RAG 2014-2020, para. 23.
[209] *Ibid.*, para. 20(n).
[210] *Ibid.*, para. 23.
[211] *Ibid.*, para. 24.
[212] Article 4, para. 1, letter a) GBER.

amounts to EUR 75 million multiplied by the maximum aid intensity applicable in the area concerned established in an approved regional map in force on the date of granting the aid (excluding the increased aid intensity for SMEs). Accordingly, in 'a'-areas the notification thresholds for individual regional aid are in the range of EUR 18.75 – 37.5 million per project (they are less high in 'c'-areas). A specific threshold is foreseen for regional urban development aid, which has to be notified if above EUR 20 million.[213] This new and apparently intricate net of exempt vs notifiable aid should guarantee at the same time more flexibility for Member States to spend their resources and a more effective control of distortive measures. In addition to promoting cohesion, this solution aims to improving the allocation of state resources, insofar as the potentially most distortive aid projects will be assessed and authorised, if they have a real incentive effect.

4.4. Compatibility assessment

Building up the historical evolution of regional aid rules, the RAG 2014-2020 state that the Commission assesses the compatibility with the internal market of all notified aid by analysing "*whether the design of the aid ensures that the positive impact of the aid towards an objective of common interest exceeds its potential negative effects on trade and competition*".[214]

As a main novelty, with the SAM having called for common principles applicable to the assessment of compatibility of all the aid measures, the Commission has decided to apply the in-depth assessment criteria applicable to LIPs under the 2009 rules (which only applied to a small subset of notified cases) to all notified aid. This change reflects both the consideration by the Commission that the market share and capacity screens used previously were not efficient[215] to detect the most distortive cases (see section […] above) and the will to give a much larger application than in the past to the in-depth assessment criteria (which had been used only in a handful of cases that far). The change also reflect the findings of the General Court in its 2012 *Smurfit Kappa* judgment, discussed above.[216]

The main features of these criteria are illustrated in the following subsections, with special attention for the novelties.

As a preliminary remark, it is worth noting that the RAG also specify that the general principles of EU law must not be violated as a result of the aid and that the Commission has to take account of any antitrust proceedings if relevant to the compatibility assessment.[217]

Furthermore, the RAG 2014-2020 add an additional criterion to ensure compatibility. In fact, the Commission may subject the final balance between positive and negative effects of a regional aid scheme to an *ex post* evaluation, with the possibility to limit the duration of the scheme up to four years and oblige the Member State concerned to re-notify the scheme. This approach closely resembles the approach taken in GBER, to subject all large schemes to an *ex post* evaluation requirement.

213 Article 4, para. 1, letter b) GBER.
214 *Ibid.* para. 25.
215 See also the comments made by former Chief Economist Kai-Uwe Kühn (2012).
216 Case T-304/08 *Smurfit Kappa*, ECLI:EU:T:2012:351, paragraphs 82–88.
217 *Ibid.*, paras 28 and 29.

4.4.1. Contribution to a common objective

Before describing what it will consider to be a contribution to a common objective, the Commission highlights that the primary objective of regional aid is to reduce the development gap between the different regions in the EU. This statement gives coherence to the competition and cohesion policies, by reviving the original interpretation of regional aid rules and objectives and at the same time including the Europe 2020 strategy as a goal to which regional aid may contribute.[218] Coming to the concrete analysis of this criterion, the Commission sets out different rules for investment aid schemes, individual investment aid and operating aid schemes.

In coherence with the general statement on the objectives of regional state aid, investment aid schemes contribute to the common objectives of the Europe 2020 strategy when they are implemented in accordance with regional development strategies defined within the context of the EU structural funds, the Cohesion Fund and the European Maritime and Fisheries Fund.[219] Out of these cases, Member States can demonstrate the contribution to the regional development objective through impact assessments, experts opinions etc.

As part of a more economic approach towards distortions of competition and trade, the RAG 2014-2020 clarifies that regional aid schemes may be put in place in 'a'-areas to support initial investments of both SMEs and of large companies, whilst schemes in 'c'-areas may only support initial investments of SMEs and "initial investment in favour of new activity" (mostly: greenfield investment) by large companies.[220] As discussed above, this approach follows the Commission's perception that aid to large companies to expand at existing locations often is either not effective or may go at the expense of even poorer areas (i.e. 'a'-areas). A similar approach is followed in GBER. Another novelty is the obligation (better said, the reminder of the obligation) for Member States to comply with EU environmental legislation.[221]

The evaluation of the contribution of notified individual investment aid to regional development is based on several indicators. Interestingly enough, the RAG 2014-2020 focus on social and economic indicators, which can promote – or multiply – the contribution towards the regional development. [222] Thus, these indicators include clustering effect, knowledge spill-overs, cooperation with local high education institutions, among others.

Due to their distortive nature, operating aid schemes[223] are subject to a stricter control. In this case, the general rule is that Member States must demonstrate to have clearly identified in advance the challenges faced by the local population and the companies operating in the areas concerned.

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218 RAG 2014-202, para. 30.
219 *Ibid.*, para. 32.
220 *Ibid.*, para. 34.
221 *Ibid.*, para. 39.
222 *Ibid.*, para. 40(a) to (g).
223 *Ibid.*, subsection 3.2.3.

4.4.2. *Need for State intervention*

The Commission specifies in the RAG that, in principle, in order to assess whether State aid is necessary to achieve the objective of common interest (here: EU cohesion), it is necessary first to diagnose the problem to be addressed. State aid should be targeted towards situations where aid can bring about a material improvement that the market cannot deliver itself. This holds especially in a context of scarce public resources.

While this step appears analytic in nature, the Commission takes a bit of a short-cut. All aid granted for the development of areas included in the regional aid map defined in compliance with the criteria set out in the RAG, can be considered compatible with the internal market.[224] The RAG 2014-2020 basically accepts therefore that aid in these areas may indeed be needed to overcome (local) market failures and promote development and cohesion in the regions concerned.

4.4.3. *Appropriateness of regional aid*

The RAG 2014-2020 list a series of conditions to be complied with for a regional state aid to be compatible in terms of appropriateness. In practice, Member States are required to demonstrate appropriateness of the aid both in terms of choice of policy instrument (by comparing, e.g., infrastructure development against the prospected aid)[225] and of aid instrument (e.g. direct grants, exemptions or reduction in taxes, etc.).[226] In line with the objectives of SAM, the RAG 2014-2020 show a readiness to simplify and streamline matters when it comes to multi-sectoral aid schemes co-financed by the EU operational programmes: in this case, the aid is considered to be an appropriate policy and aid instrument choice by default. One could indeed argue that it makes sense that the Commission does not impose a double layer of scrutiny on its own actions when it comes to the criterion of appropriateness.

In addition, the assessment of appropriateness of the aid instrument may also be based on the results of the *ex post* evaluations set out in the RAG 2014-2020 themselves.

For operating schemes, it is interesting to note that the Commission advocates, under the heading of "appropriateness", the use of fixed budgets: the Commission believes that, in general, calculating the aid amount *ex ante* as a fixed sum covering the expected additional costs over a given period tends to incentivise companies to contain costs and develop their business in a more efficient manner over time[227], compared to a model where firms are compensated for whatever deficit they have incurred. This approach mirrors the approach the Commission has taken in the field of SGEI compensation.[228]

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[224] *Ibid.*, para. 49.
[225] *Ibid.*, subsection 3.4.1.
[226] *Ibid.*, subsection 3.4.2.
[227] *Ibid.*, para 56. The Commission also clarifies, however, that where future costs and revenue developments are surrounded by a high degree of uncertainty and there is a strong asymmetry of information between the aid grantor and the company, the public authority may also wish to adopt compensation models that are not entirely ex ante, but rather a mix of ex ante and ex post (for example, using claw backs such as to allow sharing of unanticipated gains).
[228] Cf. Commissions' Framework for State aid in the form of public service compensation (SGEI Framework) (2011) Official Journal C8, 11.01.2012, p. 15-22. For an elaborate description of the State aid rules applicable to SGEI. See also L. Coppi (2012).

4.4.4. Incentive effect

A key criterion to assess compatibility of a regional state aid project with the internal market is the incentive effect. As defined by the RAG 2014-2020, "*an incentive effect is present when the aid changes the behaviour of an undertaking in a way it engages in additional activity contributing to the development of an area which it would not have engaged in without the aid or would only have engaged in such activity in a restricted or different manner or in another location*".[229]

Under this definition, the existence of incentive effect can be assessed in two different scenarios. In the first scenario, the aid gives an incentive to invest in a specific area where it was not sufficiently profitable for the beneficiary to invest under market terms (so-called 'investment decision'). In the second scenario, the aid incentivizes firms to locate a planned investment in the assisted area, as it compensates for the net disadvantages and costs linked to that location ('location decision').

To alleviate the specific situation of the most disadvantaged areas and to give coherence to the EU action, the RAG 2014-2020 establish an exception to the general rules. Normally speaking, aid to firms for investments they have to make to achieve standards set by Union law (e.g. environmental standards) are not considered to have an incentive effect, given that firms in any event have to comply with the new standards. However, the Commission may consider that regional aid awarded through cohesion policy funds in 'a'-areas to investments necessary to achieve standards set by Union law does have an incentive effect, if without that aid the beneficiary would not make the investment necessary, in order to prevent the closure of existing establishments in the area concerned.[230]

In the case of aid granted under schemes, works under an individual investment may start only after the firm in question has submitted the application form for aid to the authority. Whilst SMEs are merely required to *assert* the existence of an incentive effect (in the sense that in the application for aid to the public authorities they have to state the type and amount of public support they *need*)[231], large companies must also submit documentary evidence; in both cases, the aid granting authorities concerned carry out the concrete assessment of the individual application. Member States must verify that the documentation provided establishes that the aid has an incentive effect.

In the case of notifiable individual investment aid, Member States must provide additional evidence in the case of notifiable individual investment aid, due to their potential higher distortive effects.[232] In the case of an 'investment decision', Member States must provide the Commission with company documents showing that the investment would not be sufficiently profitable without the aid. For 'location decisions', the company documents must demonstrate that a comparison has been made between the costs and benefits of locating the investment in the area concerned instead of elsewhere. The RAG 2014-2020 specify the documents to be provided and the economic methodologies to prove the incentive effect, which are assessed by the Commission. In particular, the profitability of the project should be evaluated by reference to methodologies which are standard practice in the particular industry concerned. For "investment decisions" the profitability of the project is to be compared with the normal rates of return applied by the company in other investment project of a similar kind or with the cost of capital of the company as a whole or with the rates of return commonly observed in the

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[229] *Ibid.*, para. 60.
[230] *Ibid.*, para. 63.
[231] *Ibid.*, ANNEX V (Application form for regional investment aid), questions 3 and 4.
[232] *Ibid.*, subsection 3.5.2.

industry concerned. For "location decisions" the profitability of the project is to be compared with the rate of return that would be obtained in the alternative location.

For aid schemes captured by the GBER, it is sufficient for the beneficiary of an individual aid to submit, before work on the project or activity start, a written application for the aid to the Member State indicating the type and amount of support needed.[233] In addition, the distinction between SMEs and large companies that exists in the RAG cannot be found in the GBER, except for ad hoc aid. For ad hoc aid granted to large enterprises, similarly to the RAG, the GBER provides that Member States, before granting the aid, must verify not only the written application submitted by the beneficiary but also the documentation prepared by the beneficiary, which must prove that the aid will result in a concrete change of the beneficiary's behaviour. Presumably, Member States can apply the methods set out in the RAG for this purpose. In the case of regional investment aid, the beneficiary has to prove that, without the aid, the project would have not been carried out in the area concerned or would not have been sufficiently profitable for the beneficiary in the area concerned.[234] As under the RAG, the profitability of the project should be evaluated by reference to methodologies which are standard practice in the particular industry concerned and is to be compared with normal rates of return applied by the company in other investment project of a similar kind or with the cost of capital of the company as a whole or with the rates of return commonly observed in the industry concerned.[235] In all other cases, the beneficiary has to prove that, thanks to the aid, there is a material increase in the scope of the project/activity or in the total amount spent by the beneficiary on the project/activity or in the speed of completion of the project/activity concerned.[236]

In the RAG, the existence of incentive effect for *operating aid* schemes depends on the demonstration by the Member State concerned that without aid the economic activity in the assisted area would be significantly reduced. Accordingly, the key element Member States need to prove is the peculiar nature of problems in the assisted area, in coherence with the conditions set out for the criterion of a contribution to a common objective. On the contrary, in the GBER, by way of derogation to the abovementioned rules, regional operating aid is always deemed to have an incentive effect if it satisfies the conditions laid down in Article 15 of the GBER.[237]

4.4.5. Proportionality of the aid amount (aid limited to the minimum)

As a general principle, the amount of regional aid must be limited to the minimum needed to induce additional investment or activity in the area concerned. Without entering into the details of the eligible costs to calculate the regional aid,[238] left substantially untouched by the SAM, it is noteworthy to highlight here the refined approach to assess whether the regional aid is limited to the minimum.

Notified individual aid and aid to large companies under notified schemes is limited to the minimum where it complies with the new 'net-extra costs approach'. This approach was already set out in the

[233] Article 6, paragraph 2, GBER.
[234] Article 6, para 3, letter a), GBER.
[235] See point 38 of the practical guide to the GBER, available at :
http://ec.europa.eu/competition/state_aid/legislation/practical_guide_gber_en.pdf
[236] Article 6, para 3, letter b), GBER.
[237] Article 6, para. 5, letter a), GBER.
[238] RAG 2014, para. 20.

2009 Communication on Large Investment Projects ("LIPs")[239], but has now been extended to all notified cases. In practice, the aid amount must correspond to the net extra costs of the investment in the area concerned, compared to the counterfactual scenario in absence of aid, which can either entail a scenario of "no investment" (scenario 1) or one of investment in an alternative location (scenario 2). The next-extra costs approach is capped, for all notified individual aid, to the maximum aid intensities established by the RAG 2014-2020 for each assisted area. The same aid intensities represent, instead, a 'safe harbour' for SMEs applying for aid under a notified scheme. In this case, the aid is always deemed to be limited to the minimum as long as the aid intensity remains below the maximum permissible.[240]

As to the GBER, it merely provides that the aid intensity in gross grant equivalent shall not exceed the maximum aid intensity established in the regional aid map which is in force at the time the aid is granted in the area concerned (or the most favourable amount resulting from the application of the intensity calculated on the basis of investment costs or wage costs, where this is the case)[241].

The maximum aid intensities as such basically reflect the following three criteria[242]:

(a) the socioeconomic situation of the area concerned, as a proxy for the extent to which the area is in need of further development and, potentially, the extent to which it suffers from a handicap in attracting and maintaining economic activity;

(b) the size of the beneficiary, as proxy for the specific difficulties to finance or implement a project in the area; and

(c) the size of the investment project, as indicator for the expected level of distortion of competition and trade.

Accordingly, higher aid intensities (and, potentially, higher resulting distortions of trade and competition) are allowed the less developed the target region is, and if the aid beneficiary is an SME.

In line with the principles of the SAM, the RAG 2014-2020 have reduced the maximum aid intensities compared to the previous RAG, except for the less disadvantaged areas:[243]

Maximum aid intensities in gross grant-equivalent	**Large enterprises**	**Medium-sized enterprises**	**Small enterprises**
'a'-areas whose GDP per capita is ≤ 45% of the EU27 average	50%	60%	70%
'a'-areas whose GDP per capita is ≤ 60%	35% (40% under the	45% (50% under the	55% (60% under the

[239] Communication from the Commission concerning the criteria for an in-depth assessment of regional aid to large investment projects (2009) OJ C223/3. Large Investment Projects are defined as projects for which the eligible costs exceed 50 million euros.
[240] *Ibid.*, paras 81-83.
[241] Article 14, para. 12, GBER.
[242] *Ibid.*, para 84.
[243] *Ibid.*, paras 171-177.

of the EU27 average	previous RAG)	previous RAG)	previous RAG)
'a'-areas whose GDP per capita is ≤ 75% of the EU27 average	25% (30% under the previous RAG)	35% (40% under the previous RAG)	45% (50% under the previous RAG)
The aid intensities here above may be increased by up to 20 percentage points in outermost regions with a GDP per capita ≤ 75 % of the EU-27 average or by up to 10 percentage points in other outermost regions.			
Sparsely populated 'c'-areas/ 'c'-areas sharing a land border with an extra-EEA or EFTA country	15%	25%	35%
Non-predefined 'c'-areas	10%	20%	30%
'c'-areas being former 'a'-areas (only until 31/12/2017)	15%	25%	35%
For SMEs some investment aid is always possible even in non-assisted regions, provided it falls within one of the eligible investment costs listed in Article 17, para. 3, of the GBER, provided that the aid intensity does not exceed 20% for small and 10% for medium sized enterprises.			

To fully understand the new approach, however, one should not forget, as set out in Section [4.1] above, that aid to large companies in 'c'-areas can be considered compatible with the internal market only if it is granted for initial investments that create new economic activities in these areas, or for the diversification of existing establishments into new products or new process innovations.

4.4.6. Avoidance of undue negative effects on competition and trade

The assessment of compatibility of regional aid requires a balancing exercise between negative effects, in terms of distortions of competition and impact on trade between Member States, and positive effects, in terms of contribution of the objective of common interest. This is another area where the RAG 2014-2020 present new or consolidated solutions, based on the practice of the Commission and the case-law of the Court.

In particular, the two market screens previously set in § 68 of the RAG 2007-2013 to trigger the in-depth assessment of the most distortive cases are identified now as one of the main potential distortions to take into account by the Commission in the compatibility assessment for *all* notified regional aid measures. Thus, the RAG 2014-2020 describe product market distortions as the increase of market power and/or the maintenance of overcapacity, which may cause the exit of competitors.

The other main concern that is expressed in the RAG 2014-2020 is that regional aid may also have (negative) location effects, insofar it may attract investment away from other areas, including the assisted ones, with loss of competiveness, jobs and positive externalities.[244]

The RAG 2014-2020 includes some *per se* prohibitions, reviving a practice from the past,[245] where the aid cannot be considered compatible with the internal market because its negative effects manifestly outweigh the positive effects. The Commission specifies that "manifest negative effects" can be expected in the following cases: (a) for 'investment decisions', where the creation of capacity takes place in a market which is in structural decline, (b) for 'location decisions', where the aid attracts investment away from a different assisted region with an equal or higher aid intensity (i.e. a region as underdeveloped as, or even more underdeveloped than, the region in which the aid is given), (c) for all other situations where there is a causal link between the closure, by the aid beneficiary, of an existing same or a similar activity in the EEA, to relocate that activity to the target area (i.e. the aid incentivizes relocation of existing facilities within the EEA borders).[246] These last two provisions in particular seek to limit the risk of subsidy races and opportunistic location decisions with adverse cohesion effects (including relocations) within the EU, an aspect largely left open by the pre-SAM guidelines.[247] Against this list of prohibitions, the RAG 2014-2020 define the criteria applied by the Commission to perform the actual assessment of investment aid schemes, notified individual investment aid and operating aid schemes.[248] Whilst these criteria are largely based on the general description of the negative effects described under the *per se* prohibitions and represent a consolidation of the practice of the Commission, some elements reflect the refined economic approach pursued by the SAM.

To give an example, the assessment of investment aid schemes takes also account of the transfer of disadvantages between areas in the EEA, where aid in a region may lead to loss of economic activities in other areas. To demonstrate that this is not the case, Member States may submit impact assessments and the outcomes of the new *ex post* evaluations carried out for similar schemes.[249]

For the assessment of notified individual investment aid, the RAG 2014-2020 establish a test similar to the economic analysis in antitrust cases, by specifying that "*the Commission will use various criteria to assess these potential distortions, such as market structure of the product concerned, performance of the market (declining or growing market), process for selection of the aid beneficiary, entry and exit barriers, product differentiation*".[250] The attention to a refined economic approach taking into account potential social and economic spillovers also concerns the assessment of (re)location decisions, for which the RAG 2014-2020 state that "*where the alternative location is in the EEA, the Commission is particularly concerned with negative effects linked with the alternative location*".[251]

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[244] *Ibid.*, paras 113-117.
[245] See above the description of the MSF 2002, in Section 2.2.2.
[246] RAG 2014-2020, paras 120-122.
[247] See Merola (2010). Merola, M., Donzelli, S. (2014). One can argue, of course, that the 2009 Communication on the in-depth assessment of LIPs already contained similar elements. However, its application was only limited to a handful of cases.
[248] *Ibid.*, see, respectively, subsections 3.7.3, 3.7.4 and 3.7.5.
[249] *Ibid.*, paras 124-126.
[250] *Ibid.*, para. 130.
[251] *Ibid.*, para. 139.

4.4.7. Transparency

Under the last compatibility criterion, Member States must publish on the internet information on both individual aid granted under notified schemes and *ad hoc* aid.[252] Where the other criteria are directly related with the assessment of the aid measure by the Commission, the obligation of transparency ensures a decentralised control on aid projects at national level. The RAG 2014-2020 list the minimum information sufficient to comply with this criterion: (a) the text of the notified aid scheme and its implementing provisions, (b) the granting authority, (c) the individual beneficiaries, (d) the aid amount per beneficiary, and (e) the aid intensity. This information must be kept accessible to the general public for at least 10 years.

4.4.8. Ex post evaluation; reporting and monitoring

In parallel with the *ex ante* compatibility assessment, and in view of the greater potential impact of large schemes on trade and competition, the RAG 2014-2020 establish that the Commission may require Member States to subject certain schemes to a time limitation and may carry out an *ex post* evaluation.

This evaluation can only concern schemes with large aid budgets, containing new characteristics, or used when significant market, technology or regulatory changes are foreseen. More importantly, the evaluation must be (a) carried out by an expert who is independent from the state aid granting authority, (b) based on a common methodology[253] and (c) made public. Member States must submit their evaluations to the Commission in sufficient time to allow it to consider the application for an extension of the aid scheme and in any case upon expiry of the scheme. As anticipated, here above, the Commission will also use the outcomes of the evaluation of these aid schemes to assess the compatibility of subsequent aid measures with a similar objective.[254] For monitoring purposes, Member States are also required to report to the Commission information on each individual aid exceeding EUR 3 million granted under a scheme, using the form attached to the RAG 2014-2020, to be sent within 20 working days from the day on which the aid is granted.[255]

Finally, block exempted regional state aid is subject to the reporting and monitoring obligations under Articles 11 and 12 of the new GBER.[256]

[252] *Ibid.*, para. 141.
[253] See the Commission Staff Working Document – Common methodology for State aid evaluation, available online at http://ec.europa.eu/competition/state_aid/modernisation/state_aid_evaluation_methodology_en.pdf.
[254] RAG 2014-2020 paras 125, 142-144; see also recital 8 and Article 1(2)(a) of the new GBER.
[255] RAG 2014-2020, para. 193.
[256] GBER, Chapter 2, Art. 11 and 12.

5. Open questions and outlook

When comparing the reform of the RAG with the objectives set in the latest modernisation wave (SAM), they seem to us broadly consistent with each other.

In line with the modernisation objectives, the RAG 2014 attempts to combine and increase: (a) economic analysis, (b) predictability and (c) administrative efficiency. Naturally there are some trade-offs between those different goals, and, while the RAG 2014 attempts to find the right balance between them, it remains to be seen whether in practice those trade-offs are resolved effectively. We will discuss those trade-offs below in more detail.

From a substantive point of view, the Commission has refined (and integrated into the RAG 2014) the compatibility criteria, which were previously only provided for the assessment of the (few) LIPs exceeding the market screens. Specifically, by discarding the market share and capacity screens of the RAG 2006, the Commission has abolished an obstacle for effective scrutiny, and refocused the assessment under RAG on a more holistic catalogue of criteria, with a greater focus on the incentive effect requirement and "anti-cohesion" location effects than was present before. By discarding these screens, also predictability has increased as, despite their rather quantitative character, in practice it was difficult to pre-assess whether the screens were met or not.

From a procedural perspective, the reform marks a significant improvement as well. Most importantly, the formal procedure is not triggered automatically in case market factors exceed quantitative thresholds, i.e. the market screens.

The removal of the market share and capacity screens will have a diverging impact on individual cases though. For cases which would have been considered borderline with respect to the market screens, a parallel increase in the rigour of economic analysis, predictability and administrative efficacy can be expected. For cases which would not have been picked up by the market screens, the extension of the qualitative assessment criteria, including the assessment of the incentive effect, will inevitably increase the administrative burden. This can be justified by a stronger focus of the RAG 2014 on potentially harmful location aid cases, i.e. a better identification of harmful aid measures which were before however declared compatible as they went below the radar. It remains to be seen though, whether this additional "identification power" comes with significantly higher administrative burden to the notifying parties.

More generally, the 2014 RAG also strengthen consistency between national state aid and EU regional aid policy. The RAG 2014 explicitly refer to those policies and presumes the compatibility assessment criteria - "contribution to a common objective", "need for State intervention" and "appropriateness of the aid" - to be fulfilled for projects implemented within cohesion policy programmes.[257] Within that context regional market failure considerations may become more important, as also the EU in its own policy measures refocuses on regional policies with a long-lasting impact and minimal cost with respect to overall competitiveness.[258]

[257] See, respectively, RAG 2014, paras. 32-33, 48 and 52.

[258] McCann (2013, 95 and 109). McCann concludes that „EU Cohesion Policy is now understood as being a policy which invests for development and growth at the local and regional level across a wide range of different activities and places." This stands in contrast to a position which considers it in the first place a redistribution policy.

In terms of administrative simplification and predictability, a significant improvement is achieved through the combination of the 2014 RAG and the GBER, which are now fully coordinated among each other, i.e. uniform basic requirements and criteria but a much lighter burden on Member States and beneficiaries in case of compliance with the GBER thresholds.

The newly introduced requirement of an ex post assessment for aid schemes may have a lasting impact on future regional aid schemes. If implemented comprehensively by Member States, ex post evaluation of aid schemes might help to improve the effectiveness of entire aid schemes and minimize distortions of competition and trade also of broader aid schemes which often escape a rigorous ex ante assessment, but which can have strong budgetary as well as sectorial implications for the European economy. The requirement of a results-oriented approach with well specified *ex ante* objectives and a rigorous empirical *ex post* evaluation thereof is again fully consistent with the Commission's approach with respect to Cohesion policy.[259]

Finally, the RAG 2014 attempts to reduce forum shopping, by aligning the requirements under RAG for specific aid purposes (e.g. broadband, R&D&I infrastructures) to the substantive requirements in the relevant Guidelines, or by simply referring certain types of aid to other guidelines (aid to airports, energy). This is a welcome initiative.

In addition to those trade-offs some questions remain, in our view, still unanswered.

The increased emphasis in the RAG 2014 on the location scenario (scenario 2) offers a simplified economic assessment, in the sense that it considers distortions of competition to be ruled out by definition. Given that the investment in new capacity would have taken place in any case, the economic assessment focuses on the net cost differential between the second best investment region and the chosen region (incentive effect/proportionality), as well on the "direction" of the location change (to see whether it is anti-cohesion or not). While conceptually sound, care should be taken that this may result de facto in a more lenient approach for location scenarios in comparison to investment scenarios. Bringing genuinely new investment to a region without negative externalities to other EU regions, i.e. the investment scenario, seems to us, at this level of abstraction, the preferential investment. Here the Commission must assure in its day-to-day application of the guidelines that de facto no disadvantages for new investments opportunities occur, rather the opposite.

In a similar vein, the RAG is much more burdensome than the GBER for the granting authority, mainly in terms of burden of proof, with the consequence that public authorities - particularly those of Member States with a poor administrative structure and scarce bargaining power - might be tempted to exclusively turn to the GBER when granting regional aid. If this could be seen as a positive outcome from the viewpoint of administrative simplification, it is certainly not the ideal scenario for the effectiveness of regional policy.

In addition, it seems to us that also the interaction between the location and the investment scenario are not fully specified in the Guidelines. Consider a foreign firm which wants to invest in Europe. It first decides whether to enter Europe yes or no. It then considers two alternative locations in Europe. It would have to show that its original decision to enter Europe was already based on some presumption of aid. Otherwise it could only receive aid based on the cost difference between the two

[259] McCann (2013, pp.99).

locations. Again, while conceptually sound, the practical difficulties of making this showing (for firms, for Member States) should not be underestimated.

Furthermore, the role of large firms for regional development seems to us not properly reflected. Winning a multinational firm for investment in Europe and binding it to a second tier location is an important element of inclusive regional growth. It seems to us acceptable that large firms, assuming the aid is indeed necessary to attract them, can appropriate some of the benefits they produce locally. Equally, the business risks associated with a long-term regional commitment specifically for large firms are not properly taken into account: political hold-up problems (firms being confronted with new requirements once they have built capacity in the region concerned) may easily work to the detriment of an investor, specifically in politically instable regions. Upfront payments may be required to allow (efficient) investment by large firms to be carried out.

Finally, it can be questioned whether the GDP parameter to define eligible regions is not a too single dimensional measure and whether it should not be accompanied by additional measures of economic disparity. GDP per capita is not the only indicator of underdevelopment in the context of a refined regional policy. Specifically, it is rather disconnected to the actual handicaps that investors must overcome to locate new projects in the assisted regions (e.g. administrative burden, lack of infrastructure in the region concerned etc.). As such, it is a poor predictor for the need for aid and the effectiveness of aid.

In conclusion, the RAG 2014 attempts to resolve some of the intrinsic trade-offs between a rigorous economic analysis, predictability of the assessment and administrative efficiency. While it remains to be seen whether in practice those trade-offs are resolved effectively, important improvements must be seen in the broadening of the role of the incentive effect (by the disregard of the market share and capacity screens used previously), the more explicit consideration of the negative effects of regional aid (notably in the form anti-cohesion effects) and in the requirement of a rigorous *ex post* assessment of regional aid schemes.

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