

State Aid

Economics Overview

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Copenhagen Economics

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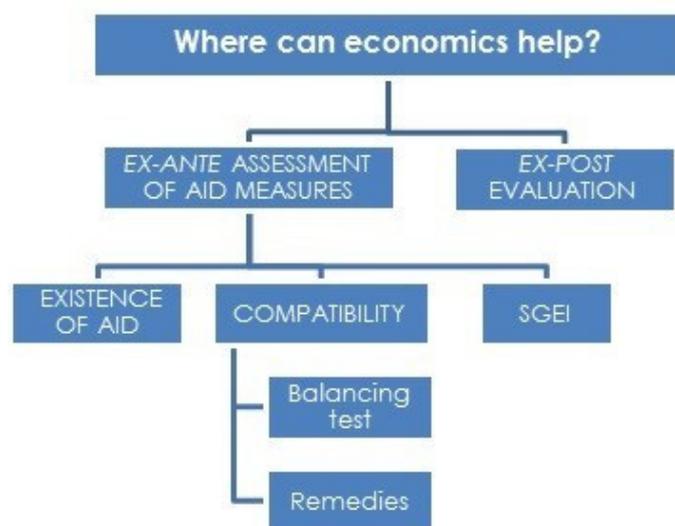
Copenhagen Economics

Guide on the use of economics in state aid

Among all areas of competition policy, state aid control is the branch that witnessed most changes in the past decade. In 2012, the European Commission acknowledged the need for reform by publishing a Communication on EU state aid modernisation.[1] This development was mainly triggered by the economic and political challenges identified by the European Union in its Europe 2020 growth strategy. According to the Commission, “Europe’s growth potential can be increased by better focusing public expenditure [...] In particular, public spending should become more efficient, effective and targeted at growth-promoting policies that fulfil common European objectives.”[2]

The 2012 Communication proposes a plan to achieve its overarching objective. On the one hand, it refers to focusing the enforcement on cases with the biggest impact on the internal market and on the other, to streamlining the rules.

What is the status quo, five years down the line? With a focus on the use of economics in state aid, this article aims at addressing both issues identified in the Communication: the rules and the enforcement. The first part describes the applicable legal framework and explores how the increased use of economic arguments can contribute to enhancing the effectiveness of state aid control. The second part discusses enforcement priorities and recent developments in the field of state aid. We focus most part of the discussion on those issues where economics plays a role, by explaining the main principles as well as by means of case examples.



Part 1: General – the use of economics in state aid

State aid may pursue sound public policy objectives of the member states that could be driven by either efficiency or equity considerations. However, state aid may also have the potential to distort competition and trade. This dual facet of state aid can be clearly identified in the two parts of the article 107 of the Treaty on the Functioning of the European Union (TFEU) – the main provision in the Treaty dealing with state aid and providing the legal framework to the European Commission to exercise its control in this area.

This first paragraph of article 107, by acknowledging the possible negative effects of state aid, states a general prohibition:

*“Any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, insofar as it affects trade between Member States, be **incompatible** with the common market.”*

Hence, a measure is deemed to constitute state aid if it involves state resources, if it confers a selective economic advantage to certain companies and if it has the potential to affect competition and trade.

The second and third paragraphs of article 107, by recognising the potential positive effects of state aid, provide possible derogation from the general prohibition stated in 107(1).[3]

The assessment of state aid cases by the Commission follows the structure of article 107. First, the Commission addresses the issue of the **existence of aid**, as required in 107(1), by checking whether the conditions listed in this paragraph are simultaneously fulfilled. If they are, the public support is considered state aid and the Commission proceeds to verifying whether the aid can be declared **compatible** with the Treaty, as specified in 107(2) and 107(3).

A particular category of state aid is the aid given to those undertakings entrusted with the provision of certain universal public services, such as basic postal, communications or utility services. For the special nature stemming from the social character of this category of aid, the TFEU contains a separate provision to deal with it (ie, article 106). The second paragraph of 106 states the following:

*Undertakings entrusted with the operation of **services of general economic interest** or having the character of a revenue-producing monopoly shall be subject to the rules contained in the Treaties, in particular to the rules on competition, in so far as the application of such rules does not obstruct the performance, in law or in fact, of the particular tasks assigned to them. The development of trade must not be affected to such an extent as would be contrary to the interests of the Union.*

As a general rule, state aid must be notified to and cleared by the Commission before it is granted. However, the **General Block Exemption Regulation (GBER)**[4] exempts aid measures from prior notification if certain conditions are respected. The GBER does not exclude the existence of aid

but, owing to the size or its characteristics, aid is automatically considered compatible. As another milestone of its state aid modernisation initiative, the European Commission has considerably extended the scope of exemptions from prior notification of state aid. The revised GBER enables the Commission to concentrate its scrutiny on the aid measures that are most likely to distort competition in the Single Market, while also conducting improved ex post monitoring of measures benefitting from the exemption. In the context of state aid control that, so far, was based on a system of ex ante scrutiny and compatibility assessment, introducing **ex post evaluation** obligations will ensure a better understanding of the impact and effectiveness of state aid.

The following four subsections discuss in turn the use of economics with respect to, the existence of aid, compatibility of aid, the assessment of services of general economic interest and the ex post evaluation of aid schemes.

Existence of aid

Almost 50 years since the TFEU entered into force and has been implemented consistently in thousands of decisions, the European Commission has released a Communication to further clarify the key concepts relating to the notion of state aid as referred to in article 107(1). The Notice on the notion of state aid^[5] is the last part of the Commission's state aid modernisation initiative launched in 2012. This document provides detailed guidance on when public spending falls within, and outside, the scope of EU state aid control. It does not concern the compatibility of state aid with the internal market pursuant to article 107(2) and (3). The Notice covers all aspects of the definition of state aid, by systematically summarising the case law of EU courts and the Commission's decision-making practice. Out of the four conditions required for the existence of aid (state resources, economic advantage, selectivity and effect on competition and trade), this section focuses on the economic advantage and briefly discusses the other three.

The first condition for the existence of state aid is the involvement of **state resources**. Although it may seem uncontroversial, the public origin of a measure is not always straightforward to determine. This is especially the case when state involvement does not entail aid to a certain beneficiary but is rather limited to redistribution between private entities or obligations imposed on market participants.^[6]

Secondly, in order to be declared aid, a state measure also needs to confer the beneficiary an **economic advantage**. The Commission's decision practice and the Union courts have developed a test to assess the presence of an economic advantage. This is the Market Economy Operator (MEO) Test and, in essence, states the following: economic transactions carried out by public bodies do not confer an advantage on its counterpart, and therefore do not constitute aid, if they are carried out in line with normal market conditions.^[7] Among the four conditions of the paragraph 107(1), the MEO test requires thorough economic and financial analysis besides legal assessment. Hence, given the focus of this article, it will cover most of this section.

It is for the member state to conduct a MEO analysis before making its investment. If the test is fulfilled, the public measure does not need to be notified to the Commission. However, the legal risk remains with the member state. In case of a complaint or an investigation run by the Commission that concludes otherwise, the member state could be required to recover any illegal aid. Therefore, it may be interesting for a member state to notify the measure to the Commission, to obtain the legal certainty of a "no aid" decision.

The decisive element in establishing whether or not an economic transaction is in line with market conditions is whether the public body acted as a market economy operator would have done in a similar situation.^[8] Usually, a prudent market economy operator, would carry out an ex ante assessment^[9] of its strategy, normally by means of a business plan. There are however, at least two particular cases when compliance with market conditions can be established directly, through transaction-specific market information. One case is when the transaction is carried out under the same terms and conditions (and therefore with the same level of risk and rewards) by public bodies and

private operators who are in a comparable situation (a *pari passu* transaction).

[10] Another case is the sale or purchase of assets, goods or services through competitive, transparent, non-discriminatory and unconditional tenders. The Notice on the notion of aid confirms that, if public authorities buy goods or services through tenders that respect EU rules on public procurement, this is in principle sufficient to ensure that the transaction is free of state aid. Both *pari passu* and tenders, by their very nature, are transactions that incorporate market forces which could constitute a reasonable guarantee that the public authority acts as a private operator.

In general, except for the two situations described above, the MEO test entails assessing the business plan and profitability of the proposed investment. There are two generally accepted methodologies to evaluate compliance with market conditions: profitability benchmarking and profitability analysis based on financial models.

One way to establish whether a transaction is in compliance with market conditions is to benchmark it against similar investments carried out by comparable private operators that have taken place in comparable situations of risk and during the same period of time. The benchmarking exercise is often limited by the availability of data and appropriate comparators. In building a sample of comparable private operators, the following trade-off has to be taken into account: an increase in the number of companies included in the sample may increase the accuracy of results but not if this is done at the expense of considering companies that are not close comparators in terms of risk profile and other characteristics. Given the relative precision in comparability of two companies, the benchmarking exercise should provide ranges of plausible values rather than precise references. Furthermore, it can be appropriate to consider measures of central tendency such as the average or the median of the set of comparable transactions or companies.

Another methodology to evaluate the profitability of a transaction is the standard net present value (NPV) calculation. According to basic financial theory, in order to pursue an investment, private investors require that its NPV is positive or, in other words, that the present value of the future stream of cash flows (revenues minus costs) during the life time of the project is higher than the amount invested. In an NPV setting, the indicator measuring the expected profitability of investments is called internal rate of return (IRR), defined as the discount rate for which the NPV equals zero.

Intuitively, when investors envisage a certain project, they look at its expected return, the IRR. In order to take the decision, they compare the IRR of that specific project with the alternatives in the market (ie, the opportunity cost) or the projects they will forgo in order to pursue the project in question. The profitability of those alternatives is measured by the cost of capital, that is, the price investors have to pay if they were to raise that capital in the market. One crucial element investors consider in this comparison is the level of risk, hence they compare the investment they are considering with alternatives of similar risk in the market. If the return they are promised by the IRR figure is higher than the opportunity cost of capital, then private investors undertake the investment. In this case, they would obtain a positive NPV.

This comparison is at the core of the MEO test. The estimation of the opportunity cost of capital is usually one of the most technically challenging elements in this exercise. The two main sources of capital are equity and debt. In assessing what is the cost of capital for an investment bearing a certain level of risk, an investor looks at the expected cost of equity, expected cost of debt and the financing structure of the investment (ie, the relative weights of equity and debt in the total capital). The weighted average cost of capital (WACC) is defined as follows:

$$WACC = K_e \frac{E}{C} + K_d \frac{(1-t)D}{C}$$

where, K_e is the expected cost of equity, E/C – the equity share in total capital, K_d – the expected cost of debt, D/C – the share of debt capital and $(1-t)$ is the tax advantage of debt financing.

Whereas the cost of debt (interest rate) is usually publicly available, the estimation of the cost of equity is more complex. A frequently used method to estimate the expected cost of equity is the Capital Asset Pricing Model (CAPM) developed in financial theory. According to CAPM, the expected cost of equity is:

$$K_e = R_f + M_p \cdot \beta$$

Where, R_f is the risk-free rate, M_p – the market risk premium (ie, the difference between the return on a given portfolio or security and the risk-free rate) and β is a measure of the volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole.

Finding accurate estimates for the parameters presented in these formulae represents the core of the analysis required in an MEO test. This has to be done on a case-by-case basis. Given the forward-looking nature of the WACC in a world of uncertainty as well as the difficulty to quantify a precise level of risk, the values estimated by the member state and the Commission are not absolute. Strength of results can be reinforced by robustness checks and sensitivity analysis.

The third condition of article 107(1) for the existence of state aid, **selectivity**, requires that the advantage must favour “certain undertakings or the production of certain **goods**” (emphasis added). Hence, not all measures that favour economic operators fall under the notion of aid, but only those which grant an advantage in a selective way to certain undertakings or categories of undertakings or to certain economic sectors.[11] Notwithstanding that fact that selectivity has been highly debated and addressed in various court judgments, clear guidance and legal certainty is still lacking. In the second part of this article we will discuss some of the latest developments on the interpretation of selectivity in recent tax cases.

Finally, the two last elements required for the existence of state aid are the **effect** on trade of the measure and its potential to distort competition. EU state aid control focuses on public investments that have effect cross-border. Funding provided to local infrastructures or local services that are unlikely to attract customers from other member states, and which only has a marginal effect on cross-border investment, does not fall under EU state aid rules. As regards **distortions of competition** within the meaning of article 107(1) of the Treaty, it is generally found to exist when the state grants an economic advantage to an undertaking in a liberalised sector where there is, or could be, competition.

The Ciudad de la Luz Decision (2012)

Among the vast MEO-relate case law, a good template for the analysis can be found in Ciudad de la Luz Decision (2012). The case was about a public capital injection in favour of a cinema studio in Spain. The Commission carried out an in-depth economic and financial assessment that highlighted the importance and the difficulty of establishing a proper benchmark. It also provided valuable guidance for estimating the cost of capital and for applying the NPV methodology. The General Court endorsed the Commission Decision, which found that the MEO test was not met, implying that the capital injection was considered to constitute state aid.

For more information about the case, see:

- SA.22668 Ciudad de la Luz studios http://ec.europa.eu/competition/elojade/iseef/case_details.cfm?proc_code=3_C8_2008.
- T-319/12 – Spain v Commission: <http://curia.europa.eu/juris/liste.jsf?num=T-319/12&language=en>.

Claici, A et al (2016), “The Market Economy Investor Principle: Lessons Learned from the Ciudad de la Luz Case”, *Journal of Competition Law and Economics*, 12(1).

Compatibility of aid

Once a public measure is proven to constitute state aid, the Commission balances the positive effects of the aid with the negative ones to establish whether the aid may be declared compatible as stipulated in article 107(2) or (3) of the TFEU. In order to interpret the general provisions in the Treaty, the Commission has published numerous guidelines, both horizontal and sector specific (eg, rescue and restructuring aid, regional aid, R&D&I, environmental and energy aid, risk finance, broadband, aviation, etc).

One proposal and follow-up on State Aid Modernisation process includes the identification of common principles for assessing the compatibility of aid with the internal market, across various guidelines and frameworks. In that context, the Commission has published a paper on Common Principles for an Economic Assessment of the Compatibility of State Aid under article 107(3). [12] The aim of that paper was to provide more details and clarification on the methodology used by the **Commission in balancing the positive and negative effects of state aid**. The general analytical principles are also reflected, with adaptations in the light of the specific policy context, in a number of guidelines for specific aid categories.

The balancing test consists in the following three steps. First, it requires that the aid measures are aimed at a well-defined objective of common interest (positive effect). Member states have to prove that aid is necessary to pursue the identified objective, which can be an efficiency objective or an equity objective. The second issue in the balancing is the design of the aid. The main points of assessment in the aid design are: establishing the incentive effect of the aid (ie, whether the aid changed the behaviour of the recipient in the direction of the stated objective) and evaluating whether the aid measure is proportionate (ie, whether the aid is limited to the minimum necessary or the same objective could have been achieved with less aid). The third step in the balancing test is the assessment of distortions in competition and effect on trade (potential negative effects of the aid). In addition, practice has established that even in the cases where the Commission has evidence that negative effects of state aid outweigh the positive ones, member states may propose remedies to correct the measure such that it becomes compatible. Economic tools may be useful to assess all three steps in the compatibility analysis as well as to shape the measure in order to remedy the potential negative effects. For the rest of this subsection, we will explain each of these elements in turn.

The balancing test

1. On the positive side, first step of the balancing step entails establishing the common interest **objective of the aid** (ie, whether it responds to efficiency or equity considerations). Aid is usually deemed to cover an **efficiency objective** if it has the potential to correct a market failure. Examples of market failures are positive externalities in the case of R&D&I or asymmetries of information in the case of start-up firms that find it difficult to raise financing in the financial markets. The fact that a project has positive effects that are not fully appropriated by the aid beneficiary or it may suffer from coordination or imperfect information problems, does not automatically validate the existence of a market failure. Member states have to demonstrate that the market would not undertake such a project (ie, that the project is not profitable without

aid). This can be done through quantitative or qualitative evidence such as econometric analysis, benchmarks, surveys, studies or internal documents. Establishing a counterfactual (ie, what would happen without the aid) and demonstrating a genuine market failure is often a complex exercise, requiring economic intuition and a good understanding of market conditions. **Equity objectives** (such as cohesion between European regions or employment considerations) are usually set by the EU or the member states. Governments may consider that inequalities stemming from a free market game are unacceptable and may choose to intervene in the redistribution of wealth. Equity considerations may be demonstrated, for example, by statistical indicators illustrating social or regional disparities.

High-speed train test centre in Andalusia (2016)

An interesting case where the Commission has concluded that an aid does not meet a genuine objective of common interest (efficiency objective) is the construction of a high-speed train test centre in Andalusia.

The CEATF is a railway circuit where trains can run at very high speeds (up to 520km/h) with additional installations for testing, approval and tuning of mobile rail equipment, infrastructure and superstructure elements. The Commission's investigation concluded there does not appear to be any interest in the market to develop products that run at such high speeds, because they would not be commercially viable. In the absence of demand for such specific services, the use of the CEATF facility would in practice have been limited to testing trains and equipment up to the commercially viable speeds of 320–350km/h, for which testing centres already exist in the EU. Usually, investigations under the R&D framework reveal significant positive externalities that make this type of aid generally compatible. This decision is unique in this category owing to its lack of a positive objective.

For more information about the case, see:

- SA.37185 Aid to ADIF http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_37185.

2. The second step in the balancing exercise covers the **design of the aid**. Member states need to prove that aid would change their behaviour in the direction of achieving the objective and it is not a simple lump-sum transfer from the state without any real effect (this is called the **incentive effect**). They are also expected to show that aid is **proportional** (ie, is not higher than necessary to achieve the stated objective). Financial evidence, such as profitability calculations for a given project with and without the aid or project finance analysis, including scenario forecasts may constitute relevant pieces of evidence to endorse an appropriate design.

Dell Poland (2009)

An example of a case where, after an in-depth financial analysis, the Commission concluded that the incentive effect and proportionality are fulfilled is Dell Poland. That was a regional aid case responding to an equity objective of European cohesion. Dell was considering building a manufacturing facility in Europe and without aid it would have been more profitable to build it in Slovakia. However, aid offered by the Polish state had the potential to attract Dell to Poland and contribute in this way to the possible decrease in the disadvantage exhibited by the Polish region vis-à-vis its neighbouring regions in Slovakia. Dell conducted an analysis to identify and review the cost factors representing the key differences for assessing the comparative advantages of the two locations. Based on this docu-

ment, the economic consultant of the Polish authorities conducted an analysis of the NPV of the cost differentials between the two locations considered for the project. Considering the counterfactual situation, the consultant's study showed the disadvantages of locating in Poland as opposed to Slovakia. The same study showed also that the proportionality condition of compatibility was met, by indicating that the amount of aid matched the disadvantage of the project financials for the Polish region (ie, the aid was just sufficient to tilt the behaviour of Dell in favour of locating in Poland), responding in this way to the pursued objective of regional cohesion.

For more information about the case, see:

- C46/2008 LIP Poland – Aid to Dell Poland, http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_C46_2008.

3. The third step in the balancing exercise regards the negative side of the aid, namely the **potential to distort competition and trade**. One can distinguish at least three kinds of distortions of competition induced by state aid. First, state aid, by interfering with the allocation of rents through markets, may have long-term dynamic effects on the incentive to invest and compete. Second, at a more specific level, state aids may affect competition in the product market and trigger different responses by competitors depending on the circumstances. Third, state aid may affect competition in the input markets and in particular the location of investment.[13] A thorough analysis of competition distortion would include delineating the market where the beneficiary of the aid is present and establishing the potential harm stemming from the aid. While assessing the effect of an aid on competition the Commission may take into account, among others, the following indicators: aid characteristics (eg, aid amount; beneficiary selection process, duration and repetition of the aid; effect on the beneficiary's costs); structure of affected markets (eg, market concentration, number and size of firms, existence of market power, product differentiation, barriers to entry and exit, dimension of the product and geographic market concerned); industry/market characteristics (eg, markets with overcapacity, inefficiencies at the level of the beneficiary (productivity), importance of innovation, feasibility of moving production facilities).[14]

Airport cases (2014)

In 2014 the Commission took two negative decisions in the aviation sector, regarding Gdynia-Kosakowo airport in Poland and Zweibrücken airport in Germany. The main reason triggering these decisions was the finding of significant distortions in competition vis-à-vis neighbouring airports.

For more information about the case, see:

- SA.35388 Setting up the Gdynia-Kosakowo Airport http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_35388.
- SA.27339 State aid to Zweibrücken Airport: http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_27339.

Remedies

If, following the balancing test, the Commission identifies significant negative elements, such as, for example, distortions in competition or excessive amount of aid, it is possible for member states to propose remedies that might change the measure in order to comply with compatibility criteria. The remedies negotiations between the Commission and member states span over multiple

areas and economic analysis can support the achievement of efficient outcomes, where the potential negative impact of the aid is minimised, without undermining the extent to which the measure can contribute to the stated objective.

Construction of nuclear power plants

In numerous recent cases, after the Commission opened an in-depth investigation signalling concerns, member states offered remedies that enabled the approval of the respective measures. Take, for example, two cases concerning the construction of nuclear power plants (one in the UK and one in Hungary). In the UK, the Commission found the aid to be excessive (ie, the proportionality principle was not met). The UK proposed and the Commission accepted remedies to correct the amount of the aid (including a gain sharing arrangement that would return part of the potential benefits from the measure to taxpayers). In the case of Hungary, the Commission had concerns that the aid would confer excessive market power to the beneficiary the vertically integrated electricity incumbent. A commitment to sell at least 30 per cent of its total electricity output on the open power exchange was considered acceptable by the Commission to remedy these concerns.

For more information about the case, see:

- SA.34847 Support to Hinkley Point C Nuclear Power Station http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_34947.
- SSA.38454 Possible aid to the Paks nuclear power station http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_38454.

Services of general economic interest (SGEI)

In strategic sectors such as postal services, transport, broadband, social services among others, member states can decide on the necessity of universal service availability for its citizens that may not always be delivered profitably by markets. Where markets fail to deliver the socially desirable level of goods or services, public authorities have the choice to subsidise a certain level of universal service. Whereas the definition of the of the universal public service is in general at the discretion of member states, the Commission has to ensure that the compensation received by the universal service provider is not excessive, with a potential negative impact on competition or taxpayers.

In specific circumstances, the compensation for costs incurred to provide a service of general economic interest may not constitute state aid. As explained in Part 1, in order for a state measure to be state aid, it is necessary that a set of simultaneous conditions are fulfilled. One of those conditions was the existence of an economic advantage. In the case of SGEI, the court made clear in the Altmark judgment that, if four conditions^[15] are met, than the existence of an economic advantage is excluded and hence, the SGEI does not constitute state aid, pursuant to article 107(1).

However, if not all Altmark criteria are fulfilled, universal service compensation is considered state aid and is subject to compatibility assessment. To this end, the Commission published a framework for assessing the compatibility of public service compensation^[16] with state aid rules. A core element in the compatibility exercise is the assessment of the amount of compensation, which “must not exceed what is necessary to cover the net cost of discharging the public service obligations, including a reasonable profit”.^[17]

The main methodology proposed by the SGEI framework to calculate the amount of compensation if the Net avoided cost methodology. This is the cost that could have been avoided should the provider not have the obligation to provide the public service, hence requires the construction of a

counterfactual. The amount of compensation is then “the difference between the net cost for the provider of operating with the public service obligation and the net cost or profit for the same provider of operating without that obligation”.^[18]

Although the Commission regards the net avoided cost methodology as the most accurate method for determining the cost of a public service obligation, there may be cases where the use of that methodology is not feasible or appropriate. In such cases, where duly justified, the Commission can accept alternative methods for calculating the net cost necessary to discharge the public service obligations, such as the methodology based on cost allocation. Under this methodology, the net cost is calculated as the difference between the costs and the revenues for a designated provider to fulfil the public service obligation.^[19] On top of the right to compensate the net losses, the public service provider should be allowed to obtain a “reasonable profit”. Ideally, the reasonable profit should be equal to an ex ante measure of the expected profitability that a market operator would require in order to provide that service, taking into account the level of risk (IRR). Where duly justified, profit level indicators other than the rate of return on capital can be used to determine what the reasonable profit should be, such as the average return on equity over the entrustment period, the return on capital employed, the return on assets or the return on sales.^[20]

BPost (2012)

Benchmarking this “reasonable” profit requires knowledge of finance in general and of specific sectors in particular. Among the numerous SGEI cases run by the Commission it is worth mentioning the BPost Decision (2012), where not less than three economic consulting firms provided estimates and benchmark ranges for the reasonable profit. Following an in-depth assessment, the Commission found that the substantial profits made by BPost in activities where it still enjoyed exclusive rights until 2010 led to an overcompensation of the postal incumbent and therefore ordered Belgium to recover €417 million of incompatible aid.

For more information about the case, see:

- SA.14588 Mesures en faveur de La Poste belge, http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_14588.

Ex post evaluation

In line with the goals of the state aid modernisation process, ex post evaluation aims at promoting the self-assessment of state aid and therefore, the focus on more efficient, cheaper and less distortive aid. This initiative constitutes a shift in Commission’s ex ante perspective of approving aid schemes based on expected costs and benefits to an ex post evaluation perspective, with member states having to assess the effect of their own schemes in a rigorous way.

In principle, ex post evaluation covers aid schemes only, and not aid to individual beneficiaries. The categories of aid schemes under an ex post evaluation obligation include: large aid schemes in specific aid categories mentioned in the GBER and also notified aid schemes, as long as they are large, novel or foreseen in specific guidelines.

In order to assist member states to conduct evaluations, the Commission issued a guidance paper that illustrates the different quantitative methods that member states could resort to in order to do a proper ex post assessment of aid measures.^[21]

The overall objective of state aid evaluation is to verify the balance between the positive and negative effects of aid. Evaluation should aim in particular at providing evidence useful in answering questions such as whether the aid changed the behaviour of the beneficiaries, whether the effects dif-

ferred significantly across beneficiaries, whether the scheme led to spillover effects on the activity of other firms or whether the scheme contributed to the desired policy objective. In general, evaluations are greatly facilitated when they are properly anticipated and prepared, in particular as this allows suitable data collection.[22]

The methodological guidance paper describes the most relevant methods for counterfactual impact evaluations. To ensure objective and rigorous evaluation, according to best practice, evaluators should be independent from the granting authority and should be experts with adequate experience in econometric analysis.

A comprehensive list of cases that have been assessed by the Commission can be found at: http://ec.europa.eu/competition/state_aid/overview/transparency_and_evaluation.html

Evaluation plan of UK scheme (2015)

For example, the Commission accepted an evaluation plan of a UK scheme with an annual average budget of €3,600 million, aimed at stimulating economic growth through the support of innovative businesses, in particular SMEs, across all sectors of the economy as well as research organisations.

The evaluation will allow examining any differences in impact across beneficiaries (eg, by company size, sector, location). For the assessment of the aid scheme's direct impact the selected control group will consist of unsuccessful applicants to the scheme and the envisaged method to estimate the impact is regression discontinuity design. The evaluation will make use of the following three main sources of data: administrative data, survey data from the treatment and control group and secondary government-owned data sets. With regard to the proportionality, the evaluation will investigate whether the same impacts could have been realised with less aid. To this end, a comparative analysis of situations where different amounts of aid have been granted will be undertaken in order to assess whether the outcomes differ across aid amounts. An independent evaluation body will be selected via an open and competitive tendering process.

For more information about the case, see:

- SA.40761 innovate uk 2014 – evaluation plan http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_40761.

Part 2: Recent developments in the field of state aid

Every year, members of the Chief Economist Team publish a paper covering the recent developments at DG Competition,[23] especially those where economic analysis played a crucial role. We pick two topics covered in recent articles in that series to discuss some of the priorities in state aid enforcement in the past few years. References to the general part as well as to the use of economics will be made throughout the text.

The energy sector

In 2015–2016, the Commission undertook its first sector inquiry under EU state aid rules.[24] It targeted national measures aimed at ensuring security of electricity supply for their citizens. These measures are called “capacity mechanisms” and take multiple forms, but they all have in common the fact that operators in the electricity markets (including both supply and demand sides) receive incentives in exchange for their availability to address generation adequacy problems (help avoiding blackouts, for example, by generating additional electricity or by cutting consumption in moments of peak

demand). The Commission has already published decisions in this field in the UK, France, Germany and Greece, and other cases are in the pipeline.

Whereas the existence of state aid in these cases is generally not disputed by member states, compatibility assessment entails complex issues. As described in Commission's Report[25] following the sector inquiry, capacity mechanisms may raise concerns in all areas of compatibility. First, the exact definition of the common objective is not straightforward. Even if it is widely recognised that capacity mechanisms have the general objective of contributing to security of electricity supply, member states need to provide further justification through a detailed adequacy assessment that identifies, among others, the amount, type, duration and location of the capacity needs.

UK capacity mechanism (2014)

In the first case assessed by the Commission under the revised Environmental and Energy Aid Guidelines, the UK based its adequacy assessment on a complex electricity market model, featuring multiple scenarios, in order to show lack of capacity in the future. The Commission considered this analysis satisfactory to prove the need for a capacity mechanism.

For more information about the case, see:

- SA.35980 GB capacity mechanism http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_35980.

Furthermore, public support should be designed in the most appropriate way in order to allow selection of the beneficiaries that are best placed to deliver the required capacity availability at minimum cost, ensuring in this way the **proportionality** of the measure. Obligations and penalties imposed on beneficiaries are also key in ensuring that they have the right **incentives** to act in line with the desired objective. The design of these mechanisms is often a complex exercise involving sophisticated auctions that require specialised knowledge, both economic and sector specific. Economists can furthermore contribute in the remedies stage, in case the initially notified mechanism is found to potentially distort competition.

French capacity mechanism (2016)

In a recent decision, France amended a measure proposing to ensure security of electricity supply in the country, by ensuring, among other things, that access of new players to the capacity mechanism is not hindered. The Commission concluded that the revised measure improves the security of electricity supply while maintaining competition.

For more information about the case, see:

- SA.39621 French country-wide capacity mechanism http://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=3_SA_39621.

Enforcement in the field of harmful tax competition

In August 2016, the Commission found that Ireland granted undue tax benefit of up to €13 billion to Apple and ordered the recovery of those tax benefits.[26] This decision followed similar decision in 2015, concerning Fiat in Luxembourg and Starbucks in the Netherlands.

On the analytical side, the tax cases cover issues of transfer pricing and corporate accounting. In order to calculate the fiscal obligation of these multinational companies and establish reliable benchmarks, in-depth knowledge of economics and finance is crucial.

The Commission's analysis in this area was centred on the existence of

aid.[27] Among the conditions listed in the article 107(1) for the existence of aid, the tax cases were focused on **selectivity** (ie, identifying whether the treatment of the companies investigated departed from the general tax regime applicable in a certain member state). At first sight straightforward, this issue gave rise to numerous, often contradictory interpretations, especially when the measure is, in principle, open to all companies.

“Spanish Goodwill” (2016)

A good example of a bumpy trajectory of a case between courts is the Spanish Goodwill. The Commission in its decision had concluded that, by allowing companies to deduct the financial goodwill arising from shareholdings in foreign companies from their corporate tax base, the Spanish measure gave those companies a selective advantage

over their competitors in breach of EU state aid rules. The General Court overturned Commission’s decision, but on a higher instance, the Court of Justice confirmed Commission’s finding that a measure may be selective, if it benefits only those companies that carry out certain transactions, even if the measure is in principle open to all companies. The fact that the conditions that a company needed to fulfil were not strict, and the benefits were therefore available to many companies, does not call into question the selective nature of the measure but only its degree of selectivity.

For more information about the case, see:

- http://europa.eu/rapid-press-release_MEMO-16-4489_en.htm.

[1] <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0209&from=EN>.

[2] Par. 4, Communication on EU state aid modernisation.

[3] The categories of aid potentially allowed by the Treaty include:

- aid having a social character, granted to individual consumers;
- aid to make good the damage caused by natural disasters or exceptional occurrences; aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious under-employment; aid to promote the execution of an important project of common European interest or to remedy a serious disturbance in the economy of a member state; aid to facilitate the development of certain economic activities or of certain economic areas; aid to promote culture and heritage conservation; other categories of aid as may be specified by decision of the Council on a proposal from the Commission.

[4] http://ec.europa.eu/competition/state_aid/legislation/block.html.

[5] [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016XC0719\(05\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52016XC0719(05)&from=EN).

[6] See examples in paras. 61–65, Notice on the notion of state aid.

[7] Para. 74, Notice on the notion of state aid.

[8] Para. 76, Notice on the notion of state aid.

[9] Normally ex post evidence entailing a retrospective finding that the investment made by the member state concerned was actually profitable are not enough to demonstrate the lack of an economic advantage, as it is considered that a private investor has an ex ante perspective when taking a decision to invest and it reasons in expected terms, with a positive probability of failure.

[10] See, for example, Case C53/2006, *Citynet Amsterdam* where the European Commission approved the investment by the municipality of Amsterdam in a glass fibre telecommunications network because it participated in the project along with other private investors. The total equity investment in the project was €18 million. The Amsterdam municipality owned one third of the shares, two private investors, ING Real Estate and Reggefiber together another third, while five housing corporations owned the remaining third. Following an in-depth investigation, the Commission concluded that the two private companies active in the sector, invested on equal terms with the municipality. In particular, all investing parties would have to support any losses in the event of an underperforming business. The structure of the new company ensures that the private investors have significant stakes in the project in a setup where no single shareholder can exert sole control over the company. Together with the detailed analysis of the business plan, these elements provided sufficient evidence for the Commission to conclude that the investment was conform to the market economy investor principle and therefore did not involve state aid.

[11] Para 117, Notice on the notion of state aid.

[12] http://ec.europa.eu/competition/state_aid/reform/economic_assessment_en.pdf.

[13] Para. 44, Common Principles.

[14] Para. 56, Common Principles.

[15] First, the recipient undertaking must actually have public service obligations to discharge, and the obligations must be clearly defined. Second, the parameters on the basis of which the compensation is calculated must be established in advance in an objective and transparent manner. Third, the compensation cannot exceed what is necessary to cover all or part of the costs incurred in the discharge of public service obligations, taking into account the relevant receipts and a reasonable profit. Fourth, where the undertaking that is to discharge public service obligations is not chosen following a public procurement procedure to select a tenderer capable of providing these services at the least cost to the community, the level of compensation needed must be determined on the basis of an analysis of the costs which a typical undertaking, well-run and adequately provided with means to meet the public service requirements, would have incurred in discharging those obligations, taking into account the relevant receipts and a reasonable profit for discharging the obligations.

[16] [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012XC0111\(03\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012XC0111(03)&from=EN).

[17] Para. 21, SGEI Framework.

[18] Para. 25, SGEI Framework.

[19] Paras 27–28, SGEI Framework.

[20] Para. 34, SGEI Framework.

[21] http://ec.europa.eu/competition/state_aid/modernisation/state_aid_evaluation_methodology_en.pdf.

[22] Competition Policy Brief (2014), Issue 7 at http://ec.europa.eu/competition/publications/cpb/2014/007_en.pdf.

[23] Claiici, A et al, (2016) “Recent Developments at DG Competition”, Review of Industrial Organisation, 49(4), (<http://ec.europa.eu/dgs/competition/economist/publications.html>).

[24] http://ec.europa.eu/competition/sectors/energy/state_aid_to_secure_electricity_supply_en.html.

[25] http://ec.europa.eu/competition/sectors/energy/capacity_mechanisms_final_report_en.pdf.

[26] http://europa.eu/rapid/press-release_IP-16-2923_en.htm.

[27] So far, the Commission has found no grounds for compatibility in the tax ruling cases. However, this is not true in general as regards taxation, as the Commission did find in various cases, state aid in the form of tax advantage to be compatible (see, for example, Aid in the form of reduction in environmental taxes, section 3.7 in the Energy and Environmental Aid Guidelines, [http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0628\(01\)&from=EN](http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014XC0628(01)&from=EN)).

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Dr Adina Claiçi is an expert in competition economics and has recently joined the Competition service of Copenhagen Economics as Director of the Brussels office. With more than nine years' of experience as a senior member of the Chief Economist Team of DG Competition at the European Commission, Adina has a unique insight in the most recent competition policy developments at EU level and in-depth experience in mergers, anti-trust and state aid cases as well as policy projects. At the European Commission, her work covered numerous industries, and she coordinated part of the state aid area at the Chief Economist Team. She has been involved in the most significant state aid cases at DG Competition, including the recent sector inquiry into capacity mechanisms in electricity markets, first of its kind in the state aid area. Adina has also significant experience with the interaction between competition policy and regulation across many sectors. As a follow-up to several competition cases, including mergers and state aid, she has experience supporting the Commission in front of the European General Court.

During the past three years at DG Competition, as a coordinator of the European Competition Network of the Chief Economists, Adina gathered valuable insight on the work of the National Competition Authorities.

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