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The Role and Performance of Independent Regulatory Agencies in Post-Crisis Greece

Manto Lampropoulou and Stella Ladi

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Manto Lampropoulou* and Stella Ladi†

ABSTRACT

The importance of independent agencies aiming to regulate the market has increased during the crisis years. Existing agencies such as the Hellenic Telecommunications and Post Commission, the Regulatory Authority for Energy and the Hellenic Competition Committee have been strengthened while new ones such as the Regulatory Authority for Railways and the Regulatory Authority for Ports have been introduced. This has been the result of the increased pressure for privatizations and the liberalization of sectors of the economy (network industries) which used to be dominated by state-owned enterprises (DEKO). This paper aims to map the landscape of independent regulatory agencies (IRAs) in Greece and to provide an assessment their performance up to now.

Keywords: Independent regulatory agencies, regulatory reform, network industries, regulatory performance, Greece.

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1. Introduction

The economic adjustment programmes of Greece (2010-2018) have brought about a range of sweeping changes in major economic sectors and at various levels of the state apparatus. A key reform area has been the network industries, where the tone was set by privatization and liberalization. In view of the new or ongoing reforms regarding the opening of state monopolies to competition and the sale of state assets to private investors, a critical prerequisite for their implementation and support has been the existence of strong regulators in areas that were detached from direct state ownership and control. The agreements signed between the Greek governments and the country's lenders (Memoranda of Understanding - MoUs) included several provisions and measures aiming at strengthening the role of Independent Regulatory Agencies (IRAs). MoUs generated strong pressure for the creation of new IRAs – for instance in the transport and water sectors and the strengthening of existing ones – such as the communications and energy regulators. Within the framework of policy conditionality, the landscape of IRAs in Greece has undergone major transformations, indicating a critical stage in the evolution of the domestic regulatory institutions.

This paper aims to map the current landscape of IRAs and to provide a preliminary evaluation of their role and performance as market regulators. We seek to address two main questions: first, what was the impact of the crisis on the role, number and powers IRAs? Second, what is the current role and mission of IRAs and how do they perform as economic-market regulators in the new policy environment that created the crisis? In line with these questions, we investigate the rationale for the reform of IRAs and the institutional and regulatory adjustments that were introduced during the crisis, as well as the outcomes of IRAs in terms of market regulation. An additional research question to be addressed is the actual synchronisation of market reform policies (privatisation and liberalisation) with the required adjustments of the regulatory function via the reform of IRAs.

The analysis draws on existing theory, but is mainly oriented toward an empirical mapping of the above issues. Along with the relevant literature, the paper is based on empirical data that was collected through personal interviews with IRAs' members. For the assessment of IRAs' performance, we use the OECD Performance Assessment Framework for Economic Regulators and evidence from available utilities market indicators. The paper is divided into three sections. In Section 1, the theoretical background on regulatory agencies is introduced in relation to the effect of the Eurozone crisis and the performance of IRAs. Section 2 describes the evolution of IRAs in Greece from the pre-crisis to the post-crisis period. In Section 3, the role and performance of IRAs are assessed based on evidence on the quality of regulation and the operation of the markets.

1.1 Theory & analytical framework

1.1.1 Market regulation via 'agencification'

The devolution of regulatory powers from central ministerial departments to independent agencies is a form of structural and functional decentralisation that falls within the wave of 'agencification' in public administration. Agencification has been a key trend of administrative reforms that have spread at a global scale (Christensen & Lægreid, 2006) and affected European countries since the 1980s (Gualmini, 2008: 77-80). This type of governance, via non-majoritarian institutions (Thatcher & Sweet, 2002), represents an alternative to the traditional, multi-functional and integrated bureaucratic organizations and is mostly (but not solely) linked with NPM-type reforms (Pollitt et al., 2001; Scott, 2014).

The rationale for the creation of independent agencies focuses primarily on the advantages of the delegation of powers for overcoming (or by-passing) the weaknesses of traditional, centralized and vertically-integrated bureaucracies. In short, independent agencies aim at enhancing the efficiency and effectiveness of government bodies, their flexibility and ability to adjust to changing and complex environments, the credibility and continuity of public policies and the quality of their outcomes for the citizens (Majone 1994; OECD, 2002: 14-15; Shick, 2002; Maggetti 2012; Vibert, 2016: 3-4). However, IRAs have been criticized for their vague democratic accountability and legitimacy (Majone, 1999; Thatcher & Sweet, 2002), the risk of weakening policy coherence and co-ordination (Schick, 2002: 33) and the possibility of 'regulatory capture[3]' (Stigler, 1971).

A distinct sub-category of independent agencies are the authorities for market regulation, which is the topic of this paper[4]. Focusing on the rationale for market-economic regulation, agencification has been directly linked with the emergence and growth of the regulatory state (Majone, 1994; Norton, 2004; Christensen & Lægreid, 2005, 2006; Scott, 2014). The latter has been considered as the successor of the 'positive' welfare state and has led to new modes and tools of government intervention (Majone, 1997; Thatcher, 2002; Braithwaite, 2008). This shift has been expressed via the strengthening of the regulatory and supervisory powers of the state and the respective weakening of direct government intervention in terms of public production and provision. Accordingly, a new policy mix defined by liberalization, privatization and (re)regulation has brought about large-scale transformations and called for new reform and regulatory instruments (Levi-Faur, 2003, 2004; Gilardi, 2008; Scott, 2008; Florio, 2017).

The creation of Independent Regulatory Agencies (IRAs) came largely as a response to policy issues that derived from the privatisation and liberalisation of state monopolies (Córdova-Novion & Hanlon, 2002: 71-72). In a privatised industry, an independent regulator is needed in order to protect the consumer against the abuse of monopoly power and to prevent

[3] Regulatory capture occurs when the regulators are captured by the regulated industries and the operation of IRAs deviates from serving the public interest to the promotion of the interests of market industries.
[4] Regulatory authorities can be categorized in competition, utility and financial regulators (Thatcher 2002: 954).

economic inefficiencies of monopoly operations. In a liberalised market, the regulator must be distinct from the state, as the latter may act in favour of a state-owned or state-controlled enterprise, in order to ensure the equal treatment of the incumbent firms and new entrants. IRAs were a key requirement of this new policy environment. Other reasons point out the need for specialized technical and scientific knowledge in complex policy areas that cannot be managed by traditional ministerial bureaucracies (OECD, 2002: 14). In addition, legal obligations deriving from EU membership has been a key factor for the creation of independent regulatory entities in member states (Norton, 2004: 787). In Greece, the creation of IRAs was basically a response to all of the above factors. The policy mix has been composed of liberalisation, privatisation and Europeanization. These processes were accelerated and intensified after the outbreak of the crisis in late 2009.

Similarly, to the variety of institutional, legal and organisational forms of agencies (Pollit et al. 2001; OECD, 2002; Thatcher, 2002; Christensen, T. & Lægreid, 2005; Yeung, 2010; Verhoest et al., 2012), sectoral regulators and competition authorities significantly vary across and within countries (Córdova-Novion & Hanlon, 2002: 66-70). In this paper, based on Thatcher's work (2005: 352), a set of minimum prerequisites defining IRAs includes: the existence of agencies' own powers and responsibilities (provided by public law), the separation of their organizational structure from the ministers and their independence in terms of not being directly elected or managed by elected officials. These three criteria are met by all IRAs under study here.

1.1.2 The Eurozone crisis and IRAs' reform

In the EU, most IRAs were created after the abolition of state monopolies in network industries in response to the obligations deriving from the sectoral Directives since the late 1980s. In many cases of unsatisfactory performance of IRAs, the intervention of EU institutions was deemed necessary in order to correct the observed weaknesses (CERRE, 2014: 17). In the early stages of markets' integration, external involvements from the EU level were usually related to delays in the transposition of the EU directives into national law (Berglund, 2009; Thomas, 2018). Greek IRAs have often invoked interventions or recommendations from the EU level, particularly regarding the energy sector[5] (Berglund et al. 2006; Nabitz and Hirzelb, 2019). At this time, the creation and operation of IRAs was mainly associated with the acceleration of the EU driven liberalisation process and the opening of markets to competition. The approach on IRAs seems to have changed since the outbreak of the Eurozone crisis. Similar patterns were adopted across countries that were more severely hit by the crisis, such as the countries of the southern European periphery. The reforms that were initiated as a response to the economic adjustment programmes highlighted similar problems, such as the weak role and the insufficient degree of independence of IRAs and suggested similar remedies, mainly the strengthening of IRAs' role, autonomy and powers.

[5] See also European Commission - Press release "Commission refers Greece to Court and gives Germany a final warning regarding the transposition of the Energy Efficiency Directive" (Brussels, 18 June 2015).

However, a critical shift has been the emergence of a new rationale for IRAs' reform, which was linked to the fiscal consolidation process and/or policy conditionality (see section 2ii).

Particular emphasis was placed on the guarantee that the Portuguese Competition Authority has sufficient and stable financial means in order to operate in an effective and sustained way and that the National Regulator Authorities (NRA) have the necessary independence and resources to exercise their responsibilities[6]. In the course of the Economic Adjustment Programme, actions were taken in order to reinforce the independence and autonomy of national regulatory authorities (including energy, communications and aviation) and the Competition Authority[7]. In the transport sector, a new agency was established (Authority for Mobility and Transport - AMT, 2014), which replaced the three former transport regulators in rail, ports and road sectors. As in the Greek case, the need for strengthening the competences and safeguarding sufficient autonomy, independence and authority of the regulator was stressed[8].

In Spain, IRAs were not part of the financial assistance agreement (2012). However, the reform of the institutional framework for the competition policy and regulatory structures was among the measures that were included in the National Reform Programme 2012 (Xifré, 2014: 11). Important changes occurred during the crisis (Espín and Sitges, 2017): on June 2013, the National Commission on Markets and Competition (NCMC) was established[9] as a successor of the National Regulatory Authority, comprising most regulatory bodies in network industries[10]. As in the Greek and the Portuguese cases, this reform aimed primarily at guaranteeing the independence of IRAs and to restrict opportunities for political interference, also supporting the compliance of the country with the EU framework. In particular, NCMC was expected to help the Spanish economy to overcome the crisis and to reignite growth (Xifré, 2014: 1).

Overall, in the context of the Eurozone crisis IRA's reform seems to have followed a common pattern. The broader rationale for reform was the (expected) contribution of IRAs in boosting competition and economic growth and supporting the fiscal-economic recovery. The major weaknesses pointed out the inefficient performance of existing (pre-crisis) regulatory structures and the need for strengthening their role, autonomy and competences. IRAs' reform was associated with broader market reforms, such as liberalization and privatisation and macro-economic stability. The latter was a new element in the domestic IRAs' policy agendas.

In all three countries, the Eurozone crisis created pressure for the acceleration or completion of already pending EU driven reforms that were not directly associated with the crisis. In this respect, notwithstanding the differences in the scale and pace of the reforms, Greece was not

[6] Portugal - Memorandum of Understanding on Specific Economic Policy Conditionality, 17 May 2011, p. 35.
[7] European Commission (2014). *The Economic Adjustment Programme for Portugal 2011-2014*, p. 67.
[8] European Commission (2014). *The Economic Adjustment Programme for Portugal 2011-2014*, p. 66.
[9] Comisión Nacional de los Mercados y la Competencia (CNMC) (Act No. 3/2013).
[10] National Energy Commission; National Antitrust Commission; Telecommunications Market Commission; Rail Regulation Committee; Airport Economic Regulation Commission; National Postal Industry Commission.

an exception to the policy responses to the crisis that reflected a broader agenda for utilities markets and (re-)entered domestic policy programmes via the Eurozone crisis. At the same time, along with the typical legitimacy problems of IRAs, the involvement and motives of supranational actors in domestic policies and decision-making raised additional legitimacy issues and affected the ownership of the reforms which, in the case of Greece, was very low. As a result, as it will be showed in the following analysis, in some cases the adjustments brought about only surface changes to the legislative framework in order to comply with the external obligations.

1.1.3 Measuring IRAs' performance

The literature on IRAs' performance covers a wide range of indicators. The meaning, tools and evaluation criteria of performance vary significantly, as well as the type, methods and unit/levels of analysis, depending on the approach adopted (Brown et al., 2006). A key starting point for the assessment is defined by the aims and expected outcomes of IRAs. In this respect, performance is directly linked with the goals and the mission of IRAs (Pollitt & Talbot, 2004: 14-18), measuring the degree to which these goals have been achieved. A strand of the literature approaches IRAs' performance in an indirect way, linking agency performance with indicators of the agencies' external environment, i.e. market, industry and consumers. Many scholars focus primarily on market, sector or industry performance and the quality of the regulatory environment (Joskow, 2005) or, generally, the regulatory system (Brown et al., 2006). Indicators assessing the effectiveness of market regulation include market performance, price and quality of services/products and market competition (Pollitt & Talbot, 2004; Verhoest et al., 2009).

Other studies measure the quality of services and service delivery (Arblaster and Bolt, 1999; European Commission, 2007; CERRE, 2014; Waddams and Deller, 2015) or assess the quality of regulation in relation to market performance and consumer's satisfaction (Fiorio & Florio, 2009; Clifton and Diaz-Fuentes, 2010). IRAs' performance is also often associated with the degree of their independence. With a focus on EU countries, Parker and Kirkpatrick (2012: 34-41) show that agency independence affects market performance; Cambini and Rondi (2011) find that there is a positive correlation between IRAs and investment decisions; Gilardi and Servalli (2011) find a causal link between the regulator's independence and improved regulatory outcomes. Hanretty et al. (2012) argue that independence and accountability are positively linked with the (perceived) quality of the regulators. Verhoest et al. 2004, based on existing studies, posit that in some cases agency autonomy is positively correlated with technical efficiency, but overall its impact on performance is differentiated or even controversial.

All in all, IRAs' performance depends on broader political, economic and institutional factors and is highly context-dependent. Along with the technical and market criteria, the performance of regulators reflects the embeddedness (or not) of certain good regulation

principles such as transparency, non-discrimination and accountability (OECD, 2008, 2014a, 2016) and the overall quality of the agencies' governance methods (OECD, 2014b: 107). The performance of IRAs is also specified and associated with particular internal variables, such as the professional standards and remunerations of IRAs' members (Navarro, 1982).

This paper draws primarily on the OECD Performance Assessment Framework for Economic Regulators (PAFER) for the assessment of IRAs' performance in Greece (section 3). PAFER offers an inclusive set of general indicators that cover most of the internal and external variables of IRAs' operation and fit well with the features of the Greek IRAs and the purpose of the paper. According to this tool, the performance of IRAs is measured in relation to: (i) strategic objectives, (ii) input, (iii) process, and (iv) output and outcome, as presented in Annex I. These indicators allow to assess many aspects of IRAs' performance as well as to discern their respective strengths and weaknesses in different areas. In the absence of available data measuring directly the performance of the domestic IRAs our analysis is based on existing market indicators, reports and data collected through interviews with members of IRAs and focus-groups.

2. IRAs in Greece

2.1 The landscape of IRAs before the crisis

IRAs in Greece were created mostly as a response to the requirements of the single market and the EU-driven liberalization of economic sectors, such as network industries. In the EU, IRAs for market competition were strengthened during the 1980s and the 1990s, signifying a critical change of the traditional regulation paradigm of which the dominant actors were governments and regulatees (Thatcher, 2005: 347). Greek independent authorities were created and evolved in line with the European trends and external commitments (Georgantas, 2003). Given that the Greek administrative system has been characterized by a high degree of centralization and concentration, the delegation of power to independent entities signified a critical aspect of the broader modernization process of public administration (Spanou, 2008: 161; Ladi, 2014: 190).

Greek IRAs are characterized by certain diversity (Galanis, 2018); their status, type and powers vary across sectors. Thus, a uniform market regulation agency pattern does not exist. In a historical perspective, the authority for the protection of competition was the first quasi-autonomous authority that was established in 1977[11]. Since the mid-1990s, its independency and competences were gradually strengthened[12] and the Hellenic Competition Commission (HCC) took the typical form of an independent agency. Sectoral regulatory agencies were created during the 1990s in parallel with the privatization and liberalization of utilities sectors and the harmonization of the domestic regulatory framework with the EU legislation. The

[11] Law 703/1977.
[12] Laws 2296/1995, 2837/2000 and 3373/2005.

regulatory authority for telecommunications and posts[13] (EETT) was established in 1992[14], at the beginning of the process of market liberalization. Its competences were reinforced and expanded in the following decades[15]. The national regulator for energy (RAE) was established at the end of the 1990s[16], as a result of the adjustments required by the EU market liberalization Directives.

By the end of the 2000s, these new entities had become an integral part of the domestic administrative system and a critical factor for its Europeanization and modernization. While regulatory authorities are not constitutionally guaranteed, they enjoy considerable financial and administrative independence. The existing political and bureaucratic structures initially faced new agencies with skepticism and were reluctant to delegate powers and responsibilities. Most agencies, especially during the early stages of their operation, faced several problems regarding their powers, independence and resources (Alexopoulos et al., 2009) that undermined their regulatory capacity and performance. These weaknesses were well recognized before the eruption of the crisis and were further aggravated due to the delayed adjustment of the markets and the regulatory framework. While the need to complete the required market reforms and to strengthen the role of the regulatory authorities had been stressed by the EU, it was the economic adjustment programmes that triggered more drastic and radical measures that progressed the pending or delayed reforms.

2.2 IRAs during the crisis

2.2.1 Overview

Since the outbreak of the Greek crisis in late 2009, the landscape of regulatory agencies has undergone major transformations. The role of IRAs was notably upgraded, and they were linked with key reforms that were included in the MoUs, such as the liberalization of energy and transport sectors and the privatization of state-owned enterprises. Existing IRAs' powers and competences were expanded and their role in policy-making and implementation was strengthened. At the same time, the legislative framework for the creation of new IRAs was adopted, namely the Regulatory Authority for Railways (RAS, 2010), the Regulatory Authority for Passenger Transport (RAEM, 2013) and the Regulatory Authority for Ports (RAL, 2013 / 2016). In addition, the Special Secretariat for Water was transformed to a semi-independent structure[17] within the Ministry of Environment and Energy.

Along with the (pending) requirements of the single market and the liberalization process, a critical factor underlying the empowerment of IRAs in the course of the economic adjustment

[13] Initially named Hellenic Telecommunications Committee (EET, 1992) and since 1998 Hellenic Telecommunications and Post Commission (EETT).
[14] Law 2075/1992.
[15] Law 2668/1998, Act 2867/2000 and Law 3431/2006.
[16] Regulatory Authority for Energy - Law 2773/1999.
[17] A provision for a separate budget was included in the Supplemental Memorandum of Understanding (June 2016).

programmes was the policy conditionality linking the required reforms with the loan's disbursement (Featherstone, 2015; Spanou, 2018). The latter created a new policy environment. The strong external pressure to de-politicise several functions of the domestic administrative system, especially in MoU-related areas – due to the low trust of the country's creditors vis-a-vis the Greek governments – enabled and supported the creation of independent entities that operate 'at arm's length' from the state. This attempted de-politicisation through agencification[18] was observed not only at the level of regulatory agencies, but affected many central administrative structures and implied a clearer division between the political and the administrative sphere (Lampropoulou & Oikonomou, 2018).

2.2.2 MoUs & Reform Programmes

The provisions and obligations that were included in the MoUs and the domestic reform programmes include a range of measures targeting both markets and IRAs:

During the 1st programme (2010), emphasis was placed on the strengthening of the role, competences and independence of the Hellenic Competition Commission (HCC). In line with the Memorandum obligations[19], domestic legislation provided for the empowerment of HCC and a new institutional framework was adopted[20] – ensuring its independence, effectiveness, accountability and the continuity of its board[21]. Detailed measures were also set out for the reform of the energy and transport sectors, including the gradual liberalization of markets and the strengthening of the regulators[22]. Among them, the reinforcement of the independence of the Regulatory Authority for Energy – with reference to the nomination of board budget and personnel – was a key action[23]. In light of these requirements, new legislation was passed that changed and empowered the role of RAE[24].

The 2nd programme (2012) included deeper and more detailed provisions for IRAs. An upgrading of HCC's role in certain ongoing reforms was observed, such as in regulated professions, fuel sector and product markets[25]. Regarding sectoral regulators, in the 2nd MoU a critical change regarding the linkage of IRAs with the envisaged reforms was the shift of the focus from liberalization to privatization. The role of IRAs was more directly linked with the use and management of state assets[26], along with the opening of the markets to competition. IRAs were a necessary precondition for the proper regulation of markets under privatization:

[18] From an institutional perspective, IRAs represent a critical aspect of 'functional decentralization' reforms (Spanou, 2008: 161).
[19] Greece: Memorandum of Understanding on specific economic policy conditionality (May 2010), pp. 11, 26.
[20] Law 3959/2011 (amended by Laws 4013/2011, 4072/2012, 4364/2016 and 4389/2016).
[21] Law 3845/2010, p. 1368; The Economic Adjustment Programme for Greece, Fourth review (July 2011), p. 67.
[22] Law 3845/2010, p. 1347.
[23] Greece: Memorandum of Understanding on specific economic policy conditionality (May 2010), p. 12, 26; Law 3845/2010, p. 1369; The Economic Adjustment Programme for Greece, Fourth review (July 2011), p. 71.
[24] Laws 3851/2010 & 4001/2011.
[25] The Economic Adjustment Programme for Greece, Fourth review (July 2011).
[26] Greece: Memorandum of Economic and Financial Policies (March 2012), ch. D, par. 24; Law 4046/2012, p. 762.

for instance, regarding ports and gas sectors[27]. The agreed measures covered sectors with limited scope for competition such as ports, water, airports and motorways, and differed from the case of telecommunications and energy market reforms that were mainly driven by the liberalization process. The establishment and the strengthening of the effectiveness and autonomy of port, rail and water regulating authorities were actions of major importance[28]. In the e-communications sector, the MoU II extended the role of the Hellenic Telecommunications and Post Commission (EETT) as a one-stop shop for the licensing of antennae and base stations[29].

In the 3rd programme (2015), the above reforms progressed and were further specified. The need to strengthen the institutional, financial and functional independence and effectiveness of existing IRAs such as the HCC and RAE was stressed, along with measures aiming at enhancing the role, functionality and powers of the newly established regulatory structures for water and ports[30]. Special emphasis was placed on the operation, competences and autonomy of the Special Secretariat for Water[31]. A critical new element that was included in the 3rd MoU is that, for the first time, a unified approach on independent agencies was introduced. In light of the relevant provisions, the Supplemental MoU (2017) emphasized the need to review and simplify the existing legislative framework and to define a common set of rules that would apply horizontally to all independent agencies[32]. In line with the envisaged horizontal legislation, the main principles for HCC, RAE and RAEM are expected to be further defined[33]. Up to date, a revised partial version of the draft law has been submitted by the Greek authorities and was under consultation with the EU institutions, leading to a revised report on June 2018[34].

After the conclusion of the adjustment programmes in August 2018, the continuity and completion of these reforms was agreed, and their progress is being monitored. Regarding the review of the legal framework for independent authorities, priority areas have been the legislation for RAE and RAEM[35] as well as the further increase of the independence of RAE in decision-making and its overall capacity[36].

[27] The Second Economic Adjustment Programme for Greece. Fourth Review (April 2014), p. 3.
[28] The Second Economic Adjustment Programme for Greece. Fourth Review (April 2014), pp. 26-27, 76-77, 121.
[29] Greece: Memorandum of Understanding on Specific Economic Policy Conditionality (March 2012), (Growth-Enhancing Structural Reforms).
[30] Greece - Memorandum of Understanding for a three-year ESM programme (August 2015), pp. 24, 27; Law 4336, p. 1027; Greece - Supplemental Memorandum of Understanding (June 2016), p. 41.
[31] Greece - Supplemental Memorandum of Understanding (June 2016), p. 32; Compliance Report - ESM Stability Support Programme for Greece - Fourth Review (July 2018), pp. 29, 61-62.
[32] Greece - Supplemental Memorandum of Understanding (June 2016) pp. 2, 40-41.
[33] Compliance Report - ESM Stability Support Programme for Greece - Fourth Review (July 2018), pp. 72-73.
[34] Compliance Report - ESM Stability Support Programme for Greece - Fourth Review (July 2018), pp. 72-73.
[35] Enhanced Surveillance Report. Greece, November 2018 (p. 63).
[36] Enhanced Surveillance Report. Greece, June 2019, p. 59.

2.3 State of play: The post-crisis landscape of IRAs

The current landscape of IRAs is characterized by a notable increase in their number, compared with the pre-crisis period, and the strengthening of their role and powers in policy-making and implementation. The reforms are still in progress and both new and old agencies are adjusting to new requirements under the Europeanization, liberalization and privatization process. Existing agencies are embedding their new powers, functions and responsibilities, while the newly created agencies are in the process of establishing their authority and defining their role in the new market environment.

In the present circumstances, according to existing legislation, the IRAs for market regulation are the following:

- The *Hellenic Competition Commission* (HCC, 1977) is responsible for the enforcement of the national and EU competition rules. The HCC has enforcement and consultative powers and its role is critical in the identification and removal of barriers to competition as well as in the area of collusive practices/cartels, abuses of dominance and merger controls. It has horizontal competences for market competition, and it collaborates with the sectoral regulatory authorities. HCC enjoys procedural, decision-making and financial autonomy.
- The *Hellenic Telecommunications and Post Commission* (EETT, 1992) is the competent competition authority in the telecommunications and post markets. EETT is responsible for the monitoring, regulation and supervision of electronic communications (fixed / mobile telephony, wireless communications and Internet) and postal services markets (postal / courier service provision). The authority enjoys administrative and financial independence.
- The *Regulatory Authority for Energy* (RAE, 1999) is responsible for the operation of the domestic energy market (electricity, natural gas, oil products, renewable energy sources, cogeneration of electricity and heat, etc.). RAE is financially and administratively independent and its main duties include the monitoring of all subsectors of the market and the activity of the licensees, the imposition of financial sanctions, arbitration and dispute settlement. RAE also has an advisory role and participates in the pre-parliamentary process of the legislation that applies to the energy sector.
- The *Regulatory Authority for Railways* (RAS, 2010) monitors the operation of the rail transport sector and aims at ensuring fair and non-discriminatory access to the railway network and services. The previous regulating body was the National Council of Railways, which was established in 2008. RAS is functionally, administratively and financially independent.
- The *Regulatory Authority for Passenger Transport* (RAEM, 2013) is the competent body for the regulation of the inter-city transports. Its main mission is to ensure the non-discriminatory and continuous provision of inter-city transport services across the country. RAEM is administratively and operationally independent and enjoys financial

autonomy. However, up to date, RAEM remains practically inactive, as its operation has not begun[37].

- The *Regulatory Authority for Ports* (RAL, 2013 / 2016) is responsible for the monitoring of the ports and the relative procedures and services. Initially RAL was established as a quasi-independent public service (2013), overseen by the Ministry of Shipping and Island Policy. Three years later (2016) RAL was transformed into an independent regulatory authority. RAL is currently responsible to supervise and ensure the legality of the relation between the public and private bodies of the national port system, especially regarding the implementation of the competition policy.
- The *Civil Aviation Authority* (APA, 2016) is competent for the regulation and supervision of the operation of civil aviation and the implementation of the legal framework, international conventions and national legislation. APA is separate from the existing Civil Aviation Authority (YPA)[38] and is supervised by the Ministry of Infrastructure and Transport.
- The *Special Secretariat for Water* (SSW, 2016) is the competent structure for the regulation of the water sector. SSW is a specific case of regulatory body that does not typically constitute an independent authority, as is a distinct unit of the Ministry of Energy and Environment, but since 2016 operates under a special framework that guarantees a certain degree of autonomy (the SMoU mentioned the need for SSW to have its own budget).

Table 1 summarizes the existing IRAs in network industries and the type / regime of the respective markets and sectors.

Table 1. IRAs & markets

Sector	Market	Regulator
TELECOMMUNICATIONS & POSTS	*Liberalized*	Hellenic Telecommunications and Post Commission (EETT)

[37] The members of RAEM took office in September 2014. However, shortly after their appointment, one member resigned, and the authority could not operate. In addition, the necessary decisions for its funding and staffing have not been issued by the competent Minister. More than five years after the creation of RAEM the term of office of its members has expired without any contact or collaboration between them and the competent Minister at any time during their term or thereafter.

[38] See Law 4427/2016 (codified). The operation of the Authority has been characterised by important delays, especially regarding the division of competences between APA and YPA (the required presidential decrees were issued 2 years after the establishment of APA).

Telecommunications	Oligopoly: 4 fixed and 4 mobile tel. providers[39]	
Posts	Oligopoly: 10 providers[40]	
ENERGY	*Liberalized* (ongoing)	Regulatory Authority for Energy (RAE)
Electricity	Oligopoly: 25 providers[41]	
Gas	Oligopoly: 21 providers[42]	
TRANSPORT		
Railways	*Liberalized* Oligopoly: 5 companies	Regulatory Authority for Railways (RAS)
Urban transportation (Athens & Thessaloniki)	Monopoly	[Athens Public Transport Organization (OASA S.A.), Transport Authority of Thessaloniki S.A. (OSETH)][43]
Inter-city transport	*Quasi-liberalized* [monopoly / line (62 KTEL)]	Regulatory Authority for Passenger Transport (RAEM)
Marines/ports	*Quasi-liberalized* (Concessions[44] and / or privatization[45])	Regulatory Authority for Ports (RAL)
Airports	*Quasi-liberalized* (Concessions)	Civil Aviation Authority (APA)
WATER & SEWERAGE SERVICES	*Non-liberalized* Monopoly	Special Secretariat for Water (SSW)[46]

[39] Source: Interviews and EETT, *Market Review of Electronic Communications & Postal Services 2017*.
[40] Source: EETT, *Market Review of Electronic Communications & Postal Services 2017*.
[41] Source: DEDDIE data (Dec. 2018).
[42] Source: data from Natural Gas Distribution Companies – EDAs (Attica, Thess, DEDA) (Nov. 2018).
[43] These entities are not IRAs according to our definition; however, they are responsible for the monitoring of the respective sectors and are supervised by the Ministry of Infrastructure and Transport.
[44] Regional ports.
[45] Piraeus Port Authority S.A. (OLP) and Thessaloniki Port Authority S.A. (OLTH).
[46] Structure within the Ministry of Environment and Energy.

INTER-SECTORAL HORIZONTAL COMPETENCES	(various regimes)	Hellenic Competition Committee (HCC)

Source: Compiled by the authors

From this overview, a set of common features, as well as certain differences, can be traced among existing IRAs – as presented in Table 2. Regarding the similarities, the creation of IRAs in all cases has been the result of external pressures and came as a response to the single market requirements and the adjustment of the domestic framework to EU legislation (sectoral Directives). In most cases, especially in the early stages of their operation, IRAs faced several problems of limited powers, inadequate resources, political interferences and understaffing. IRAs are characterized by several differences with reference to their powers, institutional features, resources and degree of independence.

Table 2. Similarities and differences among IRAs

Similarities		Differences	
Rationale: adjustment to external requirements • common market • debt crisis • economic adjustment	Supranational policy context (EU Directives, MOU)	• Powers • Institutional features • Degree of independence • Resources	Domestic policy context (institutional – regulatory framework)

Source: Compiled by the authors

During the economic adjustment programmes IRAs were part (and prerequisite) of key reforms in the utilities sector. The strengthening of existing IRAs and the creation of new ones was the combined effect of the acceleration of pending (delayed) reforms and new commitments were undertaken under the Memoranda in the energy, telecoms, transport and other sectors. The pre-crisis IRAs have been mostly oriented towards the liberalization of the markets, while the post crisis (new) IRAs seem to have been more closely linked with the privatization programme (Table 3). Accordingly, the type and the degree of competition of the respective markets vary.

Table 3. IRAs, markets and policy orientation

	Regulated oligopolies	*Regulated monopolies*

Liberalization – Europeanization oriented	RAE EETT HCC	SSW
Privatization oriented		APA RAS RAL RAEM

Source: Compiled by the authors

3. The Question of IRAs' Performance

3.1 Quality of regulation and the insiders' view.

This section makes a preliminary assessment of IRAs' performance, based on the existing legislation and the views of the regulators and the industry. We mainly focus on sectoral regulators[47], thus the HCC is not included, due to its horizontal competences. For EETT, RAEM, RAL and RAS we draw on information that was gathered via communication or personal interviews with their members and staff[48]. For RAE, we combined existing literature and findings from a focus group on Energy Policy in Greece that was held in 2016[49]. We also used data from the annual reports of IRAs and other official publications. For analytical reasons, we discern the pre-crisis and post-crisis IRAs. Our assessment is structured according to the OECD indicators that are presented in Annex I, namely: *strategic objectives, inputs, process, outputs* and *outcomes* of IRAs.

3.1.1 Strategic Objectives

- Pre-crisis IRAs:
    - In the telecommunications sector EETT's powers have been gradually strengthened and the agency has established its role in the market. The institutional and regulatory framework is sufficient, but regular updates are necessary. As regards the relationship of EETT with the overseeing Ministry, its independence seems to have been established, also due to the technical knowledge that is needed for the regulation of the sector and the lack of expertise of the competent ministerial structures. In some cases, EETTs' proposals have not been accepted by the Minister, mainly because of the

[47] We have excluded from this assessment the water (SSW) and civil aviation (APA) authorities, as the respective markets are quite dissimilar to the other sectors under study.

[48] In total 9 semi-structured interviews / conversations with the heads and / or members and officials of EETT, RAS, RAL and RAEM.

[49] Available at http://www.ekke.gr/siemens/%CE%95%CE%A1%CE%93%CE%91%CE%A3%CE%A4%CE%97%CE%A1%CE%99%CE%91%20%CE%94%CE%97%CE%9C%CE%9F%CE%A3%CE%99%CE%91%CE%A3%20%CE%A0%CE%9F%CE%9B%CE%99%CE%A4%CE%99%CE%9A%CE%97%CE%A3.pdf.

different prioritization of policy goals at this time. The managerial autonomy of EETT to a degree is guaranteed by the law and its members serve on a fixed-term basis. The board of EETT is appointed by the overseeing Minister and the current management believes that there are not many interventions in the agency's operation.

  - In the energy sector, RAE's role still seems to be unclear, which largely reflects the ambivalence of the policymakers toward the delegation of powers from the central ministerial structure to the regulator. The need to strengthen its decision-making and regulatory competences has been stressed.

- Post-crisis IRAs:
  - RAS has specified a set of strategic and sectoral objectives to be met (RAS, 2018: 81-82).
  - RAL's mandate is clearly defined and specified (RAS, 2018: 9-14), as well as the division of policy and regulatory responsibilities between RAL and the Ministry of Maritime and Insular Policy (Angelopoulos et al., 2019: 11-12). However, the objectives of RAL are mostly linked with technical and procedural competencies, on a short- or medium-term basis, and to a lesser extent include issues of a strategic character[50].
  - RAEM's goals, except for its founding law provisions, have not been specified in practice and in detail, due to the actual inactive status of the authority[51].

3.1.2 Inputs (role and independence of IRAs)

- Pre-crisis IRAs:
  - In the telecommunications sector EETT's powers have been gradually strengthened and the agency has established its role in the market. The institutional and regulatory framework is sufficient, but regular updates are necessary. As regards the relationship of EETT with the overseeing Ministry, its independence seems to have been established, also due to the technical knowledge that is needed for the regulation of the sector and the lack of expertise of the competent ministerial structures. In some cases, EETTs' proposals have not been accepted by the Minister, mainly because of the different prioritization of policy goals at this time. The managerial autonomy of EETT to a degree is guaranteed by the law and its members serve on a fixed-term basis. The board of EETT is appointed by the overseeing Minister and the current management believes that there are not many interventions in the agency's operation.
  - In the energy sector, RAE's role still seems to be unclear, which largely reflects the ambivalence of the policymakers toward the delegation of powers from

[50] Besides, according to its founding law (4389/2016), RAL's mission is to oversee and guarantee the legality of the contractual relationships between the public and the private stakeholders of the Greek port system, with emphasis on the implementation of the legislation.
[51] See previous section, footnote 37.

the central ministerial structure to the regulator. The need to strengthen its decision-making and regulatory competences has been stressed.

- Post-crisis IRAs:
    - RAS does not have extensive powers regarding policy formulation and strategic issues, as the major policy decisions are made by the competent Minister.
    - RAL's role mainly includes procedural issues and the implementation of the legislation in the Greek port system. Besides, the founding Law provides that its mission and its area of responsibility are in line with and restricted by the competences of the Ministry for Maritime and Insular Policy.
    - RAEM has no regulatory role, as its operation has not practically begun[52].

As regards the resources of IRAs**:**

- Pre-crisis IRAs:
    - The budget and economic means of EETT are adequate, also given that an important source of revenue are the licensing rights. On the contrary, existing human resources are rather insufficient in relation to the needs of the authority. A major problem pointed out by all interviewed members and officials of EETT is the lack of personnel, especially regarding staff with specialized skills / knowledge of the telecoms sector. A precondition for attracting high-skilled personnel is the existence of incentives, which however is missing, mainly due to the fiscal restrictions that were imposed on public sector wages and remunerations.
    - RAE's personnel is not sufficient. Less than half positions have been filled (74 out of 157), and human resources need to be strengthened (RAE, 2018: 383-386). The main reason for this understaffing is, as in the case of EETT, the weak motives to attract high-skilled personnel due to the restrictions of the public sector wage-scale.
- Post-crisis IRAs:
    - RAL is not funded by the state budget, but its resources come from endowment fees and from revenue of port and other operators. The authority is understaffed, as only 9 out of 35 positions have been covered (RAL, 2019: 44).
    - RAS is understaffed and mostly lacks specialized stuff in the area of its competences (RAS, 2018: 79).
    - RAEM has no resources at all, as the relevant decisions for its budget and for hiring personnel have not been issued by the competent Minister.

3.1.3 Process

- Pre-crisis IRAs:

[52] see footnote 37.

- EETT generally meets the goals of accurate, timely and effective intervention, also guaranteeing a certain degree of access and participation (via public consultations) of the stakeholders.
    - In the case of RAE, its operation is characterized to a large extent by heavy procedures and red-tape that hinders the speed, flexibility and effectiveness of the regulator. The publicity and participation requirements are met through the provided information and public consultations.
- Post-crisis IRAs:
    - RAL and RAS operate mainly according to the rules and procedures of public (administrative) bodies. They both provide information on issues of the railways and port sectors and they held public consultations.
    - There is no data for RAEM, as the authority has not operated since its creation in 2013.

3.1.4 Outputs

- Pre-crisis IRAs:
    - The telecoms providers often challenge the decisions of EETT in courts. However, this tendency is gradually weakening and in most cases the courts do not overturn the decisions of the regulator but lower the fines or sanctions that are imposed by EETT.
    - RAE's decisions often invoke the reaction of DEI, which is the incumbent of the energy sector. Most appeals to the courts usually refer to issues of compensation and financial disputes[53].
- Post-crisis IRAs:
    - A small percentage of RAL's decisions are challenged in courts, around 10%[54].
    - RAS's decisions have been generally accepted, while several compensations have been paid by TRAINOSE to passengers.
    - There is no data for RAEM, as the authority has not operated since its creation in 2013.

3.1.5 Outcomes

- Pre-crisis IRAs:
    - In the telecoms market the degree of competition is estimated to be "satisfactory". In the early stages of liberalization several problems arose due to the entry of providers that were not able to invest and stay in the market on a long-term basis. Gradually, these phenomena were weakened, and the market has balanced. In the current circumstances, the telecoms market operates as a regulated oligopoly. While there is competition among service

[53] For instance, the compensation for the provision if Public Service Obligations (PSOs).
[54] For 2018, 4 out of 39 (RAL, 2018: 12].

providers, the number of the active telecom companies is relatively low[55]. In addition, given that in countries with similar market structure and conditions competition is stronger, there is room for improvement[56].

  - The energy market appears as a quite problematic case regarding market opening and competition. The process is rather slow and ineffective, for many reasons that range from the quality of policy formulation and implementation to structural constraints of the infrastructure and service delivery[57]. The absence of feedback mechanisms is a major weakness of the domestic energy policy in general and of RAE in particular[58].

- Post-crisis IRAs:
  - With regard to the RAS, compared to other EU countries, the number of rail operators in the Greek market is relatively low[59].
  - The regulation of the port sector is complex, as it is a monopoly market (concession). Little evidence exists regarding the quality of its functions, while available studies mostly focus on the potential of the market, for instance regarding quality and safety systems (Chlomoudis et al., 2011), the port system[60] etc.
  - RAEM is practically inactive, thus no outputs or outcomes have been delivered.

3.2 Market indicators

An additional external source for the evaluation of IRAs' outcomes is the view of the consumers in network industries. Consumer Markets Scoreboard can be used as an indicator reflecting (among others) the quality of regulation in utilities markets. The components of the Market Performance Indicator index (MPI) include the respondents' estimations and ratings with regard to five variables: Comparability, Trust, Problems & Detriment, Expectations and Choice. Their average scores since the beginning of the crisis are presented in Table 4.

Table 4. Market Performance in regulated network industries

Average MPI	2017-2015	2017-2013	2015-2013	2013-2012	2012-2011	2011-2010	Country EU-28

[55] Recently, telecoms providers were reduced from 5 to 4 and it is possible that further retraction will follow from 4 to 3 companies.
[56] However, a higher degree of competition does not solely depend on the regulator, but is also affected by other factors, such as the broader economic environment, the motives or the obstacles for investments, etc.
[57] See for instance (IEA, 2011; Polemis, 2014).
[58] See also Lampropoulou & Georgiou, 2017.
[59] RAS (2017). *Annual Report,* pp. 9-10.
[60] European Port Industry Sustainability Report 2017, pp. 8-9.

Fixed telephone services	76.6	-3.9*	-4.4*	-0.4	+3.1*	+1.0	-0.6	-0.6
Postal Services	81.6	+1.6	+1.5	+0.3	+2.1*	-0.5	+0.7	+2.1*
Internet provision	75.2	-2.1*	-3.3*	-1.5	+0.9	+1.5	+3.7*	-1.6*
Train services	78.2	+1.9*	+4.0*	+2.1*	+4.5*	-0.1	-2.6*	+1.4*
Water supply	72.2	-1.3	+2.0	+2.8*	+2.6*	-2.2	-1.9	-4.9*
Mobile telephone services	75.9	+2.9*	-2.7*	-5.8*	+3.4*	-0.1	+1.0	-1.2
Electricity services	68.8	-0.8	+4.1*	+5.5*	+4.2*	-6.8*	-3.1*	-7.5*
Gas services	81.4	+3.9*	+4.7*	+0.3	+1.9	+2.9*	-2.0*	+2.1*

Source: EU - Consumer Markets Scoreboard 2018.

The data shows that during the crisis period there have been some improvements, but most indicators have deteriorated. In the area of RAE, electricity services are among the three worst-performing markets and score below the EU-28 average. The same goes for Water supply. Internet provision and fixed telephone services have been deteriorating since 2013 and are below the EU-28 average, implying the underperformance of the e-communications market. Postal services, Gas services and Train services have improved and score above the EU-28 average. However, these findings are partly controversial, to the extent that sectors that fall within the responsibility of the same regulator record both positive and negative scores, i.e. electricity and gas for RAE and fixed-telephone and postal services for EETT. They also show the limitations of these indicators for providing a clear relationship between market and regulatory performance, as the latter depends on a variety of factors.

4. Conclusions

This paper provided a mapping of the Greek IRAs, described the changes that occurred in the course of the recent economic adjustment programmes and attempted a first assessment of their performance up to now. Focusing on utilities markets, we discerned two distinct phases in the evolution of the competent regulatory institutions, i.e. the pre-crisis and the post-crisis IRAs. The debt crisis has triggered major transformations that required the strengthening of existing IRAs (HCC, EETT, RAE) and the creation of new ones (PAL, PAS, RAEM, APA) in order to support the implementation of the agreed reforms. A first critical finding is that the

rationale for IRAs' reform differs between the pre and the post-crisis IRAs. In all cases, the main factor for reform has been an external pressure or obligation. However, in the pre-crisis IRAs the rationale for reform was clearly a pro-liberalization one, while in the case of the post-crisis ones the reasons behind the creation of IRAs were directly related to the support and implementation of the privatization programme. Accordingly, the creation of the first generation of the Greek IRAs was driven by the single market prerequisites and the EU sectoral Directives, while the second generation of IRAs mostly came as a result of the conditionality and the need to comply with the MoU prerequisites.

In the current circumstances the status of IRAs varies substantially regarding their institutional features, powers, resources and independence. Considerable differences were observed in the conditions and the operation of the respective markets. The pre-crisis IRAs operate in oligopoly markets after liberalization (telecommunications, energy), while the post-crisis ones in monopoly sectors in view of or after privatization (transport, water). The performance of IRAs varies. Drawing on the indicators of the OECD Performance Assessment Framework for Economic Regulators, findings show that older and established agencies, such as EETT, seem to perform better than newly created ones that still lack powers and resources. RAS and RAL are in the process of establishing their role and functions and show good prospects but they both need institutional strengthening. RAE appears as a rather problematic case and its independence and powers need to be reinforced. Some progress in this direction was recorded during the economic adjustment programmes; however, the energy market still is characterised by major flaws and distortions of the competitive standards. Another problematic case is RAEM, which actually remains a 'ghost' IRA, as it was legally established but has not (yet) operated. All IRAs under study face considerable difficulties in obtaining the necessary human resources especially regarding specialized personnel. In addition, the need for strengthening their powers as regards decision making competences has been stressed.

These weaknesses reflect a broader flaw of IRAs that is linked with the suggested non-synchronisation of the regulatory and policy framework. In short, the reason for the creation of IRAs has been often the formal-legislative compliance with the EU Directives and / or the Memorandum prerequisites in order to initiate the liberalisation and privatisation process, without having ensured sufficient competences and powers for the regulators. The lack of powers and resources is a key explanatory factor for the weaknesses and the underperformance of many IRAs. Nevertheless, the creation of IRAs has also led to several improvements, especially regarding the provided information and the transparency of the regulatory function.

An interesting question, which however goes beyond the aims of the paper, concerns the interplay between the deep-rooted cultural norms and practices of the domestic political-administrative system and the new standards, mainly the required depoliticisation of the regulatory institutions, which was externally imposed. The fact that most domestic IRAs were not created on national governments' own initiative, but the latter were forced to do so by

the EU and/or the crisis pressure implies a prior (negative) reflex towards the delegation of powers from the central Ministries to semi-autonomous institutions. As discussed in section 3.i.2, while IRAs' independence was seemingly strengthened during the crisis, government interference in their operation remains a serious challenge, especially regarding informal political involvements.

The findings of this paper are not conclusive, as in Greece no common framework or methodology for the measurement of IRAs' performance exists. Moreover, many of them do not yet have an adequate operating experience. A critical issue that directly affects and will affect IRAs' role in the future is the degree of their independence and their relationship with the political and administrative system. It remains to be seen whether and how the IRAs that were established under policy conditionality will find their pace and become a normalised part of the Greek administrative apparatus in the post-crisis context.

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Annex.

The OECD Performance Assessment Framework for Economic Regulators

Strategic objectives	Clearly identified role and objectives	To identify the existence of a set of clearly identified objectives, targets, or goals that are aligned with the regulator's functions and powers, which can inform the development of actionable performance indicators	
Input	Efficiency and effectiveness of Input	To determine the extent to which the regulator's funding and staffing are aligned with the regulator's objectives, targets or goals, and the regulator's ability to manage financial and human resources autonomously and effectively	e.g. Planned activities completed on time and on budget
Process	Quality of process for regulatory activity	To assess the extent to which processes and the organisational management support the regulator's performance	e.g. Measurement of accuracy, timeliness, accessibility, participation, risk analysis, use of evidence)
Output	Output from regulatory activity	To identify the existence of a systematic assessment of the performance of the regulated entities, the impact of the regulator's decisions and activities, and the extent to which these measurements are used appropriately	e.g. Decisions taken which were upheld
Outcome	(i) Direct outcome / impact of outputs		
	(ii) Wider outcomes		Market structure (e.g. level of competition) Service and Infrastructure Quality (e.g. frequency and reliability of services to consumers, reliability and deployment of infrastructure) Consumer Welfare (e.g. ability of consumer to choose the service that best fits their preferences) Industry performance (e.g. revenues, profitability, investment)

Source: OECD 2018: 86-87 & OECD, Driving Performance of Regulators: http://www.oecd.org/gov/regulatory-policy/driving-performance-of-regulators.htm

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