Assessing the EU pressure for rules change: the perceptions of southern Mediterranean energy regulators ¹

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Abstract

This paper analyses the perception of the EU as a rules promoter for energy regulatory agencies in four southern Mediterranean countries: Algeria, Egypt, Turkey and Jordan. The restructuring of the energy sector, as promoted by the EU in the southern Mediterranean region, is considered to be the main criteria to evaluate the EU's modes of external governance. The EU's modes of governance are comparatively assessed through a perception survey. The case studies have been selected due to their relevance in terms of energy sector restructuring and energy exchanges. Among the modes of governance considered, the top-down approach appears to be the most promising mode for rules diffusion.

Keywords: Energy, Governance, Networks, Regulation, Rules promotion

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1. Introduction

The southern Mediterranean region is currently at the centre of renewed interests in energy (electricity, gas and renewables). Southern Mediterranean countries have considerable resources from renewable generation for both self-sufficiency and energy trading (MedReg 2012). Energy consumption in the southern Mediterranean is expected to increase over the next 20 years by 70%, with an 87% reliance on fossil fuels (European Commission 2007b). In 2009, the primary energy consumption reached a level of 311 Mtoe², of which 44% was covered by oil, 36% by natural gas, 14% by coal (primarily in Turkey and Morocco) and 6% by renewables (Hafner, Tagliapietra, El Andaloussi 2012). In the near future, the energy demand is expected to increase by 2% per year to reach 1.405 Mtoe (OME 2011). In the OME scenario, the southern Mediterranean countries account for "33% of the region's energy demand today" (OME 2011), which may expand to 47% by 2030.

The aforementioned data confirm the relevance of projects in favour of energy sector restructuring such as those sponsored by the EU. Initiatives such as the Mediterranean Solar Plan, launched within the framework of the Union for the Mediterranean (UfM), stress the role that energy sector restructuring may have on improving generation capacity for both energy self-sufficiency and energy exchange between the two shores of the Mediterranean Sea. Euro-Mediterranean cooperation has allowed the advancement of small and very technical aspects of energy generation, further stressing the role of the functional integration approach (Werenfels and Westphal, 2010).

The process of energy sector restructuring promoted by the EU builds on the EU's experience as a regulatory actor. In this regard, this paper investigates the perception of the EU as a rules promoter in the energy field by the energy regulatory agencies of four Middle Eastern and Northern African (MENA) countries: Algeria, Egypt, Jordan and Turkey. Having in mind the specificities of the EU regulatory framework (i.e., the establishment of independent regulatory agencies (IRAs), the tariff setting processes, the presence of a Third Party Access (TPA) regime, and unbundling), this study may also contribute to the assessment of the effectiveness of the EU as a rules promoter.

In this regard, the establishment of an IRA is the main criteria according to which our sample has been defined. The MENA countries included in this study have all introduced an independent regulator for the energy sector. Israel is the sole country that has established an IRA but is not included in this study because the appropriate officials never responded to our enquiry. Moreover, all of the considered countries are related to the EU through partnership building programs and, in the Turkish case, by prospective membership. The sample includes relevant countries as energy producers and energy corridors for both EU-MENA relationships (i.e., Algeria and Turkey) and at the intra-MENA level (Egypt). These countries are representative of all regimes in the region (Presidential, Algeria and Egypt; Parliamentary, Turkey; Monarchy, Jordan) and are all at the centre of investment projects for renewable energy. Finally, these countries have consolidated relationships with the EU: for example, Turkey, a candidate country for EU membership since 1987, is gradually adopting and implementing the acquis communautaire on energy. Thus, Turkey is directly subject to EU direct pressure for rules adoption and implementation. With regards to Egypt and Jordan, both countries joined the Euro-Mediterranean Partnership (EMP) in 1995. Currently, the two countries are taking part in the European Neighbourhood Policy (ENP) and the Union for the Mediterranean (UfM). Association Agreements (AAs) between these countries and the EU entered into force in 2002 for Jordan and 2004 for Egypt. On the base of AAs, bilateral Action Plans (APs) identify the actions to be implemented as well as the financial resources required. In the case of Algeria, despite its participation in EU initiatives, a bilateral AP is still missing.

The study emphasises the EU's top-down pressure for rules adoption as well as the EU's indirect, network-based, rules promotion. The case of network pressure is represented primarily by the Association of the Mediterranean Regulators

² Mtoe: Million tonnes oil equivalent

for electricity and gas (MedReg) which is financially supported by both the EU and the Associations' members. At the same time, domestic, bottom-up pressure for rules change is also considered.

The research method adopted consists of a perception survey directed at the MENA regulators for the four mentioned countries.

The paper is structured as follows. In Section 2, we review the literature on rules change, referring to the three sources of pressure for rules change as the explanatory factors for rules diffusion: the bottom-up, the top-down, and the network approach to rules diffusion and promotion. In Section 3, we undertake a brief description of the three elements of energy sector regulation, on which our study focuses, to verify the coherence between the EU domestic model of regulation and the model promoted in the southern neighbourhood. Section 4 presents the methodology of the survey, while Section 5 reports the primary results from our case studies. Finally, Section 6 concludes this paper.

2. Explanatory factors for energy rules diffusion

Introducing liberalisation in monopoly sectors through restructuring (unbundling), competition (wholesale market), and regulation (TPA regime and establishing IRAs) is a common feature of the *regulatory state* (Majone 1997). These are the results of the *globalisation of regulation* (Levi-Faur 2005): the worldwide spread of rules and principles on energy sector management.

The starting point of this analysis is that the EU is trying to establish a shared regulatory framework for the energy sector that replicates in the neighbouring countries the model of "domestic" regulation as it has been defined since the mid-1990s and its evolution until the Third Package adopted in 2009. The EU promotes itself as a regulatory power *beyond* its own borders (Schimmelfennig 2009) and thereby tries to overcome the limits of the external energy policy.

The external energy policy is questioned by scholars because of the Member States' divergent interests and the persistence of national sovereignty in energy supply decisions (Andoura and Végh 2009). First, the external energy policy is defined as one policy that lacks effectiveness considering the constitutional limits of EU foreign actions and competences on energy, as well as the consequent missing EU bargaining power at the international level (Checchi, Behrens, Egenhofer, 2009). Second, the difficulty of integrating the security of supply, market liberalisation, and environmental issues further limits the external projection of the EU energy policy. However, despite these critical aspects, the EU focuses more on the external dimensions of energy today, especially as a domestic energy market is defined.

The current framework of cooperation, the UfM, may favour overcoming such limits by focusing on functional integration at the level of sectorial issues of cooperation. While, on the one hand, there are also some doubts as to the impact of the sectorial governance on the good governance of the partner countries, on the other hand, this framework proposes a time-specific political context that allows specific projects to be worked on, such as solar energy, as the only feasible approach to Euro-Mediterranean cooperation (Bicchi 2011).

In addition to the rules promoted by the EU through its direct involvement (top-down rules promotion), approaches that are directed at favouring MENA involvement in the definition of the Euro-Mediterranean shared regulatory framework on energy should be recommended—in particular, approaches that specifically consider common interests for managing the current and future deployment of renewable energies. To achieve a Euro-Mediterranean shared regulatory framework, MENA domestic institutional variables need to be considered.

To be effective, rules promoted by international actors should be adopted and implemented in the countries' domestic system. Rules change is possible when there is some degree of incompatibility between the rule promoter's model of regulation – the EU energy acquis – and the domestic model that pushes for adaptation. Second, the actors should favour rules change (Börzel and Risse 2003). Thus, in addition to the presence of a top-down pressure for rules adoption, domestic pressures for rules change should be taken into account. Under this rationale, the institutional background (North,

1990; Levy and Spiller, 1994) of selected countries reveals the reasons why the promoted rules may be adopted and implemented with different degrees of effectiveness.

Analysing the elements of the *acquis communautaire* on energy promoted in the Mediterranean region is beneficial for explaining what Radaelli (2005) defines as the phenomena of "*diffusion without convergence*". Moreover, with regards to regulation and regulatory impact assessment, recent studies confirm the importance of domestic political variables (Peci and Sobral 2011) as well as "*the role of policymakers*' *ideological legacies in explaining variation in rules adoption*" (Gallardo and Murillo 2011). The institutional environment, indeed, can create a truly effective process for rules convergence among countries engaged in the same frameworks of cooperation.

The following paragraphs illustrate the main hypotheses associated with the three potential explanations for rules promotion and adoption, as derived from previous studies on EU external governance methods and from the institutional economics literature. The first paragraph considers EU hierarchical – top-down – pressure. The hierarchy mode of rules promotion refers to the EU's rules promotion within the Euro-Mediterranean frameworks of cooperation, which have been developing since the mid-1990s. The incentives mechanisms provided by the EU initiatives, thus, are considered to be particularly relevant. The second explanatory factor, network pressure for rules change, analyses the socialisation mechanisms within networking initiatives. By analysing the perception of MedReg, which is conceived within this work as a model of network governance sponsored by the EU, the EU's indirect pressure for rules change is assessed. Third and finally, we consider the domestic – bottom-up – pressures for rules change. This type of pressure refers to the MENA's voluntary adherence to the EU model for the organisation of the energy sector. This factor conceives of the countries' executives as central actors in rules change.

2.1 Hierarchy pressure

The literature on EU external governance focuses on the external diffusion of the EU *acquis*, or part of it, due to the pressure applied by the EU in its immediate neighbourhood (Lavenex and Schimmelfennig 2009). The replication of the EU system in the neighbouring countries, as well as the achievement of a Euro-Mediterranean Energy Community, is the declared outcome of the promoted process of regional integration. Furthermore, this type of integration is expected to be *differentiated* (Lavenex, 2004) for the various countries due to their diverse relationships with the EU and their varying degrees of involvement in the EU initiatives. The direct pressure, also described by the literature on EU external governance as a hierarchy mode of governance, is very close to the cases of *Europeanisation*.

As stressed by Radaelli (2003), Europeanisation is a pervasive process consisting of the diffusion and implementation of formal and informal rules and procedures emanating from the EU and incorporated into the domestic discourse and into public policies. In the case of the MENA countries, the diffusion of the EU rules occurs in the absence of membership linkages, and with the sole exception of Turkey, whose membership status is currently deadlocked, the countries considered in our analysis are only linked with the EU through partnership programmes. However, the current framework of Euro-Mediterranean cooperation may favour the spread of European rules through the implementation of incentive mechanisms.

Incentives, included in the signed APs, primarily refer to conditionality measures. Linking the concession of funds and technical assistance to the adoption of political and economic reforms is how conditionality was supposed to work. However, the conditional concession of funds has never been invoked (Stahn and van Hüllen 2007), such as in the case of the Governance Facility funds. Established in 2005, funds were allocated only in 2008 for Morocco without verifying eventual improvements on democracy, respect for human rights, and rule of law (European Commission 2008). In the Egyptian case, the EU did not react to the increased authoritarianism of President Mubarak following the Constitutional reform of 2007 adopted on the basis of the 2005 electoral results. For the first time, the political affirmation of major promoters of political liberalisation, such as Al Ghad and Kifaya, was registered. Despite the political reactions to increased authoritarianism, the concession of funds under the ENP was not interrupted.

As previous studies prove, conditionality works only if "the EU offers a membership perspective in return for political reform" (Schimmelfennig and Scholtz, 2008). Therefore, we may expect that the quest for rules change through hierarchy modes of governance is not as effective in the MENA case, while new forms of horizontal flexible integration through networks of governance may allow integration beyond conditionality (Lavenex 2008).

2.2 Network pressure

Usually recognised as being between the top-down and bottom-up methods, the indirect mode of rules diffusion refers to all those *new* modes of governance (Eberlein and Kerwer 2002) that are generally driven by "*voluntarism and inclusion mechanisms*" (Héritier 2002), such as networks.

Network forms of cooperation are described as the most promising forms, specifically in those cases in which strong interdependencies between actors exist. Contrary to the top-down explanations, networking cooperation allows the MENA countries to act not as passive beneficiaries of particular promoted rules but, instead, as active participants in the rules definition.

Thus, networks may facilitate the emergence of a shared regulatory framework by virtue of mediation processes among actors instead of through top-down diffusion or simple imitation. To ensure that indirect cooperation functions, it is necessary to put networks, shared frameworks of action and shared regulatory frameworks into place. In this manner, networks of governance are "*made up of organisations which need to exchange resources to achieve their objectives*" (Rhodes 1996). Shared processes for decision making usually characterise networks, which tend to develop their own "*internal relational rationality*" to manage complex situations (Ladeur 2004). Moreover, the literature on EU external governance views all actors within the networks as being formally equal, but it also recognises that power asymmetries may exist. The same literature affirms that networks do not produce binding rules but *mutual agreements* and often *prescribe procedural modes of interaction rather than final policy solutions* (Lavenex and Schimmelfennig 2009).

With special attention to networks, we focus on the case of MedReg. Created in 2006 as a form of cooperation among Mediterranean regulators, then supported by the EU, the association is registered as a non-profit association under Italian law, and its Secretariat is based in Milan. Although still dependent upon EU financial sources, MedReg is a membership-based association³. The association demonstrates the characteristics identified by Rhodes (1996) for networks: voluntary cooperation and membership. The members are interdependent authorities, as even authorities of EU Member States are taking part. MedReg may be taken as a new case of the network governance of energy in the Mediterranean basin due to the defined coordination structure and the commitments of the participating countries. Contrary to experiences such as MEDELEC and OME (see Section 5, 5.3), MedReg shows an overall and long-term vision for energy development in the Mediterranean basin.

To some extent, MedReg appears to be characterised by *interdependent and continuously interacting* (Rhodes 1996) members. Although dependent on the support of states, MedReg is self-governing, with a network secretariat, and is characterised by internal coordination procedures. There has been a recent attempt to achieve coordination, although it has been difficult to confirm that, for now, self-organising practices and the members' co-definition of rules properly exist. On the contrary, we expect that the problems related to a young and very flexible structure of coordination may limit, to a certain extent, the effectiveness of MedReg's actions and, consequently, the EU's indirect pressure for rules change.

2.3 Bottom-up pressure

³ MedReg includes Albania, Algeria, the Palestinian Authority, Bosnia-Herzegovina, Cyprus, Croatia, Egypt, France, Jordan, Greece, Israel, Italy, Malta, Morocco, Montenegro, Portugal, Slovenia, Spain, Tunisia and Turkey

Bottom-up pressure refers to the domestic pressure for rules change. When effectual, such pressure may favour the adoption of a system of rules that are consolidated and recognised to be effective at an international level. Consequently, bottom-up pressure facilitates rules convergence among the countries involved within the same framework of cooperation.

Convergence, thus, depends on the countries' voluntary approximation towards a defined system of rules (Barbé *et al.* 2009). The justification behind convergence may be the need to ensure that the regulatory framework of a country is credible. For this reason, in this analysis, the countries in which an IRA has been established and information is available are considered first. Moreover, the existence of a TPA regime, network unbundling, and an incentive-based tariff system have been taken into consideration as indicators of the commitment towards energy sector liberalisation by the MENA incumbents.

A persistent patronage system and state-owned assets raise doubts about the effectiveness of the agencies' independence. Having established an IRA before implementing the sector's liberalisation reforms, for example, in Algeria, Egypt and Turkey, may result in a sort of *mimickery* of the recommended regulatory standard; a behaviour that does not correspond to strong regulatory commitments. At the same time, we may expect that the pivotal actors deciding whether to adopt a specific system of rules represent the executive powers; this is due to the permanence in power of the executive parties and leaders during the 1990 – 2010 period, despite political elections (i.e., Algeria and Egypt) and the non-elected nature of the executive power (i.e., Jordan). Turkey, a Parliamentary Republic, is the sole country where an alternation of the parties in power may be observed; nonetheless, the executive's veto power is stronger than the legislative and judiciary one (Freedom House - Turkey, 2011).

Executives, thus, are the reference point of EU officials. Without their commitments, no rules change is possible; at the same time, stressing the role of executives and their economic branch further strengthens the consolidated systems of power such as those already verified for the EU member states (Börzel and Sprungk 2007) and the eastern neighbouring countries (Petersen 2012; Wolczuk 2009).

To clarify the content of the promoted EU energy rules, the next section addresses the evolution of the EU regulatory experience in the energy sector.

3. The EU model for sector organisation and the rationale behind it

The EU liberalisation process was primarily a political decision based on the need to guarantee the freedom of enterprise (the production side of the market) and the freedom of choice (the consumer side) and to foster effective competition within the Union. The process of liberalisation and the further integration of the energy market implied the unbundling of networks and the independence of regulators from both the state and the energy industry. This process of progressive liberalisation can be described as three *waves*, which refer to the three directives reported in table 1. The table shows the parallel development of electricity and gas liberalisation. The table also shows how progressively the role of the regulators emerges and the unbundling transmission and distribution operators acquire relevance. The existing regulatory framework is the final result of these gradual changes. When a sector inquiry by the European Directorate on Competition (DG COMP) in 2005 showed that dominant positions were still at stake and that a further wave of liberalisation was required, the definition of a "third package" of directives was begun.

The current package focuses on the independence of system operators; the strengthened role and independence of national regulators; the establishment of ENTSO - the European association of transmission and system operators for both electricity and gas; and the establishment of ACER - the agency for the cooperation of energy regulators.

The principles of transparency and liberalisation, such as network unbundling, the TPA regime, and the IRA establishment, can also be identified in documents regarding Euro-Mediterranean cooperation. With regards to the southern neighbouring countries, the EU certainly tried to extend the internal energy market (IEM) principles through a

policy *mirroring* domestic experience and following the strategy for Central Europe (Matláry 1995, p. 55). The first attempt to define an Energy Charter using the model of the Energy Charter Treaty was unsuccessful. Then, the project of regional framework of cooperation emerged, and the Euro-Mediterranean Energy Forum was launched in 1996.

Although very little has been achieved during the second half of the 1990s in terms of EU rules adoption by Mediterranean countries, it should be stressed that energy remains one of the main pillars of the EU cooperation programs in the region. The communication "On the Development of Energy Policy for the Enlarged EU, its Neighbours and Partner Countries" (European Commission 2003b) conceives energy cooperation in terms of establishing a common regulatory framework for an integrated Euro-Mediterranean energy market. Thus, in terms of rules promotion, the content of the EU action, directed at energy market integration between the two shores of the Mediterranean Sea, may be summarised as follows: the promotion of network unbundling, a regulated TPA regime, the establishment of IRAs, and an incentive based tariff system. IRAs are most likely one of the most tangible outcomes of market reforms as concerns the utilities industry. The OECD describes these new entities as "one of the most widespread institutions of modern regulatory governance" (OECD 2002). The agencies' autonomy and independence are signs of the credibility of the incumbents' commitment not to undermine the independence of the regulated sector (Trillas and Montoya 2011). Thus, to assure the credibility of the liberalisation process, the inception of IRAs is fundamental (Levy and Spiller, 1994; Majone 1996) together with a guarantee to avoid the political capture of these authorities. The regulatory agencies were given the mandate to regulate the activity of network industries and to discipline the potential conflict of interests between the government and the state controlled utilities. The IRAs should operate with their own specialised staff and detailed tasks, independently of ministries or government departments. The European Commission, especially, urged member states' governments to establish formally independent regulators in the energy industry, albeit leaving the decision regarding the definition and the scope of the delegated powers to the national executives. Typically, the delegated regulatory tasks involve price setting decisions at both the retail and the wholesale level - whenever access to essential facilities is needed to develop market competition – the definition of entry conditions, the imposition of quality standards and all of the technical rules related to the use of or access to existing infrastructures. An assessment of the roles and functions of MENA IRAs is therefore pivotal to understanding the degree of diffusion for the EU promoted model of liberalisation, with the IRAs' autonomy and independence being fundamental to effective unbundling, non-discrimination among utility companies, and the capability to facilitate the entrance of new, private operators.

4. Perception Survey Method⁴

To analyse the perception of rules promotion, data have been collected through a survey directed at regulators from Algeria, Egypt, Jordan and Turkey. The questionnaire investigates the respondents' perception of the role that both the EU and MedReg have played in terms of rules adoption. Some questions are also dedicated to the bottom-up pressure.

The survey is based on the literature on EU external governance and considers the eventual socialisation mechanisms among countries in the same region (Lavenex and Schimmelfennig 2009; Schimmelfennig and Sedelmeier 2005; Gilardi 2005a, b). The survey has been structured following OECD (2012) recommendations on measuring regulatory performance through perception surveys. Specifically, we take care to avoid questions that suggest answers and question priming, which may happen when a previous question suggests the answer to the subsequent one. The survey has been tested by experts in the European University Institute – the Florence School of Regulation, the Oxford Energy Institute, and the Italian International Affairs Institute.

The majority of the questions asked the respondents to express an evaluation of the considered elements on a scale from 0 to 5. To place the countries along a continuum between 0 and 1, all questions using the 0 to 5 scale adopt the

⁴ The survey text is available from the authors upon request

following coding system: 5=1.00; 4=0.75; 3=0.50; 2 and 1=0.25; 0=0. The reported results do not confirm the tendency stressed by the OECD (2012), which states that respondents are shown to have median responses (3) on a scale from 0 to 5. Thus, this is the first confirmation that the answers that we have obtained are informed ones.

With reference to the regulatory agencies involved in the study, information is provided in table 2. All of the countries involved fulfilled our selection criteria of having established an IRA and having adopted, to a certain extent, sector unbundling and a TPA regime.

Table 3 reports the details of the agency organisation models as they emerged through the analysis of existing literature and the agencies' involvement in managing the aforementioned aspects of the energy sector. The country model of unbundling, TPA and tariff setting is briefly reported in table 4; detailed information is only available for the electricity sector. A TPA regime has been adopted in Jordan and Turkey. Furthermore, tariff setting, a key regulatory tool on which independence and autonomy of regulatory agencies may be assessed, is managed directly by executives in the Algerian and Egyptian case and by IRAs only in the Jordanian and Turkish cases.

The study undertaken is of a qualitative nature. The obtained answers have been provided by respondents who have already taken part in training sessions arranged by MedReg. Thus, the respondents were aware of both the networks' roles and competences as well as the EU programs for cooperation.

Additionally, the data collected have been completed using semi-structured interviews designed according to the conceptual background on methods and pressures for rules promotion described in Section 2. The interviews follow the same structure as the survey, although the nature of the semi-structured questions allowed the respondents more freedom to justify their answers. Table 5 illustrates the number of respondents to the survey and the number of semi-structured interviews. The officers of Egyptian (5 respondents, including the Agency Managing Director) and Algerian (5 respondents) regulatory agencies were interviewed in May 2011 during the Florence School of Regulator and MedReg training seminar dedicated to Mediterranean energy regulators.

It should be stressed that the interviews, as well as survey results, do not permit different answers to emerge from within the same organisation. The justification for the missing variation is twofold. First, all respondents were from primarily state-controlled organisations; thus, we assume that respondents cannot freely express their own opinion but must express the opinion of the agency. Second, for those countries for which interviews are not available, it should be stressed that the officers involved were from agencies' communication offices, which generally report the position and the views of the agency instead of the officers' personal views.

5. Perception Survey Results

5.1 Hierarchy pressure

To measure the EU's role as an energy rules promoter, the regulators have been asked to express an evaluation on a scale from 0 to 5 of the EU's top-down pressure compared to the EU's indirect pressure. The question asked is the following: "On a scale from 0 to 5, how do you perceive the EU's (i.e., the European Commission Directorate for Energy, primarily the EU Development Cooperation Office) methods for energy rules promotion?" The options provided were also explained as follows:

- Direct pressure, top-down;
- Indirect, horizontal, participatory based method;
- Non-existent.

The respondents were asked to provide an evaluation with regards to all of the options provided.

The answers to the first question do not show any variation between how the EU's direct and indirect pressure are perceived by the MENA regulators. All of the respondents gave a score of 4 to both direct and indirect pressure.

In this regards, the survey has a control question, which allows the meaning of direct and indirect pressure applied by the EU to be further clarified. The second question of the survey asked if, in the opinion of respondents, "the EU action in the energy sector is more effective when acting directly in bilateral relations or when promoting energy rules indirectly through regulatory networks, such as MedReg?" All of the respondents expressed a clear preference for the "acting directly in bilateral relations" option. Considering that the respondents are governmental actors, it is not surprising that they prefer the direct involvement of the EU Directorates.

The role of the EU's direct rules promotion has also been investigated in regards to specific issues of energy regulation. Specifically, "On a scale from 0 to 5, how would you say that the cooperation with the EU impacts the following sectors in terms of rules adoption or rules change?" The question refers to the setting of tariffs, retail market competition, sector unbundling, TPA regimes, energy efficiency programs, incentives for renewables, IRA political independence, attention to vulnerable customers, and IRA stakeholder independence. Figure 2 shows the differences in the MENA regulators' perception for each issue considered.

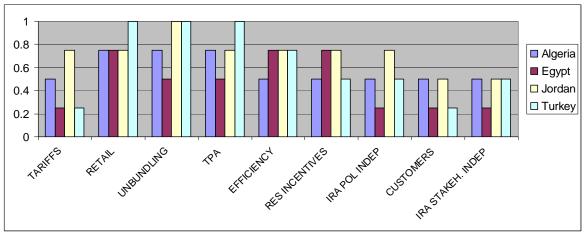


Figure 1: EU Rle on Rules Adoption

The EU influence is shown to be relevant for those aspects that are closely related to the market (retail, tariff setting) as well as to the sector unbundling and TPA. The EU influence on the independence of IRAs, both from political power and stakeholders, does not appear to be effective.

The section on the EU rules promotion method concludes with the two following questions. First, the respondents must express **"On a scale from 0 to 5 their agreement on the following:**

- Rules for energy sector organisation have been very often based on the EU model;
- Energy sector organisation has been based on internationally recognised rules and principles (IS);
- EU energy rules are very often mentioned in the discourse of domestic decision makers;
- Domestic decision makers tend to conform their behaviour, with regards to the energy sector, with the recommendations of the EU".

This question is aimed at assessing the degree that the MENA system adheres to the model recommended by the EU, illustrating whether the EU regulations are potentially relevant for the domestic system. The answers to this question provide a measure of the potential *Europeanisation* without membership. In this regard, we refer to how Europeanisation is considered in the seminal work of Schimmelfennig and Sedelmeier (2005). The study considers not just *formal* rules adoption but also the *behavioural* and *discursive* concept of rules adoption. The former refers to rules-conforming behaviour and the latter to the "*incorporation of a rule as a positive reference into discourse among domestic actors*" (Schimmelfennig and Sedelmeier 2005, p.8).

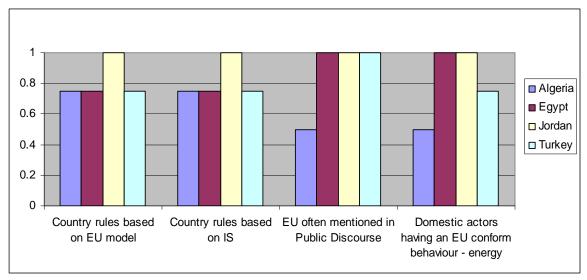


Figure 2: Domestic actors conform to EU energy behaviour

As shown in Figure 2, the establishment of a framework of cooperation helps to expand the EU system of rules and even has a positive impact on the behaviour of the domestic actors.

The EU system clearly proves to be relevant for Egypt. The interviews with Egyptian regulators confirm the intention of the policy makers to adopt a system as similar as possible to the EU one.

Jordan's survey answers confirm their high appreciation for EU rules and international standards.

Turkey partially affirms the arguments with regard to the Europeanisation hypothesis and the relevance of the membership perspective for the domestic actors' behaviour. Although the EU system is often quoted in public discourse, the domestic system does not entirely mesh with the EU system, and even the behaviour of the domestic actors does not conform to the recommendations of the Union.

Algeria, indeed, not being a part of the APs and not being directly involved in EU bilateral initiatives, exemplifies the low relevance of the EU in domestic public discourse as well as to the domestic actors' behaviour. Indeed, being a major energy producer, Algeria most likely has different preferences regarding the energy sector regulatory setting. For instance, unbundling may appear to be less conceivable for Algeria's incumbent operator, Sonatrach.

Interviews with the officers from the Algerian regulatory agency confirm that the rules for the electricity sector have been adopted primarily because of the general consensus on their effectiveness more than because of the EU recommendation.

The differences among the countries observed in this study, especially when considering specific regulatory aspects, confirm the different perceptions of the EU as a rules promoter as well the variation in the countries' energy interests. Such variation determines the differentiation of the acquis to be adopted (Escribano 2010).

5.2 Network pressure

Considering network-based rules diffusion, we asked the respondents to compare indirect rules promotion, primarily through the MedReg network, with the EU's hierarchical pressure. In addition to MedReg membership, we consider the perception of the role that the network may play for the same regulatory aspects investigated in terms of the EU role (see Fig. 1). Specifically, we asked "On a scale from 0 to 5, how would you say that the cooperation within MedReg impacts the following in terms of rules adoption or rules change?"

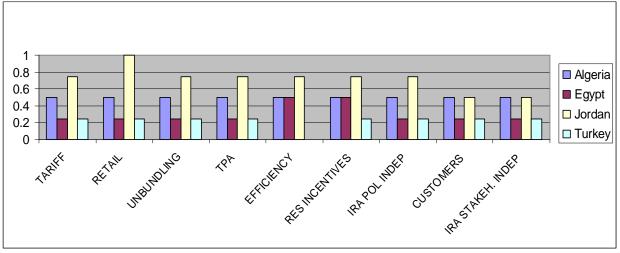


Figure 3: MedReg Role on Rules Adoption

With the exception of Jordan, the MENA countries do not give high scores to MedReg's actions, specifically in the regulatory sector as well as in the promotion of the IRAs' independence. On the contrary, these results show the critical aspects associated with networks and networking governance.

To verify whether MedReg is observed as an autonomous network, an additional question investigates the presence of the elements for a proper governance network as identified by the literature (see Section 2.2). We asked "**On a scale from 0 to 5, how would you say that the following options characterise members' relations within MedReg?**" The options provided and explained in the survey text were as follows:

- A participatory model of decision-making;
- Codified Procedural Rules (with regards to the definition of meeting agendas; voting systems, etc.);
- Monitoring and Control Procedures (with regards to principles and rules to be implemented in the energy sector);
- Resource sharing (sharing primarily expertise and know-how).

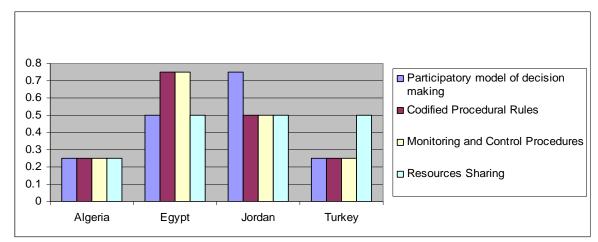


Figure 4: MedReg as a Network Governance Model

As shown in Figure 4, the answers are, on average, between 2 and 3 for all options, with the exception of the Egyptian regulators, who give a value of 4 to the second and third options.

These data confirm the weaknesses of the network-based initiatives as perceived by our respondents. As proven by recent work on EU domestic cases of network governance (Casey and Lawless 2011), the networks are weakened by their perceived lack of legitimacy, by the network participants, and by their high structural flexibility, which limits effective coordination within the network. Further investigation may reveal whether such a limit also exists for MedReg.

The perception of the respondents in terms of the other international actors, regional networks and domestic factors with regards to energy rules adoption was also investigated. On a scale from 0 to 5, the respondents were asked to compare the role of the three types of actors: **other international actors**, with the exception of the EU bodies previously investigated; **networks**, MedReg included; and **domestic actors**.

Figure 5 shows the results with regard to "*other international actors*". European Union members have been included to measure the extent to which the perception of EU countries differs compared to the perception of the EU as a single actor. Moreover, the question also refers to specific European countries that are relevant in terms of Mediterranean politics and energy interests (such as Germany for the Desertec initiative and France for the UfM). The reference to specific European countries have been included to consider the different perceptions that the respondents may have of country-specific foreign energy policies compared to the EU one; the latter is often criticised for not being the expression of "one single voice".

In this regard, only Egypt answered all of the provided options; Algeria replied only to the WTO and IEA, assigning them each a score of 1. Turkey gave a 1 to the UN system, a 3 to the WTO, and a 4 to the IEA. Emerging powers, such as China, are not perceived as being relevant by our respondents despite recent interest in Northern Africa's resources.

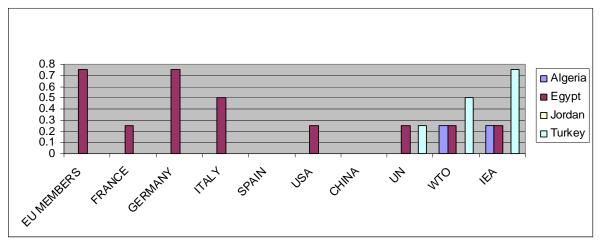


Figure 5: Perception of Other International Actors Roles

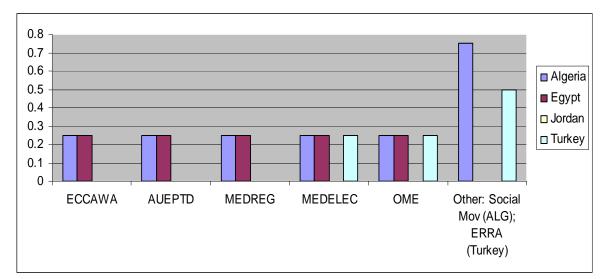


Figure 6: Regional networks as energy rules promoters

Note: ECCAWA, Economic Social Committee for Arab Countries in West Asia, UN system.

AUPTDE, Arab Union for Electricity Producers, Transmitters and Distributors, based in Amman Jordan.

MEDELEC, Mediterranean Committee for Electricity, grouping together the entire Mediterranean electrical industry.

OME, Mediterranean Energy Observatory, non-profit research centre grouping together energy industries of the Mediterranean. ERRA, Energy Regulators Regional Association, a network of regulatory bodies from the Central European and Eurasian region, with affiliates from Africa, Asia, the Middle East and the USA.

The same question and the same scale of preferences have been used with regard to the *regional networks of cooperation*, focusing on the Mediterranean and the Middle East. As Figure 6 shows, the weight of these networks in the respondents' perception is very low. In reference to our case of network governance, MedReg, low scores were also registered, while the other networks appear to perform better (such as ERRA for Turkish respondents).

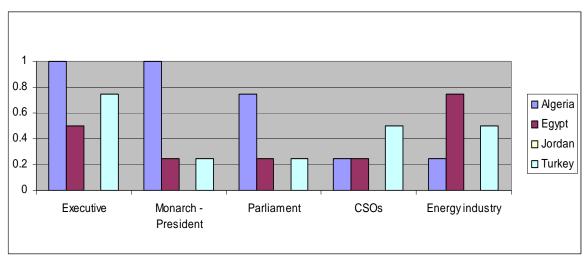


Figure 7: Role of Domestic Actors

Finally, the role of bottom-up pressure has been analysed. Although there were few replies, the **bottom-up pressure for rules change** (Figure 7) emerges as the most relevant in the region, with executive power as the actor pushing for effective rules adoption and implementation. The Turkish respondents grant a high level of importance to Civil Society Organisations (CSOs) and also to the energy industry, showing the extent of the difference between the veto players and the executive. The higher score given to the Energy Industry by Egypt demonstrates that the industry stakeholders are relevant veto players, more so than the executive power. Nonetheless, one should be aware that the MENA energy industry is primarily state-owned. Thus, the existing continuity between the industry board of directors and the executive powers is the institutional factor that primarily affects the countries' regulatory framework. These results, jointly with the findings provided in Figure 2, reveal the major role played by the domestic institutional environment in the sector's reform projects as well as the IRAs independence both from political power and the energy stakeholders. Furthermore, these results confirm the previous results for the EU rules promotion and strengthened the executive powers quoted in Section 2, 2.3.

6. Conclusion

This study illustrates the findings of a survey addressed to MENA regulators investigating the perception of three sources of pressure for rules change: hierarchy, network and bottom-up. Although only based on four countries, the sample provides a clear picture from the MENA countries that have established an IRA.

With regard to our results, when comparing the direct and indirect pressures, the results confirm that the respondents perceive the EU direct rules promotion to be more effective. Although the study is limited in the number of regulatory agencies involved, our results question the definition of network governance as one of the most promising mode of rules diffusion. Indeed, the presence of the elements of proper network governance does not assure that MedReg is perceived as being effective in terms of promoting a shared and coordinated regulatory framework in the region.

The same results are observed when MedReg is compared to other networks. In the respondents' perception, other networks, such as ERRA, are perceived to be more effective. The latter pursues the coordination of a different system of rules through training and knowledge exchange; the MedReg primarily develops studies and policy recommendations. The

same objective, thus, is pursued through different methods. How much these differences are perceived by the regulators remains to be investigated.

Eventually, when the third explanatory factor, bottom-up pressure, is included in the analysis, the executives emerge as the most important actors for deciding the extent of the adoption of particular regulatory standards. Domestic institutions are, as expected, essential for effective and credible regulatory commitments as well as for the independence of IRAs. In contexts such as MENA, characterised by long-lasting regimes, the executive in charge is considered to be the sole decision maker. Our findings show that decisions on adopting and implementing sectoral reforms suffer vetoes from the energy stakeholders' industries. Moreover, external rules promote, both from the top-down and at the network level, risk ineffectiveness when concrete incentives for rules change are missing; in the best case scenario, the result may be a pure cosmetic change, such as in the case of the regulatory agencies missing independence.

European direct pressure generally plays a role at the country level but, as given in the literature, the incentives for rule change (i.e., conditionality measures) are rarely implemented. The domestic actors have a key role in rules convergence, which is often the result of voluntary approximation to a regulatory model such as that promoted by the EU. Considering the relevance of hierarchical pressure, as well as the role of domestic actors, a new approach to energy rules promotion should to be adopted. Consistent with previous works on the EU's role as the energy rules promoter in the neighbourhood countries, such as Escribano (2010) and Darbouche (2011), the framework of the EU action needs to be defined not at a country-specific, but at an energy corridor/ level. Following this approach, such as in the case of the newly established MED-TSO – Association of Mediterranean Transmission System Operators – it is not differences at the country level that matter but shared interests at the corridor level. This altered approach may also allow new, and more coherent, incentives for rule adoption to emerge.

Tables

Table 1 EU legislative sources: gas and electricity sector

DIRECTIVE 96/92/EC for Electricity DIRECTIVE 98/30/EC for Gas	DIRECTIVE 2003/54/EC for Electricity DIRECTIVE 2003/55/EC for Gas	DIRECTIVE 2009/72/EC for Electricity DIRECTIVE 2009/73/EC for Gas
Generation: principle of non-discrimination; Authorisation procedure (art. 4 DIR. 98/30/EC). For electricity sector: possibility of tendering (art. 4, DIR. 96/92/EC)	Generation: Tendering procedure for new capacity for the electricity sector (art.7 DIR. 2003/54/EC). Authorisation procedure respecting non-discrimination principle, for gas (art. 4 DIR. 2003/55/EC)	Generation: Tendering procedure for the electricity sector (art.8 DIR. 2009/72/EC) Authorisation procedure respecting non- discrimination principle, for gas (art. 4 DIR. 2009/73/EC)
TSO: Unbundling: of accounts (art.10 DIR. 96/92/EC)	TSO: Unbundling: independent, at least in terms of its legal form, organisation and decision making from other activities (art.10, DIR. 2003/54/EC; art. 9 DIR. 2003/55/EC)	TSO Unbundling: independent, at least in terms of its legal form, organisation and decision making from other activities (art.9 DIR. 2009/72/EC; art.9 DIR. 2009/73/EC)
DSOs: Unbundling of accounts (art.14 DIR. 96/92/EC)	DSOs Unbundling: legal, organisation and decision making (art.15 DIR. 2003/54/EC; art.13 DIR. 2003/55/EC)	DSOs Unbundling: legal, organisation and decision making (art.26 DIR. 2009/72/EC; art.26 DIR. 2009/73/EC)
TPA regime: regulated, negotiated, single buyer (art.15-18 DIR. 96/92/EC; art. 14-16 DIR. 98/30/EC)	TPA regime: regulated, based on public tariffs (art. 20 DIR. 2003/54/EC; art. 18 DIR. 2003/55/EC)	TPA regime: regulated, based on public tariffs (art. 32 DIR. 2009/72/EC; art.32 DIR. 2009/73/EC)
IRA: non-specified	IRA designation (art. 23 DIR. 2003/54/EC; art.25 DIR. 2003/55/EC)	IRA strengthened role and powers (chapter IX DIR. 2009/72/EC; chapter VIII DIR. 2009/73/EC)

† Note: TSO stands for Transmission System Operator; DSO stands for Distribution System Operator

		igency fucition		
Country	IRA Name	IRA Acronym	Year	Legislative source
Algeria	Electricity and Gas Regulatory Commission	CREG	2002	Law No 02-01, February 5, 2002 on electricity and gas distribution
Algeria	Autorité de Régulation des Hydrocarbures	ARH	NP*	NP*
Egypt	Electric Utility and Consumer Protection Regulatory Agency	EGYPTERA	2001	Presidential Decree no. 339 for reorganising the authority
Jordan	Electricity Regulatory Commission	ERC	2001	Council of Ministers decision issued on 15 January 2001
Turkey	Energy Market Regulatory Authority	EMRA	2001	Electricity Market Law, 4628, 2001

Table 2 Agency identification

Source: Authors' survey on the electricity sector of MENA countries and the role of international cooperation; agency statutes and laws *NOTE - NA: information not available

Country	IRA Acronym CREG	IRA managerial body* (RC; SHR) RC - Board of	IRA under incumbents' control	IRA advisory body, partially independent	IRA COMPETENCES **: UNBUNDLING	IRA COMPETENCES **: TPA	IRA COMPETENCES **: TARIFF SETTING
Aigena	CREG	four commissioners	Λ				
Algeria	ARH	RC - Executive Committee President, and 5 Directors	X				
Egypt	EGYPTERA	RC	Х				
Jordan	ERC	RC	Х		Х		Х
Turkey	EMRA	RC		X	X	2007.1	X

Table 3 Agency organisation and role managing the energy sector

Source: Country Reports from the Euro-Mediterranean Ministerial Conference, Limassol 2007, have been considered for the analysis of the IRAs' competences for energy. Information on their organisation has been requested during interviews conducted on May 2011 and, for Jordan and Turkey primarily, in the survey text.

*NOTE: RC model – Regulatory Council, Chairman plus Council members and Regulatory Staff; SHR model - Single Head Regulator, one President plus Regulatory staff. When available, additional information is provided in the table.

** **NOTE**: Competences are reported only when indicated as exclusive competences of the agency. Shared competences or issues on which the agency has only a consultative role are not provided.

Country	UNBUNDLING	TPA	TARIFF SETTING
Algeria	FUNCTIONAL	Introduced in	Fixed by the Prime
	separation	2002	Minister
	between		
	generation,		
	transport and		
	distribution in the		
	electricity sector		
Egypt	FUNCTIONAL	NA	Defined by the
	missing detailed		Government.
	information		
Jordan	Full ownership	Regulated	NA
	unbundling	regime	
	achieved in 1999		
Turkey	Sector unbundled	Regulated	Approved by IRA
		regime	

Table 4 Electricity sector degree of openness

Source: Country Reports from the Euro-Mediterranean Ministerial Conference, Limassol 2007 *NOTE - NA: information not available

Table 5 Respondents					
Country	IRA Acronym	Survey Respondents	Interview Respondents		
Algeria	CREG	1	3		
-					
Algeria	ARH	3	2		
ingena		5	-		
Egypt	EGYPTERA	1	5		
Jordan	ERC	1	NA*		
Turkey	EMRA	1	NA*		

*NOTE - NA: information not available. These agencies did not take part in MedReg FSR Training on May 2011 when other interviews were conducted

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