EU merger control after the reform: more economics, but still more than economics

Abstract

This paper investigates the effects of the ‘more economic approach’ (‘MEA’) on the European Commission’s merger decision rule. Whether and how the MEA has affected EU merger control remains unclear. Earlier studies examined the factors that influence merger decisions either under the old or the new regime without however directly comparing them across regimes. We constructed a database with 125 Phase I decisions covering the years 1995 to 2013. First, we inferred the impact of competition and non-competition factors on the Commission’s merger decision rule for both regimes by way of logistic regressions. Next, we compared estimates to analyse whether the MEA has caused a structural break. We find that the MEA has diminished the role of structural measures of market power in EU merger assessments. However, industrial policy motives still play a significant role in post-reform merger control.

Introduction

This paper investigates the impact of EU merger reform on the Commission’s merger decision rule empirically. Merger control was reformed in 2004 as part of a broader reorientation of EU competition policy towards a ‘more economic approach’ (‘MEA’), after the traditional structuralist approach had attracted heavy criticism. The reform process was intensified when the Court of First Instance annulled three merger decisions on the basis of flawed economic analysis in 2002. Formally, the MEA in merger control includes the replacement of the structuralist dominance test (“DT”) by the more effects-based Significant Impediment of Effective Competition (“SIEC”) test, the introduction of a merger efficiency defence and economics-based merger guidelines.

Yet, more than 10 years into the reform, it is not all that clear whether and how the MEA has influenced EU merger decisions. What matters is the interpretation of ‘dominance’ rather than the substantive test itself (G. Monti, 2007, p. 261). On the one hand, it is argued that the Commission already applied the DT flexibly enough to assess the competitive effects of mergers in terms of prices, output and quality (Boge & Muller, 2002; Heimler, 2008; Lowe, 2002; Röller & De La Mano, 2006).
Indeed, the Horizontal Merger Guidelines (European Commission, 2004, "HGL"), which lay out some general and broadly accepted economic principles, merely commit to paper the Commission’s experience with the assessment of mergers under the old Merger regulation. On the other hand, the new Merger Regulation (recital 6) and the HGL (art. 2) explicitly recall the traditional, structure-based definition of dominance. Moreover, even in recent case law, the European Court of Justice (“ECJ”) denied that consumer harm is necessary for EU competition law to apply and it reconfirmed that competition law should protect the structure of the market. Accordingly, whereas it is evident that the goal of EU merger control is to preserve ‘effective competition’, it remains ambiguous even after the reform whether the term is operationalized in structuralist or welfarist terms.

Our goal is to provide clarity on the meaning of ‘effective competition’ by identifying the factors that influence the chance of the Commission raising serious doubts about the compatibility of a concentration before and after the reform. Merger control is an ex-ante policy instrument. Contrary to art. 101 and 102 cases, the Commission has to make an assessment of future competitive effects of firm behaviour. This inevitably involves uncertainty. Insight in the Commission’s merger decision rule is important for at least two reasons: it preserves economic and legal certainty, and it enables an ex-post evaluation of the quality of merger control.

Earlier empirical research has studied the factors that influence EU merger control. Lindsay, Lecchi, and Williams (2003); Bergman, Jakobsson, and Razo (2005) and Aktas, de Bodt, and Roll (2007) analyse EU merger decisions before the reform; Fernández, Hashi, and Jegers (2008) after the reform. There is broad consensus on the fact that EU competition policy is fairly predictable. Also, competition factors seem to have the expected influence, whereas non-competition factors, except for market integration, do not appear to play an overly important role in merger assessments. To date, Duso, Gugler, and Szücs (2013) is the only empirical study of the comparative effects of EU merger reform. However, as the main focus of their study is the impact of the reform on predictability, Duso et al. only estimate restricted models, which do not allow a full-blown comparison of the factors that influence merger decisions across regimes. Moreover, previous research mostly focuses on the factors that trigger a Phase II investigation. The decision process in Phase I investigations, the vast majority of cases, therefore is under-researched. Yet, a successful merger policy should be sufficiently transparent and predictable to prevent Phase II decisions altogether by proactively influencing the design of mergers and commitments.

We constructed a database with 125 Phase I merger decisions (encompassing 747 horizontally affected relevant markets) covering the years 1995 to 2013. We applied a method developed by McFadden (1975, 1976) to deduce the Commission’s merger decision rule by way of logistic regression models.

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First, an economic model was estimated, which includes (structure- and effect-based) competition variables only. The economic model was then nested into the institutional model, which contains non-competition variables (market integration, sector dummies and other institutional factors) also. The models are tested for both regimes separately. Next, we compared coefficients before and after the reform to analyse whether the MEA has caused a structural break in the Commission’s decision rule.

We find that the MEA has diminished the role of structural measures of market power in EU merger assessments. First, merger policy after the reform is significantly less strict for all combined market share levels. Next, after the reform, ease of entry and the presence of countervailing factors seem to lower the chance of the Commission raising serious doubts even for mergers creating very large firms. These findings suggest a rise in the market share threshold that triggers a presumption of harm. However, both before and after the reform, the model that includes competition as well as non-competition variables better fit the Commission’s decision rule than the model containing competition variables only. Industrial policy motives still seem to play a role in post-reform EU merger control. We conclude that whereas the reform of merger policy has introduced more economics, EU merger control is still about more than economics. Accordingly, the Commission’s interpretation of ‘effective competition’ extends beyond the competitive effects of mergers on consumer welfare.

Section I describes the legal framework of EU merger control and elaborates on the substantive changes that were introduced with the MEA. Section II discusses the competition and non-competition factors that may influence the Commission’s merger decision rule and the expected impact of the reform. Section III reviews previous empirical literature on the factors that influence competition authorities’ decisions. Section IV discusses the methodology. Section V discusses the data collection process and gives sample descriptives. Finally, Section VI discusses the results of the logit regression analyses and the identification of a structural break.

I. EU merger control and the reform towards a more economic approach

Legal basis of EU merger control

In 1989, the European Council adopted the European Community Merger Regulation ("ECMR"), which first authorised a systematic review of concentrations at a European level (Council of the EEC, 1989, reviewed in 1997). It took sixteen years of combined pressure from the Commission, the ECI and a growing cross-border business community for member states to find a consensus (Bulmer, 1994). The ECMR defines concentrations as operations that durably change the structure of the undertakings concerned. The concept covers mergers, acquisitions of control and the establishment of full-function joint ventures (hereinafter “mergers”). The European Commission has exclusive jurisdiction to review mergers with a community dimension, which is determined by global and
community turnover thresholds (‘one-stop shop’ principle). Mergers that reach the thresholds have to be notified prior to implementation. The Commission assesses whether the merger is compatible with the single market in terms of the need to preserve ‘effective competition’ and must place its appraisal within the general framework of the fundamental objectives of the Treaty (Recital 13, ECMR). In applying the substantive test, the Commission should consider whether a concentration will likely result in ‘the development of technical and economic progress’. However, this does not support an explicit balancing of pro- and anticompetitive effects as efficiencies can only be taken into account so far as the concentration ‘does not form an obstacle to competition’ (art. 2(1)(b) ECMR). The analysis is conducted in one or two phases, which are bound by strict deadlines. A phase I investigation needs to be completed within 25 working days, after which the Commission can clear the deal (with or without commitments). If a merger raises serious concerns in terms of its compatibility, an in-depth phase II investigation is launched in which the Commission has up to 90 working days to either clear the merger (with or without commitments) or block it. Firms can challenge the Commission’s decisions in the General Court (“GC”) which exercises a judicial review of the facts and the application of the law to the facts. GC judgments can be appealed to the ECJ on points of law.

The reform of European merger policy started off in 2001 with a Green paper assessing the working of the ECMR (European Commission, 2001, "Green paper"). The Commission considered a reform necessary for its merger review to meet some upcoming challenges that would prompt major corporate reorganisations. These challenges included the introduction of the EMU, the pending enlargement of the Union and the increased pace at which companies, markets and merger control regimes were globalising (Green paper, paras 5-9). While the main layout of European merger review was retained, the Green paper put some jurisdictional, procedural and substantive issues up for discussion. The reform process resulted in a political agreement on a new merger regulation, which entered into force May 1st, 2004 (Council of the EC, 2004, "EUMR"). This article focuses on the substantive dimension of EU merger reform, which is popularly known as the MEA. The MEA refers to a narrowing of the goals of competition policy to consumer welfare only, a greater reliance on industrial economics theories and advanced quantitative techniques to demonstrate the competitive effects of firm behaviour on consumer welfare.4

The ‘more economic approach’ in EU merger control

The Commission initially had little intention to introduce substantial substantive changes to merger policy. However, in 2002, the CFI annulled three merger decisions on the basis of flawed economic analysis.5 The defeat in court was used as an ‘opportunity for even deeper reform than originally envisaged’ (M. Monti, 2002b, p. 3). Formally, the MEA in EU merger policy consists of a new

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4 For a definition of the economic approach, see fn.1.
5 See fn. 2.
substantive test, an efficiency defence and the adoption of economics-based merger guidelines. Next, a Chief Competition Economist and a team of high-level economists were appointed to enhance DG Competition’s economic capacities. At the rhetorical level, the MEA was accompanied by frequent references by Commission officials to ‘consumer welfare’ as the cornerstone of EU competition policy.

The new substantive test is the most prominent element of EU merger reform. A structure-based approach, which built on the notion of dominance, guided the first decennia of EU merger regime. The DT declared incompatible with the common market ‘concentrations which create or strengthen a dominant position as a result of which effective competition would be significantly impeded’ (art. 2(3), ECMR, emphasis added). In the nineties, the concept of dominance was expanded to include collective dominance. From then on, the DT could catch oligopoly mergers that would not create or strengthen a dominant firm, but that would produce a market structure prone to tacit collusion (Vickers, 2004, p. 458). The exact interpretation of the DT was controversial. Officially, the CFI treated the DT as a cumulative two-tier test for which dominance was a necessary, but not a sufficient condition for finding a significant impediment of competition. However, in a later judgement, the CFI stated that ‘the creation or strengthening of a dominant position may in itself have the consequence that competition is significantly impeded’. The Green paper invited the competition community to reflect on the relative merits of the DT and a Substantial Lessening of Competition ("SLC") test as used e.g. by the US antitrust authorities. The consultation process revealed that the competition community thought an SLC test more suitable in providing effective control in non-collusive oligopolies (European Commission, 2003, para. 53, "Commission proposal"). Non-coordinated effects were perceived as the ‘enforcement gap’ in European merger policy (Volcker, 2004). Also, a SLC test was assumed to be more suitable for an economic approach as it directly focuses on the effects of mergers on competition (Kokkoris, 2005, p. 43). The new substantive test in the EUMR, the SIEC test, is a hybrid which resulted from a compromise between the proponents of a DT and those of a SLC test (Voigt & Schmidt, 2004, pp. 225-226). The SIEC test declares incompatible with the common market ‘concentrations which would significantly impede effective competition, in particular as a result of the creation or strengthening of a dominant position’ (art. 2(3), EUMR, emphasis added). A significant impediment to effective competition includes the creation or strengthening of a dominant position, which is a primary form of such competitive harm, and it is extended ‘only to the anti-competitive effects of a concentration resulting from the non-

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6 The Court defined dominance as ‘a position of economic strength […] which enables [an undertaking] to prevent effective competition being maintained […] by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of consumers’ (Case 27/76, United Brands v Commission [1978] ECR 207, para. 65).

7 The concept of dominance in the context of mergers is defined as ‘a situation where one or more undertakings wield economic power which would enable them to prevent effective competition from being maintained in the relevant market by giving them the opportunity to act to a considerable extent independently of their competitors, their customers and, ultimately, of consumers’ (Case T-102/96, Gencor v Commission, [1999] ECR II-753, para 200. Also see Joined Cases C-68/94 and C-30/95, France and others v Commission [Kali and Salz], [1998] ECR I-1375, para 221).


coordinated behaviour of undertakings which would not have a dominant position’ (recital 25, EUMR, emphasis added).

The introduction of an efficiency defence, as supported by the competition community (Commission proposal, para. 59), is another important element of EU merger reform. Traditionally, the Commission had rarely exempted mergers that created or strengthened a dominant player on the basis of an efficiency defence. On the contrary, it often saw projected efficiencies as a means by which the merging parties would strengthen their dominant position (the so-called efficiency offence) (Levy, 2005, pp. 118-119). Under the new regime, in order to determine the competitive effect of a merger, the Commission should take into account ‘any substantiated and likely efficiencies which may counteract the effects on competition, and in particular the potential harm to consumers’ (recital 29, EUMR).10 The HGL provide guidance on the (restrictive) conditions under which the Commission may take into account efficiencies (para. 78). Nonetheless, the acceptance of an efficiency defence remains highly unlikely for mergers approaching a monopoly (ibid., para. 84).

Next, the Commission published merger guidelines to provide a ‘sound economic framework’ for the assessment of horizontal and non-horizontal concentrations (EUMR, recital 28). The HGL draw on the Commission’s experience with the assessment of mergers under the ECMR and on the case law of the Courts (para. 6). They lay out some general and broadly accepted economic principles for assessing the likelihood of anti-competitive effects. The economic framework consists of a discussion of initial indicators (or scanning variables) such as market shares, concentration levels and ease of entry; and countervailing factors such as buyer power, merger-specific efficiencies and a failing firm defence (ibid., para. 12).

In 2003, Commissioner Monti appointed DG Competition’s first ever Chief Competition Economist and populated its team with reputable economists to give ‘guidance on analytical methodology, advice on the direction of investigations and direct assistance in the most complex cases’ in order to enhance the DG’s economic skills (M. Monti, 2002a). In the same year, the EAGCP was set up as an academic advisory body consisting of leading European industrial economists. Its main purpose is to support DG Competition in improving the economic reasoning and in the use of sophisticated econometric techniques in competition policy analysis.

Finally, DG Competition officials increasingly referred to ‘consumer welfare’ as the guiding principle of EU competition policy. ‘The goal of competition policy, in all its aspects, is to protect consumer welfare by maintaining a high degree of competition in the common market. Competition should lead to lower prices, a wider choice of goods, and technological innovation, all in the interest of the consumer’ (Monti, 2001, p. 2). ‘Consumer welfare is now well established as the standard the

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10 Note however that the Merger Regulation’s recitals are legally non-binding.
Commission applies when assessing mergers […]. Our aim is simple: to protect competition in the market as a means of enhancing consumer welfare and ensuring an efficient allocation of resources.’ (Kroes, 2005). ‘[I]n our enforcement we can place greater emphasis on the promotion of economic efficiency and consumer welfare. [T]hose practices should be prohibited which have the effect of harming consumers’ (Lowe, 2007, pp. 3-4).

II. Factors influencing the Commission’s merger decisions and the impact of the reform

This section discusses the competition and non-competition factors that may affect the Commission’s merger decision rule and the expected impact of the reform.

Competition factors: structuralist versus welfarist approach to market power

Horizontal mergers can decrease welfare through unilateral or coordinated effects. Unilateral effects stem from the internalization of competition between the merging firms, which enables the new entity to unilaterally raise prices (Werden & Froeb, 2008, p. 43). Coordinated effects arise when the merger changes the nature of competition such that the industry becomes (more) prone to collusion (Motta, 2004, p. 231). Industrial economics delivers important insights in the necessary and sufficient conditions for these anticompetitive effects to occur. However, economic doctrines are not neutral. They reflect a particular view on the well-functioning of markets and governments, which shapes the approach to competition policy (Jacobs, 1995, p. 225). We briefly discuss two contending competition policy paradigms: the structuralist Harvard school and the welfarist (post-)Chicago school.

The Harvard school (1950s-70s) greatly relied on Cournot oligopoly theory, which is structuralist in nature. Harvard scholars believed that any deviation of the market structure from basic competitive conditions would result in anticompetitive behaviour (Bain, 1959).11 This structuralist determinism translated into a commitment to a competitive market structure.12 Accordingly, Harvard defined market power in structuralist terms, rather than in terms of the ability to profitably raise prices or reduce output (Hovenkamp, 2005, p. 35). Under a structuralist approach, the assessment of mergers centred on market definition, market shares, the number of rivals and concentration indices, which function as proxies for market power (Baker & Shapiro, 2008, p. 237). Harvard scholars denied that market forces were strong enough to challenge powerful firms and they believed that barriers to entry

11 Inter-industry studies had revealed a statistical link between price-cost margins on the one hand and industry concentration and barriers to entry on the other (Bain, 1956; Mason, 1939). These findings were formalized in the structure-conduct-performance paradigm: market structure determines the way in which firms compete and hence the overall performance of the market. Good market performance was defined rather broadly. It included economic benefits such as allocative efficiency and technological progress, but also not strictly economic benefits such as stability of employment, the protection of small competitors and the dispersion of economic and political power (Van den Bergh & Camesasca, 2001, pp. 30-32).

12 Basic structural criteria for ‘workable competition’ included: as many firms as economies of scale permit, no artificial barriers to entry and moderate and price-sensitive product differentiation (Scherer & Ross, 1990, p. 53).
were persistent and omnipresent. Combined with the fact that economists of the time doubted efficiencies associated with large-scale firms (Kovacic & Shapiro, 1999, p. 52), a presumption of illegality was triggered at relatively low market share and concentration levels.

With the rise of the Chicago school (late 1970s-80s), a less interventionist era of competition policy was announced. The school built on a single model of competition to analyse firm behaviour, neoclassical price theory, which relies on the assumptions of profit and utility maximizing actors and perfect information. Chicagoans trust markets are generally self-correcting through the threat of entry, so market power and supranormal profits are considered to be temporary at best. To Chicagoans, barriers to entry are largely insignificant (Demsetz, 1976, p. 382; Stigler, 1964). They therefore believe that concentration and bigness stem from superior efficiency instead of anticompetitive behaviour (Demsetz, 1974, p. 164). Accordingly, instead of a particular market structure, competition becomes a result that is definable in purely welfarist terms. Market power is interpreted in terms of a firm’s ability to harm consumer welfare, so mergers should be analysed through an effects-based approach which directly balances the welfare-reducing effects and efficiency gains of mergers (Baker & Shapiro, 2008, pp. 236, 238-239; Scherer & Ross, 1990, pp. 533-535). By the late 1980s, Chicago was criticized for its overly simplistic assumptions. The eclectic post-Chicago school showed that real-life markets are less robust than Chicagoans believed. Building on game-theoretic probability models, the school demonstrated that firms can make profits without being efficient by taking strategic advantage of market imperfections (high information and entry costs, failing capital markets, reputation effects etc.). This warranted a more interventionist approach. However, post-Chicagoans mostly stayed true to the consumer welfare benchmark and the effects-based approach (Baker, 1989; Hovenkamp, 1985). The Chicago and post-Chicago schools form the main intellectual input for an economic approach to competition policy.

With the reform, the DT, with its focus on the structural dimension of market power (see fn. 6), was replaced by the SIEC test, which focuses more directly on the effects of mergers in terms of prices, output and quality. This suggests structural measures of market power will be less decisive after the reform and will merely be used as a first screening device, while the levels for presumptions of harm will be raised significantly. At the same time, merger control will be broadened with other industry variables (excess capacity, demand elasticity, transparency, countervailing buyer power, efficiencies etc.) to assess competitive effects and to detect possible countervailing factors that may rebut the initial presumption of harm. However, the EUMR clearly states that the notion of SIEC has extended the concept of dominance only to non-coordinated effects (recital 25). Moreover, standards of competitive harm as applied in the past have to be retained (recitals 26). Also, the HGL recall the traditional, structuralist definition of dominance as ‘intended to apply to all concentrations […] insofar

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13 Bain defines barriers to entry rather broadly as economies of scale and cost and product differentiation advantages of incumbent firms (Bain, 1956, p. 43).
as they are likely, because of their effect on the structure of competition, to prove incompatible with the system of undistorted competition’ (para. 3, emphasis added). Whether the reform caused a structural break in the effect of competition factors will therefore depend, on the one hand, on the flexibility by which the DT was applied in the past, and on the other, on the extent to which structuralism is preserved under the new regime (see next).

Non-competition factors: more than economics?

Competition policy can be made rational only when there is clarity regarding its goals (Bork, 1978, p. 244). A review of factors influencing EU merger control should therefore relate to its goal-setting. The Treaty and the Merger Regulations remain vague about the operational goals of EU merger control. Art. 119(TEU) (ex-art. 4(TEC)), specifies that the Union shall act ‘in accordance with the principle of an open market economy with free competition’. This includes the provision of ‘a system ensuring that competition [in the internal market] is not distorted’ (Protocol 27 T(F)EU) (ex-art. 3(1)gg(TEC)). These principles are confirmed in the Merger Regulations (see Section I) and in the case law of the ECJ: ‘the essential aim of Community control of concentrations [is] the protection of competition’.14 Whereas the HGL connect ‘effective competition’ to consumer benefits such as low prices, high quality products, a wide selection of goods and services, and innovation (para. 8), this hardly provides a workable policy definition.15 Indeed, the ECJ, final interpreter of the Treaty, assigned various goals to competition law, including, but not restricted to consumer welfare.16

First, competition law should promote market integration by preventing the private reconstruction of trade barriers.17 EU competition law was politically acceptable precisely because it was critical to achieving this goal and the economic and political benefits associate with it (Gerber, 1994, p. 114).18 The integration imperative has been called ‘perhaps the most original feature of European competition policy’ (Cini & McGowan, 1998, p. 10). The integration goal may result in the Commission supporting cross-border mergers and mergers in sectors that are still defined along national borders to promote the creation of larger European firms (see e.g. Thatcher, 2014).19 The impact of the MEA on the integration goal is hard to predict. Citing Sir Leon Brittan: ‘Chicago does not need to worry about creating a single market. Rather, it presupposes the existence of an integrated market’ (op. cit. Lowe,

14 Kali and Salz, para. 99. This was confirmed in Case T-102/96 Gencor v Commission [1999] ECR II-753, para 106: Merger control should ‘ensure that the restructuring of undertakings does not result in the creation of positions of economic power which may significantly impede effective competition in the common market’.

15 Note that this broad interpretation of ‘consumer welfare’ cannot be accommodated by neoclassical economics which is ill-equipped to handle non-price competition and dynamic efficiencies. However, here is not the place to discuss this matter in further detail.

16 Even in fairly recent cases, the ECJ keeps denying that consumer harm is necessary for EU competition law to apply, see fn. 3


18 The instrumental value attached to market integration can be derived directly from the EEC Treaty. Art. 2 reads: ‘The Community shall have as its task, by establishing a common market […] to promote throughout the community a harmonious development of economic activities, a continuous and balanced expansion, an increase in stability, an accelerated raising of the standard of living and closer relations between the states belonging to it’.

19 The relevance of the integration imperative for merger policy was affirmed in Kali and Salz, para. 169: ‘[T]he Regulation is founded on the premise that the objective of instituting a system to ensure that competition in the common market is not distorted is essential for the achievement of the internal market’.
2007, p. 3). Whereas especially in goods, integration is far advanced, the single market in (digital) services lags behind. Competition Commissioner Vestager (2015) made fostering the digital single market a priority.  

Secondly, EU competition law should protect the competitive process. This is often explained by ordoliberal influences on EU competition law (Gerber, 1998). However, the commitment to the competitive process may be more than mere rigidity of established case law and decisional practice. The interpretation of competition as a process may better fit European values. Europeans have a characteristic system of beliefs regarding economic power and are sceptical about the ability of markets to erode it (Hawk, 2008, p. 884). They rely on governments instead of markets to set the boundaries between freedom and economic power and to provide distributional justice (Amato, 1997, p. 54). The arrival of the MEA has not changed the social consensus. On the contrary, the European value system has been reinforced with the 2008 crisis, which has further challenged faith in markets and free trade. Ordoliberalism as a politico-economic philosophy lacks an analytical model. However, arguably a structuralist approach by and large enables the protection of competition as a ‘structural process of rivalry’. In terms of merger control, this may mean that market shares and concentration levels continue to play an important role in merger appraisals after the reform.

Lastly, the ECJ held that competition rules have to be read (and may have to be weakened) in the light of the Treaty’s overarching goals such as employment, environmental protection, regional development, public health etc. The Merger regulations confirm that the Commission must place its appraisal within the general framework of the Treaty objectives and that it must take into account ‘technical and economic progress’. The extent to which these provisions create room for industrial policy goals to influence merger policy is unclear. The ECJ ruled that secondary objectives cannot justify an authorisation which frustrates the fundamental aim of merger control, which is protecting competition. Industrial policy considerations may be revealed by a different treatment of mergers in strategic sectors such as energy, transport and finance. Another special interest sector is the media. Although media concentration can be inspired by efficiency reasons, excessive concentration can be revealed by a different treatment of mergers in strategic sectors such as energy, transport and finance. Another special interest sector is the media.

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20 The Commission also launched a sector inquiry into e-commerce which concluded that geo-blocking is widespread throughout the EU (European Commission, 2015, 2016).
21 C-808 T-Mobile Netherlands v NMA [2009] ECR I-4529, para 38 : Competition rules are designed to protect ‘the structure of the market and thus competition as such’.
22 The protection of the competitive process is at the heart of ordoliberal competition policy. Since competition disperses power, a free society requires an economic system based on free competition (Eucken, 2006, p. 231). Through the protection of economic freedom, competition also protects political freedom, and hence democracy (Streit & Wohlgemuth, 1997, p. 8). This corresponds to the classical economics view on competition as a process of rivalry between firms competing over market shares (e.g. Smith, Ricardo, J.S. Mill), which is shared by Austrian economists such as Hayek (1968). Some authors challenge the ordoliberal roots of EU competition policy (see eg. Akman, 2009; Akman & Kassim, 2010; Maier-Rigaud, 2012).
23 Also see Markham Jr (2011) on the potential role of merger control in preventing the creation of firms that are ‘too big to fail’.
24 The Treaty requirement that ‘competition shall not be distorted implies the existence on the market of workable competition, that is to say the degree of competition necessary to ensure the observance of the basic requirements and the attainment of the objectives of the Treaty […]. In accordance with this requirement the nature and intensiveness of competition may vary to an extent dictated by the products or services in question and the economic structure of the relevant market sectors’ (Case 26-76 Metro SB-Großmärkte GmbH & Co. KG v Commission [1977] ECR 1875, para. 20).
25 Kali and Salz, para. 99.
26 In 2012, the Commission identified some single market sectors with the most growth potential, which require greater focus by Member States and the Commission, including services, financial sector, transport, energy and the digital single market (European Commission, 2012).
jeopardise media pluralism and media diversity (Iosifidis, 2014, p. 462), which are highly valued by the Commission. Duso, Neven, and Rölle (2007) find a significant role for industry effects under the ECMR. The impact of the reform on industrial policy motives is hard to predict, however industrial policy motives in principle should not play a role in a more economics-based merger policy.

Other institutional factors may influence merger decisions too. First, some argue that the European competition authority, a primarily political body, is more vulnerable to capture than its American counterparts (for a discussion, see McDonnell & Farber, 2003, p. 815; Weiler, 1999, p. 266). Accordingly, EU merger control may be prone to lobbying from powerful member states, trading partners or industry lobbies (Christiansen, 2006, p. 18 ff.). The struggle to come to an agreement on a common merger policy illustrates the member states’ reluctance to give up control over industry concentrations (Schwartz, 1993). Within the EU, attitudes and policies towards FDI and cross-border mergers differ widely. Moreover, most member state have broader powers in merger control which allow them to assess the impact of a mergers not only regarding their competitive effects, but also in terms of their effects on the public interest (Jones & Davies, 2014, p. 456). To regain control, they may try to influence the Commission to protect strategic national sectors from foreign involvement or to support national champions. Next, a different view on competition (including the misinterpretation that EU competition law ‘protects competitors’ (Fox, 2003)) has caused frictions on the other side of the Atlantic up to the highest echelons of politics and business. Mergers and acquisitions by firms that are incorporated in other jurisdictions may be treated more favourably under the influence of industry and political lobbying and or to prevent conflicts with major trading partners. However, it also possible that industrial policy considerations reverse this effect (see higher). It is difficult to predict what the impact of the reform will be on the level of capture. Arguably, a greater reliance on an effects-based approach should make the Commission’s assessment more transparent and hence less vulnerable to capture. Also, in the early years of implementing the merger regulation, the Commission could have been more insecure about its lack of experience. This may have increased the willingness to avoid conflicts with major trading partners leading to a more lenient approach. Relying on a more uniform approach based on modern industrial economics may eliminate a differential treatment of extraterritorial mergers.

III. Previous literature on the decision-making process of competition authorities

Earlier literature has investigated the factors that influence competition authorities’ decisions for various jurisdictions, including EU merger policy. Lindsay et al. (2003); Bergman et al. (2005) and Aktas et al. (2007) analyse EU merger decisions before the reform; Fernández et al. (2008) after the

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27 In 2009, the Commission ordered a study to develop a monitoring tool to assess risks for media pluralism in the Member States and to identify threats to such pluralism (Valcke, 2009).
28 Coate, Higgins, and McChesney (1990) and Coate and McChesney (1992) address merger decisions by the FTC; Weir (1992, 1993) address merger decisions by the MMC; Khemani and Shapiro (1993) address merger decisions by the Canadian competition authority.
reform. To date, Duso et al. (2013) is the only empirical study of the comparative effects of EU merger reform.29

Most articles focus on the effects of competition factors on merger decisions. All authors insert basic structural measures for market power such as concentration indices and (change in) parties’ market shares. Nearly all authors conclude that the more concentrated the market and the higher the parties’ market shares, the higher the chance of an adverse finding. Lindsay, et. al (2003), on the contrary, claim that EU merger decisions are not influenced by industry concentration. Also, Weir (1992) finds that large market shares do not negatively affect the chance of a merger being allowed by the UK Monopolies and Mergers Commission (“MMC”). The majority of models contain a barriers to entry dummy to control for the mitigating effect of market contestability on market power. All authors conclude that the presence of entry barriers raises the chance of the competition authority blocking the merger or imposing conditions. Only few authors examine the effect of an efficiency or failing firm defence. They unanimously find that efficiencies have little impact on merger decisions. Coate, et. al (1992) conclude that staff’s efficiency claims have no apparent influence on the Federal Trade Commission (“FTC”) merger decisions. They presume this is because lawyers seem to have more impact on the FTC than do economists. Khemani, et. al (1993) also take efficiencies into account, but their findings are inconclusive due to multicollinearity problems. Weir (1992) concludes that increased efficiencies and the profitability of mergers have no significant impact on the MMC’s verdict.

Only few studies analyse the effects of non-competition factors on merger decisions. Coate, et al. (1992) include two political pressure variables. The first is the number of Wall Street Journal articles on the merger prior to the FTC's decision in order to account for high-profile transactions. The second is the number of times Congress summoned FTC commissioners or politically-appointed staff to defend their antitrust records. The model including political variables is superior to the models including competition variables only. Lindsay, et. al (2003) control for the number of geographic markets affected by the proposed merger and the origin of the bidder firm (US and Nordic countries). The chances of non-clearance are higher the greater the number of geographic markets, which is claimed to reflect the federal nature of the EU Commission’s mandate. Merger decisions seem not affected by the country of incorporation. This is confirmed by Bergman, et. al (2005). Aktas, et al., also conclude that bidder nationality by itself is not sufficient to arouse scrutiny. However, they find some (cautious) indication of protectionist motives in EU merger decisions during the nineties: regulatory intervention is more likely when European firms are harmed by increased competition. Yet, Duso et al. (2013) claim that mergers involving US firms are less likely to be challenged, both before and after the reform. Bergman et al. (2005) explore the presence of industrial policy motives in

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29 However, the focus of this study is the impact of the reform on predictability. Duso et al.’s restricted model therefore does not allow a full-blown comparison of the Commission’s decision rule before and after the reform.
EU merger policy by including a dummy for network industry mergers. They find no significant impact on the Commission’s decision. Weir (1992, 1993) are the sole studies explicitly addressing other public policy objectives. The analysis show that that stressing the potential benefits of mergers – f.i. more employment and better R&D - seems to play little part in the assessment of a merger. Only increased competition as a positive side effect seems to have a significant impact on merger decisions. Hence, as far as the MMC is concerned, the public interest as a concept is dominated by competition issues.30

IV. Methodology

We apply a method developed by McFadden (1975, 1976) to deduce the preferences of government bureaucracies from the outcomes of their decisions. By way of discrete choice models, ‘an implicit choice criterion such that the organization behaves as if it were following this decision rule’ can be uncovered (1975, p. 401).

First, we infer the Commission’s merger decision rule using a binary logistic regression model that estimates the weight the Commission attaches to competition and non-competition factors. The logistic model can be derived from a latent variable model.31 The unobserved continuous latent variable y* represents the Commission’s evaluation of the extent to which a proposed merger raises serious doubts. y* is linearly related to the vector of explanatory competition and non-competition variables x. The latent variable model can be written as:

\[ y^* = x\beta + \epsilon \]

The link between the latent variable y* and the observed outcome y, which takes on a value of 1 if the concentration raises serious doubts and 0 otherwise, is given by the indicator function:

\[ y = \begin{cases} 1 & \text{if } y^* > 0 \\ 0 & \text{if } y^* \leq 0 \end{cases} \]

For a given value of the explanatory variables x, the probability that a concentration raises serious doubts (i.e. the response probability) is given by:

\[ P(y = 1|x) = P(y^* > Z|x) = \pi = P(\epsilon > -x\beta|x) = G(x\beta) \]

30 Some studies compare US and EU merger enforcement practice. Lévêque (2007) confirms that both regimes base their assessment primarily on market characteristics such as market shares, concentration rates and entry barriers. Neither of them is more interventionist all of the time. The divergence of decisions depends on the type of merger. Bergman, Coate, Jakobsson, and Ulrick (2010) broadly support these findings. They state that US and EU regimes share a focus on market structure while stressing that there remain important differences too.

31 The following discussion is based on Long and Freese (2006, pp. 132-135); Wooldridge (2010, pp. 457-458).
where $G$ is the logistic cumulative distribution function which maps the index $x\beta$ into the response probability $\pi$, restricting it strictly between 0 and 1. To make the model identifiable, by assumption, $\varepsilon$ follows a standard logistic distribution with a fixed variance of $\pi^2/3$. The binary logit model is then defined by:

$$P(y = 1|x) = \Lambda(x\beta) = \frac{\log(x\beta)}{1 + \log(x\beta)}$$

The parameters of the logit model are typically estimated by maximum likelihood. Because of endogenous sampling, positive events are overrepresented (see section IV. Data). Ignoring endogenous sampling leads to inconsistent parameter estimation (Solon, Haider, & Wooldridge, 2015, p. 310). Accordingly, differences in event ratios between the population and the sample have to be corrected for. To that end, we maximise the inverse-probability-weighted maximum likelihood function (Wooldridge, 2010, pp. 859-861).\footnote{We performed a logistic regression in Stata using the \textit{pweight} option. The inverse weights were calculated at case level.}

Next, estimated weights $\beta$ before and after the reform are compared to analyse whether the MEA caused a structural break in the Commission’s decision rule. Whereas a comparison of coefficients is straightforward in linear regression models (see Chow, 1960), it is not in logistic models. Because the error term in latent variable models is unobserved, logit coefficients are only identified up to a scale factor which depends upon residual variation (Long & Freese, 2006, p. 102). The coefficients’ magnitude is therefore determined both by effect sizes and the degree of unobserved heterogeneity (Mood, 2010, p. 79). Differences in residual variation between regimes can produce differences in logit coefficients that do not necessarily indicate differences in causal effects (Allison, 1999, p. 187). Incorrectly assuming that residual variation is the same for both regimes therefore has serious consequences. In the presence of even fairly small differences, comparisons of coefficients can reveal differences where none exist, conceal differences that do exist or even switch the sign of the difference (Hoetker, 2004, p. 17). It is unwarranted to presume residual variation is the same before and after the reform of EU merger policy. If anything, we expect unobserved heterogeneity to be smaller after the reform. After all, the explicit aim of the more economic approach was to increase predictability by grounding merger decisions in competition factors only.\footnote{Duso et al. (2013) report a moderate rise in predictability after the reform of EU merger policy.} Several authors put forward ways to deal with unobserved heterogeneity in comparing logit coefficients across regimes. Allison (1999) developed a straightforward method to detect differences in residual variation. He relies on the assumption of equality of true effects for at least one variable and on the fact that unobserved heterogeneity affects all coefficients in the same way. His method performs reasonably well,
especially if the difference in variation is large. However, Allison’s routine falls short in identifying true differences in the value of specific coefficients across regimes (Hoetker, 2004, p. 10). Williams (2009, p. 241) states that the assumption that only one grouping variable is needed to capture differences in residual variation may be highly problematic in practice. As an alternative, he proposes to use heterogeneous choice models, which allow a lot more flexibility in specifying the variance equation. However, as Keele and Park (2006) point out, heterogeneous choice models can be even more biased and inefficient than heteroscedastic logit models of the form used by Allison if the variance equation is misspecified. Given the sensitivity of solutions proposed to deal with heteroscedasticity in logit models, some authors refrain from modelling the variance. We follow Long (2009) who suggests to compare changes in predicted probabilities to compare coefficients across regimes (see also Mood, 2010). Predicted probabilities are unaffected by residual variation. Moreover, the researcher does not need to make rash assumptions about the equality of some of the true effects.

V. Data

Our research covers phase I decisions in the years 1995 to 2013 (see Table 1 for population and sample statistics). During this period, the Commission issued 4,753 phase I merger decisions (1,847 before and 2,906 after the reform). 220 of these decisions were compatible subject to commitments (5.2% before and 4.7% after the reform). The sample includes 125 phase I merger decisions (59 before and 66 after the reform). For data collection efficiency reasons (see e.g. King & Zeng, 2001), we oversampled decisions subject to commitments (so-called choice-based or endogenous sampling): 21 of the decisions in our sample were compatible subject to commitments (respectively 13.5% and 26.9%). Contrary to previous research, which retains only the main relevant market for analysis, the Commission’s merger decisions were studied as a whole to control for intra-decision effects. For each decision, we gathered information on all markets for which the Commission performed a competitive assessment. This gives a total sample size of 747 horizontally affected relevant markets. In 76 markets, the Commission concluded the transaction raised serious doubts as to its compatibility with the internal market. This finding was always addressed with commitments, either in anticipation of or following the Commission’s investigation.  

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34 Accordingly, despite the Commission’s finding that the concentration would have adverse effects in a particular relevant market, some cases were concluded with an ‘Art 6.1(b) - compatible decision’ following commitments proposed by the merging partners that removed the Commission’s concern. These relevant markets are included in the database as positive events insofar the Commission conducted a competitive analysis of the market without taking into account the proposed commitments.
Table 1: Population and sample statistics

| Decision type | Population | | Sample | |
| | Before reform | After reform | Before reform | After reform |
| Art 6.1(b) - compatible | 1756 | 2777 | 52 | 52 |
| Art 6.1(b) - compatible with commitments (Ratio decisions with commitments) | 91 (5.2%) | 129 (4.7%) | 7 (13.5%) | 14 (26.9%) |
| Relevant markets affected | 278 | 469 |
| Relevant markets raising serious doubts (Ratio markets raising serious doubts) | 50 (20.2%) | 26 (5.5%) |


We extracted information on phase I merger cases from non-confidential decisions published on the website of DG Competition. A phase I merger decision typically includes an elaborate discussion of the relevant market (both before and after the reform), which focuses heavily on the findings of market investigations with competitors, suppliers and customers. More advanced econometric techniques to directly determine the competitive pressure merging partners exert on each other are very rare. The relevant market section is followed by a competitive assessment of the transaction. In most cases, this assessment relies on the number and strength of competitors and on an evaluation of barriers to entry. All information recorded reflects the view of the Commission. Some case information can be derived objectively from the decision texts, e.g. market shares, concentration indices and parties’ and rivals’ nationalities. However, some information is of a more indistinct nature, e.g. the exact width of the relevant market and the importance of barriers to entry. In case of uncertainty, we retained the Commission’s most conservative interpretation of the facts. Unfortunately, our approach does not allow to detect non-competition concerns that are concealed by an endogenous account of the facts. In other words, we have to presume non-competition concerns are not hidden behind e.g. inflated reports of the parties’ market shares, an understatement of barriers to entry, etc.

35 [http://ec.europa.eu/competition/mergers/cases/]
Table 2 provides sample-corrected descriptives before and after the reform of the ECMR. The adjusted sample composition is similar across regimes: differences in means are statistically significant for three variables only (a finding of serious concerns, presence of barriers to entry and combined market shares post-merger). Before the reform, the Commission found the transaction raised serious doubts for 13% of affected relevant markets. This is significantly more than the 1% of affected markets after the reform. This could be an indication for a less interventionist merger policy under the EUMR. Next, the Commission detected significantly less often barriers to entry after the reform. However, it is impossible to tell whether this is to be explained by industrial evolutions or by a different approach towards the definition of entry barriers (see Section II). Finally, predictably, the reform towards a SIEC-test appears to have entailed greater attention to the competitive effects of concentrations creating smaller players too. Though the differences are not statistically significant, some other interesting facts can be noted. After the reform, competitive assessments on average contain a more comprehensive analysis of competition factors as discussed in the HGL. Also, as may be expected, with the intensified use of objective economic criteria, stakeholders more often agree on the definition of the relevant market after the reform.

Table 2: Sample-corrected descriptives before and after the reform of the ECMR

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Sample-adjusted mean before reform</th>
<th>Sample-adjusted mean after reform</th>
<th>Difference (after – before)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concern</td>
<td>747</td>
<td>0.13</td>
<td>0.01</td>
<td>-0.12 *</td>
</tr>
<tr>
<td>Duration</td>
<td>747</td>
<td>44.05</td>
<td>38.54</td>
<td>-5.51</td>
</tr>
<tr>
<td>Notifying party EEA firm</td>
<td>747</td>
<td>0.73</td>
<td>0.62</td>
<td>-0.11</td>
</tr>
<tr>
<td>Notifying party large mem. state firm</td>
<td>747</td>
<td>0.48</td>
<td>0.50</td>
<td>0.02</td>
</tr>
<tr>
<td>Notifying party US/Japan firm</td>
<td>747</td>
<td>0.28</td>
<td>0.38</td>
<td>0.10</td>
</tr>
<tr>
<td>Intra-EEA cross-border transaction</td>
<td>747</td>
<td>0.38</td>
<td>0.30</td>
<td>-0.09</td>
</tr>
<tr>
<td>Relevant market = EEA</td>
<td>747</td>
<td>0.20</td>
<td>0.20</td>
<td>-0.01</td>
</tr>
<tr>
<td>Relevant market = national</td>
<td>747</td>
<td>0.70</td>
<td>0.70</td>
<td>0.00</td>
</tr>
<tr>
<td>Main rival EEA firm</td>
<td>747</td>
<td>0.79</td>
<td>0.71</td>
<td>-0.08</td>
</tr>
<tr>
<td>Number of relevant markets</td>
<td>747</td>
<td>9.87</td>
<td>15.16</td>
<td>5.29</td>
</tr>
<tr>
<td>Number of member states involved</td>
<td>747</td>
<td>4.00</td>
<td>6.99</td>
<td>2.99</td>
</tr>
<tr>
<td>Combined market share post-merger</td>
<td>703</td>
<td>30.98</td>
<td>22.69</td>
<td>-8.29 *</td>
</tr>
<tr>
<td>HHI - current</td>
<td>346</td>
<td>2114.39</td>
<td>2154.13</td>
<td>39.74</td>
</tr>
<tr>
<td>HHI - post</td>
<td>346</td>
<td>2460.23</td>
<td>2353.11</td>
<td>-107.13</td>
</tr>
<tr>
<td>HHI - delta</td>
<td>562</td>
<td>322.93</td>
<td>206.02</td>
<td>-116.92</td>
</tr>
<tr>
<td>Barriers to entry</td>
<td>747</td>
<td>0.08</td>
<td>0.01</td>
<td>-0.07 *</td>
</tr>
<tr>
<td>Number of competition factors discussed</td>
<td>747</td>
<td>1.00</td>
<td>1.70</td>
<td>0.70</td>
</tr>
<tr>
<td>Counter</td>
<td>747</td>
<td>0.10</td>
<td>0.19</td>
<td>0.09</td>
</tr>
<tr>
<td>Parties disagree</td>
<td>747</td>
<td>0.36</td>
<td>0.29</td>
<td>-0.07</td>
</tr>
<tr>
<td>Priority sector</td>
<td>747</td>
<td>0.16</td>
<td>0.23</td>
<td>0.07</td>
</tr>
<tr>
<td>Lobby sector</td>
<td>747</td>
<td>0.27</td>
<td>0.13</td>
<td>-0.13</td>
</tr>
</tbody>
</table>
VI. Results

For each regime, we estimated two model specifications. The economic model contains competition variables only i.e. combined market shares, barriers to entry and countervailing factors. The economic model is nested into the institutional model, which contains non-competition factors also, to control for market integration, industrial policy objectives and other institutional factors. Table 3 provides a description of the independent variables used in the empirical analyse. We distinguish competition and non-competition variables (see Section II for a discussion).

<table>
<thead>
<tr>
<th>Table 3: Description of dependent and independent variables</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEPENDENT VARIABLE</strong></td>
</tr>
<tr>
<td>CONCERN: Competitive concerns at relevant market level; takes on a value of 1 if the concentration raises serious doubts as to its compatibility with the internal market and 0 otherwise.</td>
</tr>
<tr>
<td><strong>COMPETITION FACTORS</strong></td>
</tr>
<tr>
<td>MSCOMB: Combined market share post-merger. In most cases, in view of confidentiality reasons, the Commission merely reported a market share bracket. We used the midpoint of the provided market share bracket. If the combined market share was absent, where possible, we calculated it from reported individual market shares pre-merger and/or increments. Market shares referred to as being insignificant were assigned an arbitrary value of 5%.</td>
</tr>
<tr>
<td>ENTRY: Barriers to entry; takes on a value of 1 if the Commission finds important barriers to entry in the relevant market and/or if entry is not timely or sufficient. If the Commission did not explicitly mention the presence of barriers to entry, we presumed there were none.</td>
</tr>
<tr>
<td>COUNTER: Countervailing factors; takes on a value of 1 if the Commission discusses countervailing factors, e.g. countervailing buyer power, efficiencies or a failing firm defence.</td>
</tr>
<tr>
<td><strong>NON-COMPETITION FACTORS</strong></td>
</tr>
<tr>
<td>Market integration</td>
</tr>
<tr>
<td>EEACROSS: Intra-EEA cross-border transaction, takes on a value of 1 if the transaction concerns a concentration between firms from different EEA members.</td>
</tr>
<tr>
<td>RM_NAT: Relevant geographic market national; takes on a value of 1 if the relevant geographic market is defined as national as compared to world, EEA or local.</td>
</tr>
<tr>
<td>Industrial policy</td>
</tr>
<tr>
<td>LOBBY: Sector variable; takes on a value of 1 if the transaction concerns a concentration in the pharmaceutical or chemical sector.</td>
</tr>
</tbody>
</table>

* p≤0.05, ** p≤0.01

36 Because of the large amount of missing values, the HHI and increments were not used.

37 None of the cases in the sample exhibits a ‘pure’ efficiency defence in the sense that efficiency gains overruled a preliminary finding of anticompetitive effects. Efficiencies taking into account include the strengthening of a competitor, merger synergies and one-stop-shopping to the benefit of consumers. Interestingly, in some cases, economies of scope gave rise to competitive concerns.
### Other institutional factors

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PRIORITY</strong></td>
<td>Sector variable; takes on a value of 1 if the transaction concerns a concentration in the energy, transport or financial sector.</td>
</tr>
<tr>
<td><strong>INFOCOMM</strong></td>
<td>Sector variable; takes on a value of 1 if the transaction concerns a concentration in the information and communication sector.</td>
</tr>
<tr>
<td><strong>NOT_LARGE</strong></td>
<td>Nationality parties, takes on a value of 1 if at least one of the notifying parties is from a large member state (France, Germany, United Kingdom).</td>
</tr>
<tr>
<td><strong>NOT_USJP</strong></td>
<td>Nationality parties, takes on a value of 1 if at least one of the notifying parties is from the United States or Japan.</td>
</tr>
<tr>
<td><strong>RIVAL</strong></td>
<td>Nationality rivals; takes on a value of 1 if the main rival in terms of market share is an EEA firm.</td>
</tr>
</tbody>
</table>

First, we discuss the logistic regression results to infer the Commission’s decision rule before and after the reform. The statistical significance and signs of the coefficients reveal which (non-)competition factors affect the Commission’s finding of serious concerns and in which direction. However, because of unobserved heterogeneity, the size of the effects cannot be compared directly across regimes (see Section IV). Therefore, next, we compare predicted probabilities and average partial effects for those factors that have a statistically significant influence on the Commission’s appraisal either before or after the reform.

**Decision rule before and after the reform**

The regression results are collected in Table 4. Adjusted Wald tests show that the institutional model enhances the fit of the economic model for both regimes. Model specification has little impact on the specificity of the model: over 96% of non-events are correctly classified in both models, for both regimes. However, the institutional model is a better classifier for a finding of competitive concerns. After including non-competition variables, sensitivity is improved from 65% to 70% before the reform, and from 61% to 73% after the reform. Based on these results, the reform does not seem to have an appreciable impact on predictability.

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38 These sectors are chosen on the basis of statistics gathered by Lobbyfacts.eu, which are calculated from the EU’s Transparency Register and from information on the Commission’s website on all high-level lobby meetings with Commission officials (https://lobbyfacts.eu/charts-graphs, retrieved on 15/09/2016).
Table 4: Logit regression results for the economic and the institutional model (before and after the reform)

<table>
<thead>
<tr>
<th>MODEL (REGIME)</th>
<th>Economic (Before reform)</th>
<th>Economic (After reform)</th>
<th>Institutional (Before reform)</th>
<th>Institutional (After reform)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSCOMB</td>
<td>0.102**</td>
<td>0.123**</td>
<td>0.120**</td>
<td>0.116**</td>
</tr>
<tr>
<td></td>
<td>(0.01)</td>
<td>(0.02)</td>
<td>(0.03)</td>
<td>(0.02)</td>
</tr>
<tr>
<td>ENTRY</td>
<td>3.114**</td>
<td>3.440**</td>
<td>3.879**</td>
<td>5.190**</td>
</tr>
<tr>
<td></td>
<td>(0.69)</td>
<td>(1.03)</td>
<td>(0.99)</td>
<td>(0.64)</td>
</tr>
<tr>
<td>COUNTER</td>
<td>-2.198</td>
<td>-3.859**</td>
<td>-4.406</td>
<td>-4.479**</td>
</tr>
<tr>
<td></td>
<td>(1.58)</td>
<td>(0.69)</td>
<td>(2.62)</td>
<td>(0.76)</td>
</tr>
<tr>
<td>RM_NAT</td>
<td></td>
<td>-1.177</td>
<td>-1.065</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.18)</td>
<td>(0.67)</td>
<td></td>
</tr>
<tr>
<td>EEACROSS</td>
<td></td>
<td>-1.432</td>
<td>1.630</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.23)</td>
<td>(1.12)</td>
<td></td>
</tr>
<tr>
<td>LOBBY</td>
<td></td>
<td>0.870</td>
<td>2.697**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.20)</td>
<td>(0.83)</td>
<td></td>
</tr>
<tr>
<td>INFOCOMM</td>
<td></td>
<td>1.408</td>
<td>3.006**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.26)</td>
<td>(0.78)</td>
<td></td>
</tr>
<tr>
<td>PRIOR</td>
<td></td>
<td>-3.175*</td>
<td>-0.424</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.27)</td>
<td>(0.87)</td>
<td></td>
</tr>
<tr>
<td>NOT_LARGE</td>
<td></td>
<td>-0.554</td>
<td>-0.361</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.25)</td>
<td>(0.91)</td>
<td></td>
</tr>
<tr>
<td>NOT_USJP</td>
<td></td>
<td>-3.106*</td>
<td>-2.905*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.56)</td>
<td>(0.93)</td>
<td></td>
</tr>
<tr>
<td>RIVAL</td>
<td></td>
<td>0.387</td>
<td>-0.651</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.87)</td>
<td>(0.82)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.96)</td>
<td>(1.04)</td>
<td>(1.27)</td>
<td>(1.35)</td>
</tr>
<tr>
<td>N</td>
<td>251</td>
<td>452</td>
<td>251</td>
<td>452</td>
</tr>
<tr>
<td>Pseudo R²</td>
<td>55%</td>
<td>58%</td>
<td>62%</td>
<td>65%</td>
</tr>
<tr>
<td>Specificity</td>
<td>96%</td>
<td>97%</td>
<td>97%</td>
<td>97%</td>
</tr>
<tr>
<td>Sensitivity</td>
<td>65%</td>
<td>61%</td>
<td>70%</td>
<td>73%</td>
</tr>
</tbody>
</table>

* p≤0.05, ** p≤0.01; sample corrected and cluster-robust standard errors in round brackets.

The competition variables, combined market share post-merger and barriers to entry, have the expected positive sign and are significant at the 1% level for all four models. Higher combined market shares and the presence of entry barriers increase the log odds ratio (“LOR”) of the Commission raising serious concerns. The results confirm the importance of countervailing factors after the introduction of the more economic approach. The presence of countervailing factors significantly reduces the LOR at the 1% level after, but not before the reform. Contrary to previous research, none of the single market variables is statistically significant. However, the RM_NAT dummy has the expected negative sign. This could be an indication of a policy preference to boost integration in markets that are still defined along national borders. Next, the results on the nationality variables broadly confirm previous research. One of the notifying parties being incorporated in a large member state does not significantly affect the Commission’s assessment, either before or after the reform. However, the nationality of the notifying parties does have an impact on the Commission’s assessment.
if the notifying firm is American or Japanese. In line with Duso et al. (2013), this fact decreases the LOR of a positive event for both regimes. Either these firms are successful in lobbying the Commission or the Commission is less harsh in its assessment to prevent conflicts with important trading partners. Finally, the regression outcomes point towards a significant role for industrial policy considerations in the Commission’s decision rule, both before and after the reform. However, the impact may differ across regimes. Before the reform, only concentrations in priority sectors have a significant impact on the Commission’s merger assessment. They lower the LOR of an adverse finding significantly at the 5% level compared to the reference sectors. This may demonstrate the Commission’s preference for consolidation in priority sectors such as energy, transport and financial intermediation. Under the new regime, transactions in the information and communication sector raise the LOR of a finding of serious concerns. The coefficient is significant at the 1% significance level. This finding illustrates a growing concern for cultural diversity, freedom of choice and plurality of information resulting in a more stringent attitude towards concentrations in the IC sector.

Surprisingly, after the reform, the lobby dummy has a significant effect on the Commission’s assessment. However, contrary to expectations, the sign is positive, implying that either lobbying tactics are contra-productive, or that the lobby dummy catches other considerations. The results do not support (other) protectionist motives as the fact that the main rival is an EEA firm does not significantly impact merger decisions.

Regime break

To detect a structural break in the Commission’s decision rule, Figure 1 compares response probabilities and APEs for those factors that have a statistically significant influence on the Commission’s appraisal either before and after the reform.

For both regimes, the probability of the Commission raising competitive concerns increases with combined market share levels. However, the old merger regime is significantly stricter for combined market shares over 25%. This suggests a rise in the market share thresholds that trigger a presumption of harm. The presence of barriers to entry boosts the chance of an adverse finding significantly, except for low market shares under both regimes, and for high market shares under the old regime. Before the reform, the effect of barriers to entry is the strongest for market shares between 40 and 60%. For mergers creating bigger firms, the effect is smaller since the probability of the Commission raising competitive concerns is very high even in the absence of barriers to entry. On the contrary, after the reform, the Commission appears to have greater trust in the threat of entry to discipline big firms, which is line with the MEA. However, the difference in APEs across regimes is not significant. Though the APE is smaller than that of barriers to entry, countervailing factors significantly lower the response probability for both regimes, except for very high markets shares before the reform. Interestingly, countervailing factors have a significantly stronger negative effect on the predicted
probability before the reform than after the reform for market shares up to 70%. This too may be explained by a general rise in the level of market shares that trigger suspicion under the new regime. In the presence of countervailing factors, the probability of a positive event is very small under the MEA. In line with an effects-based definition of market power, countervailing factors are taken into account even at very high levels of market shares. Overall, the findings on the competition variables suggest a decreased impact of structural measures of market power. If the notifying party is incorporated in the US or Japan, the response probability significantly drops for market shares over 25% under both regimes. The effect of incorporation in the US or Japan is larger for market shares up to 75% before the reform, suggesting the Commission was more prone to capture or more conflict-averse in dealing with foreign firms while it was gaining experience and confidence. However the difference is not statistically significant.

Figure 1: Predicted probabilities of a transaction raising serious concerns in function of combined market shares (left column) and APEs at different levels of combined market shares for a discrete change in a given covariate before and after the reform (right column).
Note: Reported confidence intervals are calculated at the 90% level.

VII. Conclusion

This paper investigated the effects of the MEA on the European Commission’s merger decision rule. The objective of this paper was to provide clarity on how the Commission interprets ‘effective competition’ and the impact of the reform in this regard. The Commission’s interpretation is construed by identifying the factors that influence the chance of the Commission raising serious doubts about the compatibility of a concentration before and after the reform.

We analysed a sample of 125 Phase I decisions covering the years 1995 to 2013. Regarding the competition variables, we find that the MEA has diminished the role of structural measures of market power in EU merger assessments. First, merger policy after the reform is significantly less strict, which suggests a substantial rise in the market share thresholds that trigger a presumption of harm. Next, the ease of entry and the presence of countervailing factors seem to lower the chance of the Commission raising serious doubts, even for mergers generating very large firms. On a grimmer note, the perceived softening of EU merger control may be down to the increased burden of proof to demonstrate anticompetitive effects to the required legal standard. This could increase the number of false negatives, which of course does not benefit consumer welfare. Interestingly, whereas the results suggest that post-reform policy is less structuralist, this does not mean an effects-based approach was
totally absent under the ECMR. On the contrary, ease of entry and the presence of countervailing factors played a significant role before the reform. However, these mitigating factors could not rebut the presumption of harm for concentrations creating very large firms. In terms of non-competition variables, both before and after the reform, the institutional model better fits the Commission’s decisions than the pure competition model. Under both regimes, industrial policy objectives play a significant role. Yet, the results suggest different priorities across regimes. Before the reform, the Commission favoured consolidation in priority sectors such as energy, transport and financial intermediation. The new regime exhibits a growing concern for cultural diversity, freedom of choice and plurality of information, resulting in a more stringent attitude towards concentrations in the information and communication sector. Concentrations in the chemical and pharmaceutical sectors also face a harsher approach. The results, however, do not support allegations that the Commission protects European competitors.

We conclude that whereas the reform has introduced more economics in the Commission’s merger assessments, EU merger control still is about more than economics. Accordingly, the Commission’s interpretation of ‘effective competition’ extends beyond the competitive effects of mergers on consumer welfare. To an extent, merger control appears to be used as a policy tool to support the Union’s priorities in a broader macroeconomic perspective. Of course, this may create economic and legal uncertainty. However, it is doubtful that the Commission will be willing to provide transparency regarding the nature of these non-competition objectives and the way they are balanced against pure competition goals.

References


