



## **Digitisation, Transaction Value Thresholds in Merger Control and Associated Challenges**

### *Background*

In light of the recent cases in the wider digital field, many commentators have been asking whether there is a need for rethinking competition law rules. There is the topic of algorithms that might allow firms to collude more easily, to better observe their competitors' behaviour and to price discriminate more effectively to the detriment of consumers. Another widely discussed issue is the question of market definition in markets where competition occurs over non-price parameters, which challenges traditional SSNIP-test based market definition methods. There are controversies around the question whether the enormous market power of new economy giants like Google and Facebook is chiefly the result of an abuse of dominance, whether network effects and switching costs are responsible, or whether it is purely the result of their innovative products. Intensive discussions also circle around the issue of privacy and data security. In addition, many commentators express worries on how big data companies affect our democratic institutions and liberal societies more generally. This also plays a central part regarding the question whether besides the three powers of the state, *ie* the legislative, the executive and the judiciary branch, and the fourth power the media, major digital companies form a fifth power. In this paper, our aim is to focus on one specific aspect: the challenges digitisation offers for traditional merger control.

We will start by discussing the benefits and challenges from digitisation, especially with respect to merger control. In a second step, we will lay out the cornerstones of the introduction of the transaction value threshold in Austria in 2017 and discuss motivations and first experience. In a third step, we will discuss important theories of harm relating to cases in the digital sphere that the Austrian reform aims to tackle, innovation and personal data.

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### *Benefits from digitisation*

Digitisation offers challenges for traditional merger control. All of the top five largest companies in the world by market value are digital service providers: Apple, Amazon, Google (Alphabet), Microsoft and Facebook.<sup>1</sup> These companies undoubtedly offer tremendous value to their customers. They lowered the barriers to long-distance communication, allowed us to automatize a wide variety of repetitive tasks, provide almost all over the world access to information far beyond any scale seen in history and widely expanded the variety of goods we can purchase. More generally, the digital revolution opens up possibilities for basic and applied research that companies can use for improved products and services. It allows for a better market allocation of goods and services. Consumers can more easily - i.e. at lower costs - find what they are valuing most.

### *Challenges for merger control*

On the other side, critics of the digital business models are easy to find. As the British newspaper *The Economist* memorably summarised, the digital market leaders are under critique of being BAADD, “*big, anti-competitive, addictive and destructive to democracy*”.<sup>2</sup> For competition authorities around the world anti-competitive behaviour is the focus of attention. One concern results from incentives for incumbent firms to buy up potential future rivals at an early stage. Innovative competitors often start without generating significant revenues. Merger notification thresholds are not met even though, from a competition policy perspective, such acquisitions may require a merger investigation. This is especially true with regard to protecting innovation potential and innovation competition in technology markets, be it digital markets or also research-intensive industries like pharmaceuticals.

Merger notification thresholds may also fail to capture mergers and acquisitions among internet companies where company value often derives from the data they accumulate rather than the revenues they generate. Hoarding of consumer data might not show up in current revenue statistics but it might strongly influence market valuations of such firms. The share prices of firms like Facebook, Amazon or Google indicate that investors expect further dramatic growth in the next decade.

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<sup>1</sup> <https://www.statista.com/statistics/263264/top-companies-in-the-world-by-market-value/>.

<sup>2</sup> The Economist (2018): *The techlash against Amazon, Facebook and Google - and what they can do*, Print Edition, 20.1.2018. <https://www.economist.com/briefing/2018/01/20/the-techlash-against-amazon-facebook-and-google-and-what-they-can-do>.

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*The new transaction value based threshold*

Given these challenges, the Austrian legislator introduced a new transaction value based threshold in Austrian merger control at the end of 2017 aiming to "avoid the formation of monopolies in the sensitive digital markets."<sup>3</sup> This reform allows merger control to perform its function fully in an increasingly dynamic economic environment driven by fast technological development and the resulting structural changes in the economy.

Not only the Austrian legislator felt the need to amend its merger control, also in Germany a similar amendment was introduced. The economies of Austria and Germany exhibit close interconnections with a considerable number of mergers to be notified in both jurisdictions. Consequently, the Austrian Federal Competition Authority (*Bundeswettbewerbsbehörde*) and the German Federal Cartel Office (*Bundeskartellamt*) decided - for the first time - to publish a joint guidance paper.<sup>4</sup>

*The Austrian regulation in detail*

Section 9 (4) KartG introduced the criterion of transaction value as an additional, subsidiary threshold for the notification requirement. Thus, mergers where companies or assets, which currently generate little or no turnover, are purchased at a high price can now be examined under the merger control regime. The aim of the threshold is to cover cases where current turnover and the purchase price for the company differ to a disproportionate extent. The high purchase price in such takeovers is often an indication of innovative business ideas with great competitive market potential.

The new transaction value based threshold in Section 9 (4) KartG is to be subsidiary applied to the turnover-based criteria of Section 9 (1) KartG:

*Mergers to which [Section 9 (1) KartG] does not apply also require notification to the Federal Competition Authority if*

1. *the undertakings concerned achieved an aggregate worldwide turnover of more than EUR 300 million in the last business year preceding the transaction,*

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<sup>3</sup> See the explanatory memorandum to the Austrian Cartel and Competition Law Amendment Act 2017 (*Kartell- und Wettbewerbsrechts-Änderungsgesetz 2017*) accessible under <https://www.parlament.gv.at/PAKT/VHG/XXV/II/01522/index.shtml#tab-Uebersicht> (in German only).

<sup>4</sup> The final English version is available under [https://www.bwb.gv.at/fileadmin/user\\_upload/Downloads/standpunkte/2018-07\\_Guidance\\_Transaction\\_Value\\_Thresholds.pdf](https://www.bwb.gv.at/fileadmin/user_upload/Downloads/standpunkte/2018-07_Guidance_Transaction_Value_Thresholds.pdf).

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2. *the undertakings concerned achieved an aggregate domestic turnover of more than EUR 15 million in the last business year preceding the transaction,*
3. *the value of the transaction is more than EUR 200 million, and*
4. *the undertaking to be acquired is active to a large extent on the domestic market.*

Therefore, the new threshold in Section 9 (4) KartG is a combination from turnover-based criteria (i.e., n° 1 and n° 2), transaction value (i.e., n° 3) and significant domestic activity of the target undertaking on the Austrian territory (i.e., n° 4). Both, n° 3 and n° 4 should enable capturing those transactions that have on the one hand a high purchase price which often indicates a substantial competitive market potential, as outlined above. On the other hand, these transactions may have a substantial effect on Austria, despite the target not (or hardly) generating (domestic) turnover (e.g., a runners' app used by a substantial number of Austrians).

For information on calculation of the transaction value as well as on the substantial domestic activity, please refer to the Joint Guidance published on [www.bwb.gv.at](http://www.bwb.gv.at).<sup>5</sup>

#### *Practical experience in Austria*

The new Austrian transaction value threshold is now close to its one-year anniversary given that the new provision entered in force on November 1<sup>st</sup>, 2017. By the end of September 2018, 13 filings have been submitted to the Bundeswettbewerbsbehörde based on Section 9 (4) KartG. Moreover, there have been more than 20 (informal) consultations on whether or not the new transaction value threshold was met. In the same period of time, there have been around 400 merger notifications based on the traditional turnover based thresholds. So far, several transactions related to the healthcare sector (pharmaceuticals / diagnostics), i.e., a sector where also - at least at the beginning of a pharmaceutical or technology - turnover might not adequately reflect the respective competitive potential of the undertakings and/or products being acquired. Other industries/sectors included real estate and machine equipment production. The filings and/or consultations did not yet lead to assessments of major deals within the digital economy.

From a practical perspective, questions from the lawyer community so far primarily related to the fact whether the target undertaking's activities have substantial domestic effects. Only in very few transactions, the transaction value and the method on how it needs to be calculated was an issue. However, in most cases the EUR-200-million threshold was clearly exceeded

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<sup>5</sup> Please see FN **Fehler! Textmarke nicht definiert..**

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irrespective on the calculation method. The Austrian legislator - contrary to the situation in Germany - has not foreseen an evaluation period. However, the Director General of the Bundeswettbewerbsbehörde already announced that the authority will follow the respective developments closely and - as far as this appears to be necessary - propose legislative amendments.

Summing up, the introduction of the transaction value thresholds did not generate a big burden for the Bundeswettbewerbsbehörde and early feedback from lawyers and companies provides evidence that the provisions are sufficiently clear. We were successful in keeping legal uncertainty low with the publication of our joint guidance paper and extensive consultation periods.

#### *Merger review for notifications under the transaction value based threshold*

Transaction value thresholds can solve the issue that the merger control rules did previously not capture some important cases in the new economy. A related issue for authorities is how to assess the merger cases that are notified if traditional price-based effects are not the whole story. The most substantial part of any merger assessment has been mainly to examine the likelihood and size of unilateral effects on prices. While this will remain the basis of any sound assessment, there have been intensive discussions on theories of harm relating to innovation incentives and abilities as well as consumer data. One reason for high company valuations relative to current revenues might lie in innovation or anticipated innovative potential. Filings of firms operating in the healthcare / pharmaceutical sector under the new threshold are good candidates for examining innovation effects of mergers. The European Union *Community Innovation Survey* shows that the share of companies engaged continuously in in-house R&D activities is at 75 percent for the pharmaceutical sector (NACE 22) compared to 37 percent for the overall manufacturing sector (NACE 10-33). The corresponding share for the information and communications sectors (NACE 58-63) lies at 49 percent with Computer programming, consultancy and related activities (NACE 62) exhibiting 58 percent.<sup>6</sup>

The current work of an R&D department will typically not be visible in today's revenues and today's market shares. Innovation is an inherently dynamic process: It takes time for an idea to be born, to be implemented and to become effective. It is a major challenge for merger assessments on innovation effects to get a better understanding of the dynamic effects of mergers and acquisitions. The guiding principle should remain to avoid harm for the consumer:

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<sup>6</sup> The figures are for Germany as there is no comparable data available for Austria or the EU, see [https://ec.europa.eu/eurostat/data/database?node\\_code=inn\\_cis9\\_exp](https://ec.europa.eu/eurostat/data/database?node_code=inn_cis9_exp).

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Lower incentives and abilities to innovate will result in less variety, lower quality and higher prices for consumers. In the long run, lower aggregate levels of innovation will also mean lower levels of economic growth.<sup>7</sup>

#### *Examining the effects of mergers on innovation*

Austria has been closely following the recent discussions on innovation theories of harm. They are an integral part of our analysis, even though we do not have a history of innovation-related merger remedies. The European Commission has recently been very active in studying innovation effects of mergers. In the merger case *Dow/DuPont* (COMP/M.7932), decided in 2017, the Commission raised concerns on both product competition and innovation competition. It imposed the divestiture of DuPont's R&D organisation.<sup>8</sup> Companies' own documents helped to prove that the merger would reduce their research efforts.<sup>9</sup> In another prominent case from 2018, *Bayer/Monsanto* (COMP/M.8084), the Commission also demanded the divestiture of significant R&D assets.

By acquiring smaller competitors before turnover-based notification thresholds are met, a dominant firm can avoid merger review in cases where an innovation-based theory of harm might lead to concerns. A major difficulty for authorities lies in predicting future market entry. In the merger case *Facebook/WhatsApp* (COMP/M.7217) the European Commission needed to assess the likelihood of WhatsApp establishing a fully-fledged social network. In the *Dow/DuPont* decision, the Commission used the concept of innovation spaces to narrowly define areas of innovation competition and check R&D overlaps and capacities in these innovation spaces.<sup>10</sup> Applying the concept of innovation spaces to internet service providers might produce more vague results than for firms active in the pharmaceutical or chemical industry.

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<sup>7</sup> Innovation increases aggregate productivity, which is a major determinant of the growth rate. See e.g. Caselli (2005).

<sup>8</sup> See Bertuzzi et al. (2017).

<http://ec.europa.eu/competition/publications/cmb/2017/kdal17002enn.pdf>

<sup>9</sup> See the Speech by Margarete Vestager, "Fairness and competition", *GCLC Annual Conference, Brussels, 25.1.2018*, [https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/fairness-and-competition\\_en](https://ec.europa.eu/commission/commissioners/2014-2019/vestager/announcements/fairness-and-competition_en).

<sup>10</sup> See the speech by Carles Esteva Mosso, "Innovation in EU Merger Control", 66<sup>th</sup> ABA Section of Antitrust Law Spring Meeting, Washington, 12.4.2018, [http://ec.europa.eu/competition/speeches/text/sp2018\\_05\\_en.pdf](http://ec.europa.eu/competition/speeches/text/sp2018_05_en.pdf).

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*Economic arguments for an innovation-based merger assessment*

The economic literature suggests that mergers affect innovation through various channels. Firstly, a merged entity will coordinate its prices. This price coordination increases profits independently of any innovation. The incentive to innovate will increase only if innovation leads to additional profits. Secondly, innovation by one firm imposes an externality on the other firm by diverting sales away from it. Two merging firms will internalise this and include the resulting sales loss of the second firm in the *ex-ante* profitability calculation.<sup>11</sup> Thirdly, if the innovation activity of one firm leads to involuntary knowledge spillovers to other firms this diminishes the *ex-ante* incentive to innovate. A merger would in this case increase innovation incentives, as the merged firm can appropriate a larger share of the gains from its investment.<sup>12</sup>

While the innovation externality unambiguously reduces the incentive to innovate, the effect of price coordination can go either way (effect is mostly assumed to be positive on innovation) and the involuntary spillover channel increases the incentive to innovate.<sup>13</sup> The effect on innovation is more important if two out of a limited number of significant innovators merge and if the merging firms are especially close competitors for a given product.<sup>14</sup>

The Horizontal Merger Guidelines of the European Commission state that after a merger innovation competition can be significantly strengthened or weakened.<sup>15</sup> In order to decide whether a theory of harm based on innovation is sensible under each case-specific circumstances, Shapiro argues, “*Competition policy can be usefully and substantially guided by the Contestability principle, the Appropriability principle, and the Synergies principle.*”<sup>16</sup> The first two principles, contestability and appropriability, relate to the incentives to innovate. The latter principle, synergies, relates to the ability to innovate.

- **Contestability:** Markets are contestable if successful innovative activity pays off, i.e. if consumers are actually switching from less innovative to more innovative firms. Strong brand preferences, switching costs and network effects will decrease contestability. A merger that weakens contestability will decrease innovation incentives, as the merging firm will lose less of their sales to successful innovators. In addition, the lower is general market contestability, the lower are merging firms’ pre-merger incentives to innovate.

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<sup>11</sup> See Federico et al. (2017).

<sup>12</sup> See Motta and Tarantino (2017).

<sup>13</sup> The price coordination effect comes close to what Schumpeter (1942) had in mind when he proclaimed that monopolies are innovation-enhancing. In contrast, the innovation externality effect is sometimes also termed the Arrow (1962) effect.

<sup>14</sup> See Federico et al. (2017).

<sup>15</sup> See [https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52004XC0205\(02\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52004XC0205(02)&from=EN)

<sup>16</sup> See Shapiro (2012).

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- **Appropriability:** The degree of appropriability measures how much of the social returns the innovative firm can capture. This depends strongly on the degree to which the innovation can be protected from imitation. Appropriability will increase with stronger patent protection. Technical barriers to imitation might also increase appropriability. Mergers that strengthen appropriability will increase innovation incentives.
- **Synergies:** Synergies between the assets of the merging firms can increase the merged entity's ability to innovate. The likelihood of such synergies depends on the complementarity of the merged assets. An example for positive synergies would be the combination of a start-up's product with the distribution network of the incumbent. The relevant question for merger analysis is whether these synergies are specific to the merger or could also be expected to occur in its absence.

Summing up, an effect-based study of likely innovation harm cannot follow a one-size-fits-all recipe. The economic literature offers a roadmap that should guide merger assessments. Relevant markets on which innovation takes place need to be defined carefully. Otherwise, it will be difficult for innovation arguments to hold in front of the courts.

#### *The issue of personal data*

A second theory of harm besides innovation results from the amassing of large swathes of data by the new economy giants. In relation to the new transaction value based notification threshold, the amount of personal data a company possesses could be another reason for high company valuations. In the healthcare / pharmaceutical sector, data on the personal health status of individuals or of an aggregated group of individuals could allow for the targeted provision and development of services and pharmaceuticals. For internet companies, the tracking of user behaviour in combination with the usage of statistical tools allows for the establishment of detailed personality and consumer behaviour profiles that could again improve targeted advertisements as well as the services themselves.

Internet firms often operate on multi-sided markets: First, firms offer users a free service with competition on quality or other non-price parameters such as data security. Second, firms compete for advertising. Third, firms collect user data which they can use as inputs for other markets.<sup>17</sup> In merger cases of big data firms, authorities have to decide whether the combination of data assets leads to competitive concerns. In principle, consumers might benefit if digital companies use more data to offer them better services. Problematic is the

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<sup>17</sup> An informative summary of competition concerns regarding data in the context of mergers is provided by Törngren (2018)

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rising entry barrier, in case potential competitors cannot compete due to the lack of information the incumbent possesses. Data and internet services are in a vertical relationship where gathering of personal data takes place upstream and service provision downstream. Foreclosure on the downstream market might limit the possibilities of would-be competitors and allow the incumbent to increase profits at the expense of consumers.<sup>18</sup>

Decisional practice has so far rejected these fears because “*the merging firms were bound by contractual obligations not to disclose customer information to third parties*”.<sup>19</sup> An example is the case *Google/DoubleClick* (FTC File No. 071-0170). The issue of data foreclosure for potential competitors in principle could be tackled via imposing data sharing obligations. One suggestion has been to oblige big data companies to share anonymised excerpts of data in return for a fee.<sup>20</sup> Data protection rules might limit the extent to which this is possible.<sup>21</sup>

In the merger case *Apple/Shazam* (COMP/M.8788) the European Commission examined these data-related issues in detail. The Austrian Competition Authority referred this case to the Commission. The relevant market was defined as the digital music streaming market. It concluded that “*the integration of Shazam’s and Apple’s datasets on user data would not confer a unique advantage [...] because Shazam’s data is not unique and Apple’s competitors would still have the opportunity to access and use similar databases.*”<sup>22</sup>

Personal data should also be examined in the light of innovation-based theories of harm. On the one hand, the combination of personal data sets might allow for synergies that positively influence the ability to innovate. On the other hand, contestability might be lower due to possible data foreclosure and rising switching costs.

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<sup>18</sup> See Tirole (2017, p.406)

<sup>19</sup> See Bania (2018, p.70)

<sup>20</sup> See the suggestions in The Economist (2018): How to tame the tech titans - Competition in the digital age. Print Edition, 18.1.2018. <https://www.economist.com/leaders/2018/01/18/how-to-tame-the-tech-titans>

<sup>21</sup> See Bania (2018, p.74ff.)

<sup>22</sup> See [http://europa.eu/rapid/press-release\\_IP-18-5662\\_en.htm](http://europa.eu/rapid/press-release_IP-18-5662_en.htm)

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*Conclusion*

Strict public regulation of the new digital economy giants might be a tempting solution for those who fear the concentration in parts of the digital sphere. We risk undermining the competitive process if we close our eyes to the challenges posed by digitisation, such as innovation and the use of personal data. A consistent application and - where necessary - a further development of competition law will play a central role in coming to terms with these challenges.

Debating the effects of digitisation on merger control is pivotal on both national and European level. The transaction value based notification thresholds introduced by Austria and Germany are in essence a reaction to the changing economic circumstances because of digitisation. Digital mergers regularly take place on markets with a geographic scope larger than national. The Austrian Bundeswettbewerbsbehörde is ready to share its practical experiences and welcomes a continuation of this discussion on the European level.

*Literature*

Arrow, Kenneth (1962): Economic welfare and the allocation of resources for invention. In: Universities-National Bureau Committee for Economic Research; Committee on Economic Growth of the Social Science Research Council (Eds.): The rate and direction of economic activities: economic and social factors. Princeton University Press, 609-626.

Bania, Konstantina (2018): The role of consumer data in the enforcement of EU competition law. In: European Competition Journal, Vol. 14, No.1, 38-80.

Bertuzzi, Alexandre; Thomas, Soledad Blanco; Coublucq, Daniel; Jonckheere, Johan; Tew, Julia; Deisenhofer, Thomas (2017): Dow/DuPont: protecting product and innovation competition. In: Competition merger brief, 2/2017, 1-8.

Caselli, Francesco (2005): Accounting for Cross-Country Income Differences. In: Aghion, Philippe; Durlauf, Steven (Eds.): Handbook of Economic Growth Volume 1A. North Holland, 679-741.

Federico, Giulio; Langus, Gregor; Valletti, Tommaso (2018): Horizontal Mergers and Product Innovation. In: International Journal of Industrial Organization, Vol. 59, 1-23.

Motta, Massimo; Tarantino, Emanuele (2017): The Effect of Horizontal Mergers, When Firms Compete in Prices and Investments. Working Paper 1579, Department of Economics and Business, Universitat Pompeu Fabra.

Schumpeter, Joseph (1942): Capitalism, Socialism, and Democracy. Harper & Brothers.

Shapiro, Carl (2012): Competition and Innovation: Did Arrow Hit the Bull's Eye? In: Lerner, Josh; Stern, Scott (Eds.): The Rate and Direction of Inventive Activity Revisited. University of Chicago Press, 361-404.

Tirole, Jean (2017): Economics for the Common Good. Princeton University Press.

Törngren, Oskar (2018): Mergers in big data-driven markets: is the dimension of privacy and protection of personal data something to consider in the merger review? Thesis in EU Law, Stockholm University, Faculty of Law, Department of Law.