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EU merger control database: 1990-2014

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EU Merger Control Database: 1990-2014*

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1 Introduction

Competition policy, i.e. the design and enforcement of competition rules, is a cornerstone of European Union policy designed to enhance European integration and foster growth. Among the different areas of the European Commission’s (EC) antitrust enforcement, i.e. collusion, merger, and abuse-of-dominance cases, this dataset focuses on EC merger policy. As common European merger control started in 1990, we can now look back at, and evaluate more than 25 years of EC merger control.

We collected data on almost the complete population of the Directorate-General Competition’s (DG COMP) merger decisions, both across time and with regard to the scope of the decisions encompassed. We started data collection with the very first year of common European merger control, 1990, and included all years up to 2014. This amounts to 25 years of data on European merger control.

With regard to the scope of the decisions, we collected data in all cases where a legal decision document exists. This includes all cases settled in the first phase of an investigation (Art. 6(1)(a), 6(1)(b), 6(1)(c) and 6(2)) and all cases decided in the second phase of an investigation (Art. 8(1), 8(2), and 8(3)). Note that this also includes all cases settled under a ‘simplified procedure’, provided that a legal decision document exists.

Furthermore, we also intended to collect data on cases that were either referred back to member states by DG COMP or aborted by the merging parties. While we have collected some data on such cases, data on these cases is not always available. Therefore, we cannot guarantee that the final dataset covers all of these cases.

Rather than taking a particular merger case as the level of observation, we decided to collect data at a more fine-grained level, defining an observation as a particular product/geographic market combination concerned by a merger.

In total, the final dataset contains 5,196 DG COMP merger decisions, where each decision occupies a number of rows equal to the number of product/geographic markets identified in the specific transaction. Hence, the total dataset contains 31,451 observations.

The remainder of the data documentation is structured as follows. In section 2 we provide a short overview of DG COMP’s merger review process. In section 3 we describe how we collected and recorded the merger data, in section 4 we describe our data cleaning and quality control procedure. Section 5 contains a description of all the variables included in the final database. Lastly, we explain the data collection procedure with the help of an example case in section 6.
2 EU Merger Review Process

Mergers that affect the European market must be notified to the EC when involving an EU community-wide dimension.

DG COMP then has 25 working days (which can be extended to a maximum of 35 working days) for an initial assessment of the merger. This is the so-called "phase-1 investigation." Based on this initial assessment DG COMP can clear the proposed merger (phase-1 clearance), clear it subject to remedies proposed by the merging parties (phase-1 remedy), or initiate a more in-depth investigation (phase-2 investigation) depending on whether the proposed transaction raises competitive concerns and depending on whether these can be addressed by initial remedies or not. Furthermore, the merging parties might also withdraw the proposed merger during phase-1 (phase-1 withdrawal).

If DG COMP initiates a more in-depth investigation, this phase-2 investigation can take up to 90 working days. Following this second investigation phase, DG COMP can again unconditionally clear the merger (phase-2 clearance), clear the merger subject to commitments by the merging parties (phase-2 remedy), or prohibit the merger (phase-2 prohibition). Again, the merging parties can also still withdraw the proposed merger during phase-2 (phase-2 withdrawal). It has been argued that withdrawing a merger during phase-2 of the investigation process is virtually equivalent to a prohibition as parties often withdraw a merger before an actual prohibition by DG COMP takes place. Hence, both a prohibition as well as a phase-2 withdrawal suggest that DG COMP and the notifying parties were unable to find suitable remedies to address the anti-competitive concerns of the proposed transaction.

3 Data Collection Procedure

All decisions by DG COMP are available and publicly accessible on the EC's website. We downloaded all available merger decision documents for merger cases notified to the EC between 1990 and end of 2014.

These decision documents were then partly read and scanned for the relevant information that we wanted to collect in the appropriate sections of the decisions. For example, the
recording of a particular case will typically start with the basic case information (number, dates, decision etc.) contained on the first page(s) of the document. The typical structure of a decision document is as follows:

**Introduction** The case is summarized on the first pages of the document. The final decision as well as the relevant dates and parties involved are also stated here.

**The Parties, The Operation, Concentration of Community Dimension** This section of the decision discusses the merging parties as well as the nature of the merger proposal in detail. Under the heading "Concentration and Community Dimension" DG COMP justifies why the case has an EU-wide dimension.

**Compatibility with the Common Market** This section is the main part of the decision and contains most information that we collected. The sections "Relevant Product Markets" and "Relevant Geographical Markets" explain in detail which markets and products are affected by the merger. The next section (called "Assessment" or similar) typically contains the market shares of the merging parties as well as of competitors in each concerned product/geographic market. The section "Competitive Assessment" contains the discussion of the potential competitive concerns of the merger in all relevant product/geographic markets. We filter out some of the characteristics of the concerned markets (see section 5 for a description of the included variables).

**Undertakings proposed by the Parties or Parties proposed remedy** This section of the decision contains the description of the remedies that the merging parties proposed in order to address the competitive concerns raised by DG COMP, distinguishing between behavioral and structural remedies.

**Assessment of the proposed Modifications** This section contains DG COMP’s evaluation of the appropriateness of the proposed remedies in alleviating the competitive concerns raised previously.

**Overall Conclusion** This section contains the final decision of DG COMP. Hence, it states whether the proposed merger is compatible with the common market or whether it would significantly impede competition in the common market and, consequently, is going to be prohibited.
Appendix  The final assessment by DG COMP is typically followed by numerous appendices containing tables and figures highlighting certain aspects of the decision. These are not typically relevant for the type of information we collected.

During the data collection process, we recorded all the information gathered from the decision documents in Microsoft Excel tables. The format of these tables was uniform across all research assistants involved in the data gathering process, thus facilitating merging them later.

We then merged the individual data tables into a single matrix using the statistical software package STATA. This facilitated various tasks of cross-checking the data, quality control (see section 4) and will also be helpful in the creation of standardized classification schemes. The cleaned and standardized dataset can then be exported back into any data format desired.

To date, data on almost all merger cases decided by DG COMP from 1990 through 2014, inclusive, has been collected. However, there are about 500 decision documents between 1990 and 2014 for which data is not yet recorded, primarily because most of these documents are not in English.

Given that we consider all merger cases notified to the EC between 1990 and 2014, some of these cases (around 50) were decided only in 2015.

4 Data Cleaning & Quality Control

In order to ensure a high quality and consistency of the data collected, we essentially took two measures.

First, we established a uniform data collection procedure for all research assistants going through the decision documents and recording the data. Secondly, we controlled the quality of the data once we imported the raw data from the Excel tables into STATA.

The first step is particularly crucial: we developed an approach to analyzing DG COMP’s decision documents that i) makes it clear to the individual research assistant what information is to be collected from the decisions; ii) where in the decision documents this information can be found (or is most likely to be found); and iii) how these tasks can best be streamlined. To this end, we developed a ‘manual’ that explains in detail how the data are to be collected. Furthermore, at the beginning of the data collection stage, we asked each research assistant to re-collect data on a few mergers that were already reliably
recorded. This allowed us to compare the ‘canonical’ data to the results delivered by the research assistant. Any discrepancies between the two were discussed with the research assistant, such that human mistakes or ambiguities in the data collection procedure could be ruled out to the largest extent possible.

Of course, human error cannot entirely be ruled out. That is why we conducted a second stage of quality control. While typos and other human errors are hard to spot in tables with thousands of rows and dozens of columns, the statistical evaluation of the resulting tables once imported into STATA made this consistency check easily possible. Thus, in the second stage of quality control we checked for typos in the data, unreasonably large or small values in specific variables, and missing data problems.

We corrected, for example, typos, coding errors, and missing values in the basic information about the decision (see section 5 for a detailed description of the variables). Some case numbers and country information were corrected. Furthermore, we checked whether the notification date was always prior to the decision date, which allowed for spotting typos in the date variables. At times the outcome of a decision was also wrongly coded in the Excel files. We further corrected coding errors or missing values in the indicator variables describing the type of the merger as well as the geographic market concerned. Lastly, we harmonized merging party names across markets and imputed some missing market share information. In cases where the correct values of variables were not obvious, we went back to the respective decision documents in order to correct the data.

Following the data cleaning, the final dataset contains 31,451 observations belonging to 5,196 merger cases.

5 Database Content

This section describes in detail the information contained in the final merger database. As explained above, the unit of observation is not a particular merger case but rather a particular product/geographic market combination affected by the merger. Hence, some of the variables collected vary at the merger level while others vary at the level of the concerned product/geographic market combination. The overview table in Appendix A.1 lists all variables contained in the database and specifies whether they vary at the merger or the product/geographic market level.
5.1 Basic Information about the Decision

The dataset contains first some basic information about the decision. The variable `casen` contains the case number as reported in the decision document. This variable uniquely identifies each merger case. The variables `notdate` and `decdate` contain the date of the notification to, and the date of the decision of DG COMP, respectively. We also included the variables `notyear` and `decyear` containing the year in which the notification respectively the decision took place.

We also collected information on acquiring and target firms. In some merger cases more than one acquiring and/or more than one target firm are involved. This is why the dataset contains information on up to three acquiring and up to two target firms. The string variables `acquirer1`, `acquirer2`, `acquirer3`, `target1`, and `target2` contain the names of the acquiring firms as well as of the target firms. Tables 17 and 18 in Appendix A.2 and A.3 list the top 20 primary acquiring and target firms respectively. Note however that this is a preliminary assessment of acquiring and target firms before complete name harmonization.

The variables `countryacq1`, `countryacq2`, `countryacq3`, `countrytar1`, and `countrytar2` record the nationality of the acquiring and the target firms respectively. Table 19 in Appendix A.4 lists the top 20 acquiring and target firms' countries based on the primary acquiring and target firm respectively. If the notified merger is a joint venture, the parties are ordered into acquirer and target according to the order the companies appear in the title of the decision.

The variable `outcome` contains the type of decision made by DG COMP distinguishing phase-1 clearances (outcome 1 "ph1 clear"), phase-1 clearances subject to remedies (outcome 2 "ph1 rem"), phase-2 clearances (outcome 3 "ph2 clear"), phase-2 clearances subject to remedies (outcome 4 "ph2 rem"), prohibitions (outcome 5 "prohibition"), phase-1 withdrawals (outcome 6 "ph1 withdrawal"), phase-2 withdrawals (outcome 7 "ph2 withdrawal"), referrals back to the competition authority of the respective member state (outcome 8 "referral to MS"), as well as other types of decision documents (outcome 9 "other").

Phase-1 cases are decided under Art.6(1)(a), Art.6(1)(b), or Art.6(2) of the EC Merger Regulation. While phase-1 cases are decided under Art.6(1)(a) or Art.6(1)(b) without imposing remedies, phase-1 clearances subject to remedies are cases decided under Art.6(1)(b) or Art.6(2) with imposition of remedies.

Phase-2 cases are decided under Art.8(1), Art.8(2), or Art.8(3) of the EC Merger Regulation. While phase-2 clearances are decided under Art.8(1) or Art.8(2) without imposing
remedies, phase-2 clearances subject to remedies are decided under Art.8(2) with imposition of remedies. Prohibitions are decided under Art.8(3).

Cases that are referred back to national competition authorities are decided either under Art.4(4) or Art.9(3). Lastly, all other cases were included in the outcome category "other." These cases contain, for example, cases decided under Art.14 (fines for supplying incorrect or incomplete information or for putting into effect a concentration), Art.7(3) (derogation from suspension obligation imposed under 7(1)), or Art.22 (where a member state asks the EC to treat a specific merger case).

Table 1 reports the number of phase-1 clearances, phase-1 remedies, phase-2 clearances, phase-2 remedies, prohibitions, withdrawals, referrals to member states, and other decisions. Out of the 5,196 merger cases included in the database, about 95% of the cases are either cleared or cleared subject to remedies in phase-1. Only in about 3.5% of the merger cases does DG COMP initiate an in depth phase-2 investigation. The table also shows that once a phase-2 investigation is initiated, an unconditional clearance is rather unlikely. In five merger cases, the merging parties withdrew the transaction during the phase-2 investigation. As discussed in section 2, withdrawing a merger in phase-2 of the investigation process could be regarded as equivalent to a prohibition since parties often withdraw a merger before an actual prohibition by DG COMP takes place.

Table 1: Type of Decisions, 1990-2014

<table>
<thead>
<tr>
<th>Type of decision</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase-1 clearance</td>
<td>4,691</td>
<td>90.28</td>
</tr>
<tr>
<td>Phase-1 remedy</td>
<td>239</td>
<td>4.60</td>
</tr>
<tr>
<td>Phase-2 clearance</td>
<td>51</td>
<td>0.98</td>
</tr>
<tr>
<td>Phase-2 remedy</td>
<td>104</td>
<td>2.00</td>
</tr>
<tr>
<td>Prohibition</td>
<td>19</td>
<td>0.37</td>
</tr>
<tr>
<td>Phase-1 withdrawal</td>
<td>2</td>
<td>0.04</td>
</tr>
<tr>
<td>Phase-2 withdrawal</td>
<td>5</td>
<td>0.10</td>
</tr>
<tr>
<td>Referral to MS</td>
<td>69</td>
<td>1.33</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
<td>0.31</td>
</tr>
<tr>
<td>Total</td>
<td>5,196</td>
<td>100.00</td>
</tr>
</tbody>
</table>

In 69 merger cases (which corresponds to 406 product/geographic market observations in the dataset), the case is referred back to the national competition authority of the member
state. "Other" comprises 16 decision documents, as discussed above.

Lastly, the database also contains the variable simplified. This indicator variable is equal to one if the case was settled under a "simplified procedure." Since 2000, the EC has introduced "simplified procedures" for those merger notifications that are very likely to be pro-competitive in nature, i.e. that do not raise competitive concerns. In particular, conglomerate mergers, horizontal mergers with joint market shares below 20% and vertical mergers where the notifying parties have less than 30% market share in upstream and downstream markets are notified under these procedures. Information on whether a particular case was settled under simplified procedures can be downloaded from the EC’s website and combined with our dataset via the case number.

Table 2 summarizes this variable by type of decision for the years 2000-2014. Since its introduction, 52% of the merger cases have been notified under simplified procedures. All of these cases have been decided in phase-1, almost entirely as phase-1 clearances.

<table>
<thead>
<tr>
<th>Type of decision</th>
<th>0</th>
<th>1</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase-1 clearance</td>
<td>1,628</td>
<td>2,221</td>
<td>0.58</td>
<td>0.494</td>
</tr>
<tr>
<td>Phase-1 remedy</td>
<td>189</td>
<td>1</td>
<td>0.01</td>
<td>0.073</td>
</tr>
<tr>
<td>Phase-2 clearance</td>
<td>36</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Phase-2 remedy</td>
<td>74</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Prohibition</td>
<td>10</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Phase-1 withdrawal</td>
<td>0</td>
<td>2</td>
<td>1.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Phase-2 withdrawal</td>
<td>5</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Referral to MS</td>
<td>63</td>
<td>0</td>
<td>0.00</td>
<td>0.000</td>
</tr>
<tr>
<td>Other</td>
<td>13</td>
<td>1</td>
<td>0.07</td>
<td>0.267</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>2,018</td>
<td>2,225</td>
<td>0.52</td>
<td>0.499</td>
</tr>
</tbody>
</table>

All of the variables containing basic information about the decision vary at the merger level.

Figure 1 shows the yearly number of merger notifications, phase-1 merger cases, mergers cleared subject to remedies (phase-1 and phase-2) and prohibitions between 1990 and 2014. Overall, merger notifications show an increasing trend with a big drop around 2002. Most of the notified mergers are decided in phase-1: Phase-1 mergers track the number
of notifications very closely. The number of mergers cleared subject to remedies increased dramatically after 1996 and oscillates between 20 and 30 per year in more recent years. The number of prohibitions vary between zero and three prohibitions per year. Table 20 in Appendix A.5 shows the number of notifications and decisions per year.

Figure 1: Enforcement History of DG COMP Merger Cases, 1990-2014

We report notified cases per notification year and phase-1 cases per decision year (left axis) as well as remedies (phase-1 and phase-2) and prohibitions per decision year (right axis). We exclude all cases where the decision type is "other".

5.2 Type of Merger

The dataset additionally contains some information about the nature of the merger.

The variable vertical is a dummy variable equal to one if product/geographic markets are vertically affected by the merger and zero otherwise. The variable conglomerate is a
dummy variable that is equal to one if the merger is conglomerate in nature. In addition, we recorded whether DG COMP considered the merger to be a full merger and/or a joint venture. This information is stored in the dummy variables `fullmerger` and `jv` respectively.

While the variables `vertical` and `conglomerate` are market specific (and hence can vary within a particular merger case), the variables `fullmerger` and `jv` vary at the merger level.

While 8,421 product/geographic markets were affected vertically by the respective merger (corresponding to 27% of observations), mergers had conglomerate aspects in only 525 (about 2% of observations) of the affected markets (see Table 3).

Table 3: Indicator Variables for Vertical and Conglomerate Merger, 1990-2014

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>conglomerate</td>
<td>30,926</td>
<td>525</td>
<td>0.017</td>
<td>0.128</td>
</tr>
<tr>
<td>vertical</td>
<td>23,030</td>
<td>8,421</td>
<td>0.268</td>
<td>0.443</td>
</tr>
</tbody>
</table>

Out of the 5,196 mergers, 2,872 (55%) are full mergers and 1,908 (37%) are joint ventures (see Table 4).

Note also that the variables `fullmerger` and `jv` are not mutually exclusive. If DG COMP considers the merger to be a full merger, the firms merge in such a way that the target is completely controlled by the acquiring firm. If the merger is a joint venture, the two firms merge only for a particular purpose e.g. by founding a R&D joint-venture. If both variables are equal to zero, the firms merge but the acquiring firm does not fully control the target firm. These cases are partial mergers, in most cases acquisitions of shares.

Table 4: Indicator Variables for Full Merger and Joint Venture, 1990-2014

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full merger</td>
<td>2,324</td>
<td>2,872</td>
<td>0.55</td>
<td>0.497</td>
</tr>
<tr>
<td>Joint Venture</td>
<td>3,288</td>
<td>1,908</td>
<td>0.37</td>
<td>0.482</td>
</tr>
</tbody>
</table>
5.3 Market Definition

As previously explained, the unit of observation in the merger database is a particular market concerned by the decision. A market is defined as a combination of a product and a geographic market. We recorded a number of variables that describe the particular market.

The variable broadmarket is a variable that we created in order to make different product markets comparable across decisions. It provides a more standardized description of the product market and contains about 460 broad product markets. We further harmonized these broad product markets into 86 product market categories. Table 21 in Appendix A.6 reports the number of notifications, phase-1 and phase-2 observations for these 86 product market categories. Many observations concern air transport and travel, banking, financial services and insurance, chemicals, communication services, energy supply, food and beverages, as well as pharmaceuticals.

The variable prodmarket is a string variable that contains the exact product market as specified in the decision document.

The variables national, euwide, ww, and open are dummy variables referring to the geographic market definition of DG COMP. The variables national, euwide, and ww are equal to one whenever the geographic market is considered to be national, EU wide, or worldwide, respectively. If DG COMP considered an exact definition of the geographic market unnecessary, the variable open is equal to one. The string variable geogmarket contains the actual verbal description DG COMP used to indicate the geographic market in the decision document.

Table 5 shows that DG COMP considers the market to be national in almost 60%, EU wide in about 20%, and worldwide in about 9% of the product/geographic markets. In 12% of the cases, DG COMP left the geographic market definition open.

Table 5: Geographic Market Definition, 1990-2014

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>National</td>
<td>13,004</td>
<td>18,447</td>
<td>0.59</td>
<td>0.492</td>
</tr>
<tr>
<td>EU wide</td>
<td>25,194</td>
<td>6,257</td>
<td>0.20</td>
<td>0.399</td>
</tr>
<tr>
<td>Worldwide</td>
<td>28,490</td>
<td>2,961</td>
<td>0.09</td>
<td>0.292</td>
</tr>
<tr>
<td>Left open</td>
<td>27,666</td>
<td>3,785</td>
<td>0.12</td>
<td>0.325</td>
</tr>
</tbody>
</table>
Table 6 reports the geographic market definition by type of decision. While in phase-1 clearance cases the geographic market definition is often left open, mergers that are either prohibited or only cleared subject to remedies tend to affect narrow (i.e. national) geographic markets. Also note that in cases that were referred back to national competition authorities (outcome "Referral to MS"), the geographic market is evidently either defined as national or the geographic market definition is left open.

Table 6: Mean Geographic Market Definition by Decision Type, 1990-2014

<table>
<thead>
<tr>
<th>Type of Decision</th>
<th>National</th>
<th>EU wide</th>
<th>Worldwide</th>
<th>Left open</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase-1 clearance</td>
<td>0.33</td>
<td>0.17</td>
<td>0.07</td>
<td>0.43</td>
</tr>
<tr>
<td>Phase-1 remedy</td>
<td>0.64</td>
<td>0.24</td>
<td>0.08</td>
<td>0.04</td>
</tr>
<tr>
<td>Phase-2 clearance</td>
<td>0.35</td>
<td>0.31</td>
<td>0.27</td>
<td>0.07</td>
</tr>
<tr>
<td>Phase-2 remedy</td>
<td>0.58</td>
<td>0.31</td>
<td>0.09</td>
<td>0.02</td>
</tr>
<tr>
<td>Prohibition</td>
<td>0.56</td>
<td>0.11</td>
<td>0.24</td>
<td>0.09</td>
</tr>
<tr>
<td>Phase-1 withdrawal</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Phase-2 withdrawal</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Referral to MS</td>
<td>0.99</td>
<td>0.00</td>
<td>0.00</td>
<td>0.01</td>
</tr>
<tr>
<td>Other</td>
<td>0.44</td>
<td>0.13</td>
<td>0.13</td>
<td>0.31</td>
</tr>
</tbody>
</table>

We take the mean of the geographic market definition indicator variables to collapse the information from market level to merger level.

The geographic market definition can also vary across product/geographic markets within a given merger case. This is the case in 1,064 of the merger cases (about 20% of the cases contained in the database).

5.4 Classification of Remedies

The dataset also includes some information about the nature of remedies proposed by the merging parties.

While the dummy variable remedies is equal to one whenever the merging parties proposed any remedies to address DG COMP’s competitive concerns, the dummy variables structural and behavioral are indicator variables for whether structural (i.e. divestitures) and/or behavioral remedies were proposed. We do not distinguish whether a remedy affects

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2We first collapse the dataset from market to merger level by taking the mean of the geographic market indicator variables by merger case. We then report the mean market definition across all mergers included in the database.
only a particular market or not, hence the variables related to proposed remedies all vary at the merger level. As it is often difficult to assess whether a particular measure, for example a certain divestiture, affects one or several concerned markets, we prefer to define the remedy variables at the merger level.

In about 7% of the merger cases, remedies were proposed by the notifying parties. As DG COMP prefers structural to behavioral remedies, it is not surprising that in 5% of the cases structural remedies were proposed while behavioral remedies were proposed in only 3.5% of the merger cases (see Table 7).

Note also that the variables remedies, structural, and behavioral are equal to one whenever the decision document contains information about remedies proposed by the merging parties. This implies that even for a merger that was prohibited by DG COMP, the variable remedies can be equal to one. This is the case whenever the merging parties proposed remedies but DG COMP considered these insufficient to address the competitive concerns and, thus, ultimately prohibited the merger.

Table 7: Indicator Variables for Proposed Remedies, 1990-2014

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remedies</td>
<td>4,845</td>
<td>351</td>
<td>0.068</td>
<td>0.251</td>
</tr>
<tr>
<td>Behavioural remedies</td>
<td>5,016</td>
<td>180</td>
<td>0.035</td>
<td>0.183</td>
</tr>
<tr>
<td>Structural remedies</td>
<td>4,931</td>
<td>265</td>
<td>0.051</td>
<td>0.220</td>
</tr>
</tbody>
</table>

5.5 Competitive Concerns

Related to proposed remedies, we also included an indicator variable concern in the dataset that is a dummy variable indicating which specific product/geographic market affected by the merger (granted that the merger concerned multiple product markets) raised concerns on part of DG COMP.

The indicator variable barriers is equal to one if DG COMP considered barriers to entry to exist in the concerned market (hence, this variable varies at the market level). Similarly, foreclosure is an indicator for whether DG COMP raised concerns that the merger would foreclose other firms in a particular market.

Table 8 summarized the information regarding competitive concerns. While DG COMP
Table 8: Indicator Variables for Competitive Concerns, 1990-2014

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>1</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concerns</td>
<td>27,769</td>
<td>3,682</td>
<td>0.117</td>
<td>0.322</td>
</tr>
<tr>
<td>Entry barriers</td>
<td>27,830</td>
<td>3,621</td>
<td>0.115</td>
<td>0.319</td>
</tr>
<tr>
<td>Risk of Foreclosure</td>
<td>30,614</td>
<td>837</td>
<td>0.027</td>
<td>0.161</td>
</tr>
</tbody>
</table>

raised competitive concerns and considered entry barriers to exist in about 12% of the affected markets, it found a risk that the merger would foreclose competitors in only about 3% of the markets.

5.6 Competitors

In addition to the names of the acquiring and the target firm, we also included the names of competitors of the merging parties identified by DG COMP, in so far as such information is contained in the decision document. The identity and number of competitors varies by product/geographic market concerned. We hence record the identity of between 0 and 15 competitors (stored in the variables rival1 to rival15).

In a few cases, DG COMP identifies more than 15 competitors of the merging parties. Given that this is the case for very few mergers and that competitors are typically very small in these cases, we considered the informational gain from keeping the identity of more than 15 competitors small compared to the increased unhandiness of a dataset containing many string variables.

The database also contains the variables compcount, which is a count of the number of competitors in the concerned market, and misscomp, an indicator variable equal to one if no information on competitors is available. We coded the variable compcount as equal to zero whenever we have no information on competitors. In these cases, the indicator misscomp is equal to one. Both variables vary at the market level. Missing information on competitors can have two reasons, either the merging parties have 100% market share in a given market or there is just no information on competitors in the decision document.

As Table 8 shows, there is no information on competitors in about 56% of the markets. In about 38% of the product/geographic market observations, we have information on between one and five competitors. Information on more than five competitors is very scarce.
Table 9: Number of Competitors, 1990-2014

<table>
<thead>
<tr>
<th>Number of competitors</th>
<th>frequency</th>
<th>percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>17,671</td>
<td>56.19</td>
</tr>
<tr>
<td>1</td>
<td>1,909</td>
<td>6.07</td>
</tr>
<tr>
<td>2</td>
<td>2,746</td>
<td>8.73</td>
</tr>
<tr>
<td>3</td>
<td>3,514</td>
<td>11.17</td>
</tr>
<tr>
<td>4</td>
<td>2,183</td>
<td>6.94</td>
</tr>
<tr>
<td>5</td>
<td>1,468</td>
<td>4.67</td>
</tr>
<tr>
<td>6</td>
<td>732</td>
<td>2.33</td>
</tr>
<tr>
<td>7</td>
<td>461</td>
<td>1.47</td>
</tr>
<tr>
<td>8</td>
<td>286</td>
<td>0.91</td>
</tr>
<tr>
<td>9</td>
<td>136</td>
<td>0.43</td>
</tr>
<tr>
<td>10</td>
<td>117</td>
<td>0.37</td>
</tr>
<tr>
<td>&gt;10</td>
<td>228</td>
<td>0.72</td>
</tr>
<tr>
<td>Total</td>
<td>31,451</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Zero competitors means that there is no information on competitors in the decision document. This is either the case if the merger is a merger to monopoly or DG Comp does not mention competitor names in the decision document.

Table 10: Indicator Variable for Missing Competitor Information by Decision Type, 1990-2014

<table>
<thead>
<tr>
<th>Type of decision</th>
<th>No information available</th>
<th>Information available</th>
<th>mean</th>
<th>standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase-1 decision</td>
<td>16,124</td>
<td>11,546</td>
<td>0.58</td>
<td>0.493</td>
</tr>
<tr>
<td>Phase-2 decision</td>
<td>1,140</td>
<td>2,187</td>
<td>0.34</td>
<td>0.475</td>
</tr>
<tr>
<td>Referral to MS</td>
<td>363</td>
<td>43</td>
<td>0.89</td>
<td>0.308</td>
</tr>
<tr>
<td>Other</td>
<td>44</td>
<td>4</td>
<td>0.92</td>
<td>0.279</td>
</tr>
<tr>
<td>Total</td>
<td>17,671</td>
<td>13,780</td>
<td>0.56</td>
<td>0.496</td>
</tr>
</tbody>
</table>
Table 10 reports the number of product/geographic markets without information on competitors (variable misscomp is equal to one) by type of decisions. Phase-1 cases comprise phase-1 clearances, phase-1 remedies, and phase-1 withdrawals, while phase-2 cases are phase-2 clearances, phase-2 remedies, prohibitions, and phase-2 withdrawals. The table highlights that information on competitors is mostly missing in phase-1 case documents: in 58% of the phase-1 case observations no information on competitors is available while this is only the case for 34% of the phase-2 product/geographic market observations.

Table 11: Mean Number of Competitors, 1990-2014

<table>
<thead>
<tr>
<th>Number of competitors</th>
<th>Number of notifications</th>
<th>Percent of notifications</th>
<th>Number of phase-1 decisions</th>
<th>Percent of phase-1 decisions</th>
<th>Number of phase-2 decisions</th>
<th>Percent of phase-2 decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>3,259</td>
<td>62.7</td>
<td>3,169</td>
<td>64.3</td>
<td>17</td>
<td>9.5</td>
</tr>
<tr>
<td>1</td>
<td>539</td>
<td>10.4</td>
<td>505</td>
<td>10.2</td>
<td>30</td>
<td>16.8</td>
</tr>
<tr>
<td>2</td>
<td>475</td>
<td>9.1</td>
<td>428</td>
<td>8.7</td>
<td>43</td>
<td>24.0</td>
</tr>
<tr>
<td>3</td>
<td>405</td>
<td>7.8</td>
<td>356</td>
<td>7.2</td>
<td>48</td>
<td>26.8</td>
</tr>
<tr>
<td>4</td>
<td>258</td>
<td>5.0</td>
<td>240</td>
<td>4.9</td>
<td>18</td>
<td>10.1</td>
</tr>
<tr>
<td>5</td>
<td>121</td>
<td>2.3</td>
<td>109</td>
<td>2.2</td>
<td>11</td>
<td>6.1</td>
</tr>
<tr>
<td>6</td>
<td>60</td>
<td>1.2</td>
<td>57</td>
<td>1.2</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>7</td>
<td>38</td>
<td>0.7</td>
<td>33</td>
<td>0.7</td>
<td>5</td>
<td>2.8</td>
</tr>
<tr>
<td>8</td>
<td>19</td>
<td>0.4</td>
<td>17</td>
<td>0.3</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>9</td>
<td>6</td>
<td>0.1</td>
<td>5</td>
<td>0.1</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>0.2</td>
<td>8</td>
<td>0.2</td>
<td>2</td>
<td>1.1</td>
</tr>
<tr>
<td>&gt;10</td>
<td>5</td>
<td>0.1</td>
<td>5</td>
<td>0.1</td>
<td>0</td>
<td>0.0</td>
</tr>
<tr>
<td>Total</td>
<td>5,196</td>
<td>100.0</td>
<td>4,932</td>
<td>100.1</td>
<td>179</td>
<td>100.0</td>
</tr>
</tbody>
</table>

We take the mean number of competitors rounded to the nearest integer to collapse the information from market level to merger level. Note that phase-1 and phase-2 decisions do not add up to the number of notifications due to the 69 referrals to Member States and the 16 cases classified as ‘other’.

Table 11 reports instead the mean number of competitors for notifications, phase-1, and phase-2 decisions. There is no information on the number of competitors in about 63% of notified mergers and 64% of phase-1 decisions. However, it is much more likely that DG COMP investigates the competitors in detail in a phase-2 investigation. Thus, there is no information on competitors in only about 10% of phase-2 decisions, while in about 85% of phase-2 decisions there is information on between one and five competitors.

3 We collapse the dataset from market to merger level by taking the mean number of competitors rounded to the nearest integer by merger case.
5.7 Market Shares

We collected data on the market shares of the merging parties as well as the competitors, where available. This information was collected from DG COMP’s competitive assessment in the decision document. Thus, data availability is constrained by the extent of DG COMP’s analysis.

Given that DG COMP generally reports only the range of the market shares in the publicly available documents, we defined the market shares to be equal to the central value of the interval (see section 6 for an illustration).

Market share information is collected at the level of the relevant product/geographic market combination, hence, in cases concerning multiple product/geographic markets, we collected market shares of the merging parties and the competitors for each individual market concerned whenever this information is available.

The market shares of the merging parties are stored in the variables `acq1ms`, `acq2ms`, `acq3ms`, `tar1ms`, and `tar2ms` for acquiring firms 1 to 3 and target firms 1 and 2, respectively, while the variable `Sum` contains the sum of the market shares of the merging parties in percent. In some cases, the decision document only contains information on the sum of the merging parties’ market shares but not on individual market shares. Competitors’ market shares (in percent) are contained in the variables `riv1ms` to `riv15ms` if available.

Table 12 shows summary statistics for the market shares of the merging firms as well as competitors. The average market share of the primary acquiring firm is about 20%, the average market share of the primary target is about 18%, and the average joint market share of the merging parties is about 33%. However, there is large variability in the data as the high standard deviations show. The table also reports the market shares of the second and third acquiring firm as well as of the second target firm. These secondary merging parties are in general much smaller: the mean market shares of these firms lie only between 5% and 8%. The mean market share of the first competitor is relatively high, at an average of 25%. Competitors’ market shares decrease as the number of competitors increases: The average market share of the second competitor is about 14%, while the average market share of competitor 15 is only about 2%.

Table 12 also reports the number of non-missing observations in the column labelled

\[\text{\footnotesize \text{(1)} \text{\textsuperscript{4}} If, for example, the market share range indicated is [0-10] percent, we record a market share of 5 percent. However, if the interval given in the decision is only 5 percentage points wide, we report the conservative lower market share bound. If for example the market share interval is [15-20] percent, we report 15 percent market share.}\]
"observations." As this column shows, market share information is relatively scarce: While information on the joint market share of the merging parties is available in 23,136 out of 31,451 markets (hence in about 74% of the markets), information on at least one competitor’s market share is available in only about 33% of the markets. The last column labelled "cases" counts the number of merger cases for which the respective market share information is available in at least one of the concerned product/geographic market combinations. Information on primary acquirer’s and primary target’s market shares is available in about 1,600 out of the 5,196 merger cases.

Table 12: Summary Statistics Market Shares and HHI

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>sd</th>
<th>min</th>
<th>max</th>
<th>observations</th>
<th>cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acquirer 1 market share</td>
<td>19.7</td>
<td>20.84</td>
<td>0</td>
<td>100</td>
<td>13,683</td>
<td>1,576</td>
</tr>
<tr>
<td>Acquirer 2 market share</td>
<td>8.2</td>
<td>15.17</td>
<td>0</td>
<td>100</td>
<td>893</td>
<td>181</td>
</tr>
<tr>
<td>Acquirer 3 market share</td>
<td>5.3</td>
<td>8.81</td>
<td>0</td>
<td>30</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Target 1 market share</td>
<td>17.5</td>
<td>21.04</td>
<td>0</td>
<td>100</td>
<td>13,701</td>
<td>1,585</td>
</tr>
<tr>
<td>Target 2 market share</td>
<td>7.8</td>
<td>15.10</td>
<td>0</td>
<td>100</td>
<td>385</td>
<td>76</td>
</tr>
<tr>
<td>Joint market share</td>
<td>32.6</td>
<td>23.65</td>
<td>0</td>
<td>100</td>
<td>23,136</td>
<td>2,468</td>
</tr>
<tr>
<td>Competitor 1 market share</td>
<td>24.8</td>
<td>16.34</td>
<td>0</td>
<td>100</td>
<td>10,354</td>
<td>1,645</td>
</tr>
<tr>
<td>Competitor 2 market share</td>
<td>14.1</td>
<td>9.76</td>
<td>0</td>
<td>100</td>
<td>8,468</td>
<td>1,532</td>
</tr>
<tr>
<td>Competitor 3 market share</td>
<td>9.7</td>
<td>7.55</td>
<td>0</td>
<td>95</td>
<td>5,988</td>
<td>1,323</td>
</tr>
<tr>
<td>Competitor 4 market share</td>
<td>7.5</td>
<td>6.14</td>
<td>0</td>
<td>93</td>
<td>3,210</td>
<td>949</td>
</tr>
<tr>
<td>Competitor 5 market share</td>
<td>6.4</td>
<td>5.81</td>
<td>0</td>
<td>65</td>
<td>1,798</td>
<td>605</td>
</tr>
<tr>
<td>Competitor 6 market share</td>
<td>5.7</td>
<td>6.22</td>
<td>0</td>
<td>85</td>
<td>957</td>
<td>348</td>
</tr>
<tr>
<td>Competitor 7 market share</td>
<td>4.9</td>
<td>6.15</td>
<td>0</td>
<td>95</td>
<td>551</td>
<td>191</td>
</tr>
<tr>
<td>Competitor 8 market share</td>
<td>5.4</td>
<td>6.12</td>
<td>0</td>
<td>45</td>
<td>330</td>
<td>111</td>
</tr>
<tr>
<td>Competitor 9 market share</td>
<td>4.6</td>
<td>5.26</td>
<td>0</td>
<td>45</td>
<td>202</td>
<td>70</td>
</tr>
<tr>
<td>Competitor 10 market share</td>
<td>4.7</td>
<td>5.62</td>
<td>0</td>
<td>35</td>
<td>139</td>
<td>49</td>
</tr>
<tr>
<td>Competitor 11 market share</td>
<td>4.1</td>
<td>5.91</td>
<td>0</td>
<td>45</td>
<td>102</td>
<td>34</td>
</tr>
<tr>
<td>Competitor 12 market share</td>
<td>3.6</td>
<td>3.97</td>
<td>0</td>
<td>20</td>
<td>78</td>
<td>21</td>
</tr>
<tr>
<td>Competitor 13 market share</td>
<td>4.2</td>
<td>6.64</td>
<td>0</td>
<td>35</td>
<td>64</td>
<td>17</td>
</tr>
<tr>
<td>Competitor 14 market share</td>
<td>2.4</td>
<td>3.03</td>
<td>0</td>
<td>15</td>
<td>45</td>
<td>13</td>
</tr>
<tr>
<td>Competitor 15 market share</td>
<td>2.0</td>
<td>4.34</td>
<td>0</td>
<td>25</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>Post-merger HHI (lower bound)</td>
<td>2156.2</td>
<td>2371.89</td>
<td>0</td>
<td>10000</td>
<td>23,136</td>
<td>2,468</td>
</tr>
<tr>
<td>Post-merger HHI (upper bound)</td>
<td>5643.0</td>
<td>2242.93</td>
<td>650</td>
<td>10000</td>
<td>23,136</td>
<td>2,468</td>
</tr>
<tr>
<td>Delta HHI</td>
<td>443.9</td>
<td>778.83</td>
<td>0</td>
<td>8450</td>
<td>12,957</td>
<td>1,467</td>
</tr>
</tbody>
</table>
5.8 Concentration Measures

We calculated the level of the post-merger Herfindahl-Hirschman-Index (HHI) in case that data on the market shares of competitors was available (variables \texttt{hhi\_low} and \texttt{hhi\_high} ranging from 0 to 10,000).

The variable \texttt{hhi\_low} is a lower bound of the post-merger HHI: it is calculated as the square of the merging parties joint markets share plus the sum of squared market shares of competitors whenever information on competitors’ market shares is available. This assumes that competitors are very small, whenever market share information of competitors is not available but market shares do not add up to 100%. The variable \texttt{hhi\_high}, on the other hand, is an upper bound for the post-merger HHI: it adds the square of all missing market shares (100% minus all available market share information) to \texttt{hhi\_low}. This hence treats all missing market share information as one missing competitor.

From the merging parties’ market shares, we also calculated the increase in HHI due to the merger in the specific markets, stored in the variable \texttt{deltahhi}. In case of one acquiring and one target firm, it is calculated as $2 \cdot \text{acq}1\text{ms} \cdot \text{tar}1\text{ms}$. As the market share information is specific to a certain product/geographic market combination, the concentration measures also vary at the market level.

Summary statistics for \texttt{hhi\_low}, \texttt{hhi\_high}, and \texttt{deltahhi} are also contained in Table 12. The mean post-merger HHI is between 2,156 (lower bound) and 5,643 (upper bound), while the mean increase in HHI due to the merger is about 440.

5.9 Complexity

The variable \texttt{complexity} contains a count of the relevant product/geographic markets concerned by the merger. Hence, it varies at the merger level.

The merger cases included in the database concern on average 6 product/geographic market combinations, varying between a minimum of 1 and 245 concerned markets (see Table 13).

\footnote{We distinguish cases with one acquirer and one target, two acquirers and one target, three acquirers and one target, one acquirer and two targets, two acquirers and two targets, and three acquirers and two targets. In a case involving, for example, two acquiring and one target firm, the change in HHI is calculated as $2 \cdot \text{acq}1\text{ms} \cdot \text{acq}2\text{ms} + 2 \cdot \text{acq}1\text{ms} \cdot \text{tar}1\text{ms} + 2 \cdot \text{acq}2\text{ms} \cdot \text{tar}1\text{ms}$. The change for the other cases is calculated accordingly.}
Table 13: Summary Statistics Complexity

<table>
<thead>
<tr>
<th></th>
<th>mean</th>
<th>sd</th>
<th>min</th>
<th>max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of markets</td>
<td>6.05</td>
<td>13.37</td>
<td>1</td>
<td>245</td>
</tr>
<tr>
<td>Observations</td>
<td>5196</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.10 Sector Information

Lastly, we include information on which NACE sector(s) are concerned by the proposed merger. NACE codes are an industry classification system used by the European Union to classify different economic activities. Information on the main NACE sectors concerned by the mergers can be downloaded from the EC’s website and combined with the dataset via the case number.

Merger cases can concern multiple NACE sectors. The dataset contains all NACE codes reported on the EC’s website (dropping duplicate NACE codes). They are stored in the variables `nace1` to `nace15`. Table 14 reports the number of merger cases with information on no up to 15 NACE codes, distinguishing phase-1 and phase-2 cases as well as referrals to member states and other decision documents. For 3,894 out of the 5,196 cases, one NACE code is reported. Note that for 140 cases there is no information on the NACE code. Most of these cases are phase-1 cases. Only in a few cases are more than three NACE codes reported.

Table 15 reports the number of notifications, phase-1, and phase-2 decisions by primary NACE section (the most aggregate classification level). By far the most merger cases with 2,257 out of 5,196 cases concern mergers in the manufacturing industry, followed by wholesale and retail trade (487 cases), information and communication (478 cases), and financial and insurance activities (477 cases).

Note that phase-1 and phase-2 decisions do not always add up to the number of notifications within a given NACE section due to the 69 referrals to member states and the 16 cases classified as 'other.'

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6See [http://ec.europa.eu/competition/mergers/cases/index/nace_all.html](http://ec.europa.eu/competition/mergers/cases/index/nace_all.html) for a list of NACE codes.

7Following our question on whether an allocation of NACE codes to the merging parties is possible, the merger registry informed us, that the order in which NACE codes are reported is random and that NACE codes cannot be allocated to acquiring and target firms.
Table 14: Number of NACE Codes by Decision Type, 1990-2014

<table>
<thead>
<tr>
<th>Type of Decision</th>
<th>No</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>11</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>NACE code</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase-1 decision</td>
<td>107</td>
<td>3,715</td>
<td>742</td>
<td>235</td>
<td>76</td>
<td>30</td>
<td>19</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Phase-2 decision</td>
<td>2</td>
<td>138</td>
<td>25</td>
<td>6</td>
<td>5</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Referral to MS</td>
<td>21</td>
<td>35</td>
<td>8</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>140</td>
<td>3,894</td>
<td>775</td>
<td>243</td>
<td>33</td>
<td>20</td>
<td>3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

6 Case Example

In the following, the assessment of different characteristics concerning EU-merger decisions is explained with the help of one sample case, illustrating many of the different core and non-core elements that are potentially relevant for all (non-simplified) cases. The case example is the case number 623 Kimberley-Clark/Scott, an Art. 8(2) decision.

Most of the variables described above are collected by skimming the merger decisions and transcribing the main information concerning the characteristics of the merger firstly into an Excel spreadsheet. In the following, the collection is hence explained in a step-by-step procedure. Note, again, that the level of observation are product/geographic market combinations, thus for each case, the database contains as many observations (rows) as analyzed markets. This implies that some general information about the merger (e.g., the notification date) is the same for each product market involved by the merger and, therefore, it appears in all rows of a decision. In the case of the merger between Kimberley-Clark and Scott, three product markets were concerned by the transaction, hence there are three observations for this merger case.

Figure 2 shows the basic information for the merger decision. Besides the case number casen that serves as an identifier, the type of decision and the notification and decision dates are collected. The type of decision is assigned either to the variable decision — if it is decided according to Article 6(1)(b) or 6(1)(c) during phase-1 — or to decision2 — if the case under investigation is decided according to article 8(1), 8(2) or 8(3) during phase-2. The variable notifdat captures the notification date and phase1dat and phase2dat the decision dates of phase-1 and phase-2 cases, respectively.
Table 15: Decisions by Primary NACE Section, 1990-2014

<table>
<thead>
<tr>
<th>NACE section</th>
<th>Description</th>
<th>Notifications</th>
<th>Phase-1 decisions</th>
<th>Phase-2 decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Agriculture, forestry and fishing</td>
<td>38</td>
<td>34</td>
<td>3</td>
</tr>
<tr>
<td>B</td>
<td>Mining and quarrying</td>
<td>135</td>
<td>125</td>
<td>8</td>
</tr>
<tr>
<td>C</td>
<td>Manufacturing</td>
<td>2,257</td>
<td>2,143</td>
<td>103</td>
</tr>
<tr>
<td>D</td>
<td>Electricity, gas, steam and air conditioning supply</td>
<td>281</td>
<td>265</td>
<td>10</td>
</tr>
<tr>
<td>E</td>
<td>Water supply; sewerage; waste management and remediation activities</td>
<td>63</td>
<td>62</td>
<td>0</td>
</tr>
<tr>
<td>F</td>
<td>Construction</td>
<td>90</td>
<td>87</td>
<td>1</td>
</tr>
<tr>
<td>G</td>
<td>Wholesale and retail trade; repair of motor vehicles and motorcycles</td>
<td>487</td>
<td>470</td>
<td>7</td>
</tr>
<tr>
<td>H</td>
<td>Transporting and storage</td>
<td>326</td>
<td>313</td>
<td>7</td>
</tr>
<tr>
<td>I</td>
<td>Accommodation and food service activities</td>
<td>65</td>
<td>63</td>
<td>1</td>
</tr>
<tr>
<td>J</td>
<td>Information and communication</td>
<td>478</td>
<td>444</td>
<td>27</td>
</tr>
<tr>
<td>K</td>
<td>Financial and insurance activities</td>
<td>477</td>
<td>475</td>
<td>2</td>
</tr>
<tr>
<td>L</td>
<td>Real estate activities</td>
<td>87</td>
<td>87</td>
<td>0</td>
</tr>
<tr>
<td>M</td>
<td>Professional, scientific and technical activities</td>
<td>60</td>
<td>58</td>
<td>2</td>
</tr>
<tr>
<td>N</td>
<td>Administrative and support service activities</td>
<td>105</td>
<td>100</td>
<td>4</td>
</tr>
<tr>
<td>O</td>
<td>Public administration and defence; compulsory social security</td>
<td>22</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>P</td>
<td>Education</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Q</td>
<td>Human health and social work activities</td>
<td>27</td>
<td>21</td>
<td>0</td>
</tr>
<tr>
<td>R</td>
<td>Arts, entertainment and recreation</td>
<td>38</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td>S</td>
<td>Other services activities</td>
<td>14</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>T</td>
<td>Activities of households as employers; undifferentiated goods - and services - producing activities of households for own use</td>
<td>2</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>140</td>
<td>107</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>5,196</td>
<td>4,932</td>
<td>179</td>
</tr>
</tbody>
</table>

Note that phase-1 and phase-2 decisions do not add up to the number of notifications due to the 69 referrals to Member States and the 16 cases classified as ‘other’.
The information about the merging companies is captured by means of three variables for each of the parties as illustrated in Figure 3. While the variables \textbf{acquirer1} and \textbf{countryacq1} report the acquirer’s name and country, the variable \textbf{acq1ms} indicates its market share in the respective market. Similarly, the information on the company to be acquired is stored in the variables \textbf{target1}, \textbf{countrytar1}, and \textbf{tar1ms}. In some cases, more than two parties are involved (mostly in the case of joint ventures); for these cases additional columns are provided. The variable \textbf{Sum} displays the sum of the acquirer’s and target’s market share after the merger in the specific product market.

Next, data on the outcome of DG COMP’s investigation is collected. The variables shown in Figure 4 deal with the implemented remedies, the theory of harm, and the type of merger proposed. The three variables \textbf{remedies}, \textbf{structural}, and \textbf{behavioral} capture the remedies proposed and discussed by DG COMP. In this case, both structural and behavioral remedies were proposed by the merging parties; hence, all three variables are equal to one.

The variables on the theory of harm include the indicators for barriers of entry, foreclosure, conglomerate concerns, or whether the merger includes a vertical component. In the merger between Kimberley-Clark and Scott, DG COMP raised concerns about barriers of entry.

Lastly, the announced concentration between the parties can either be described as a
full merger between the companies (fullmerger = 1), a joint venture (jv = 1) or a non-full merger (i.e. the acquirer buys only parts of the target: fullmerger and (jv = 0). In this particular case, the transaction between Kimberley-Clark and Scott is a full merger.

Figure 5 illustrates the systematic assessment of the product and geographic market for the case in the Excel spreadsheet. In the decision document, a detailed description of the relevant product and geographic market is provided. Further, the decision contains a competitive assessment in which the relevant market shares of the merging parties and the main competitors are provided for each product market.

In order to make the different product markets comparable across decisions, the variable broad market provides a more standardized description of the product market. In case 623, Kimberley-Clark/Scott, the product markets "toilet paper," "kitchen paper," and "handkerchiefs" can all be summarized under the broader term "paper products." This broader definition allows identifying connections to other cases of the same industry or value chain.

In addition to the product market, the geographic market is captured by a number of variables. The indicator variables national, eu-wide, ww, and open indicate whether the geographic scope of a product market is national, EU-wide, worldwide, or whether there is no geographic market definition provided in the decision. To allow for a more pre-
cise geographic market definition, the variable `geog.market` names the precise geographic market definition used in the decision. In case 623, Kimberley-Clark/Scott, the market of UK and Ireland is perceived as one interrelated market. Thus, the market definition is national but comprises two countries. Hence, using the detailed description of the market in `geog.market`, one could also classify this market as cross-border/regional.

Lastly, figure 6 reports the information on competitors in case 623. In this particular case, the decision document contains information on three competitors, including market shares.
A Appendix

A.1 List of Variables

Table 16: List of Variables Contained in Database

<table>
<thead>
<tr>
<th>Variable</th>
<th>Type</th>
<th>Description</th>
<th>Values at level</th>
</tr>
</thead>
<tbody>
<tr>
<td>case</td>
<td>numeric</td>
<td>Case number as reported in decision document.</td>
<td>merger</td>
</tr>
<tr>
<td>notable</td>
<td>date</td>
<td>Date of notification to DG COMP.</td>
<td>merger</td>
</tr>
<tr>
<td>ddate</td>
<td>date</td>
<td>Date of decision by DG COMP.</td>
<td>merger</td>
</tr>
<tr>
<td>netyear</td>
<td>numeric</td>
<td>Year of notification to DG COMP.</td>
<td>merger</td>
</tr>
<tr>
<td>dceyear</td>
<td>numeric</td>
<td>Year of decision by DG COMP.</td>
<td>merger</td>
</tr>
<tr>
<td>outcome</td>
<td>string</td>
<td>Type of decision.</td>
<td>merger</td>
</tr>
<tr>
<td>simplified</td>
<td>dummy</td>
<td>1 if decided under simplified procedure.</td>
<td>merger</td>
</tr>
<tr>
<td>acquirer1</td>
<td>string</td>
<td>Name of primary acquiring firm.</td>
<td>merger</td>
</tr>
<tr>
<td>countrya1</td>
<td>string</td>
<td>Nationality of primary acquiring firm.</td>
<td>merger</td>
</tr>
<tr>
<td>acquirer2</td>
<td>string</td>
<td>Name of second acquiring firm.</td>
<td>merger</td>
</tr>
<tr>
<td>countrya2</td>
<td>string</td>
<td>Nationality of second acquiring firm.</td>
<td>merger</td>
</tr>
<tr>
<td>acquirer3</td>
<td>string</td>
<td>Name of third acquiring firm.</td>
<td>merger</td>
</tr>
<tr>
<td>countrya3</td>
<td>string</td>
<td>Nationality of third acquiring firm.</td>
<td>merger</td>
</tr>
<tr>
<td>target1</td>
<td>string</td>
<td>Name of primary target firm.</td>
<td>merger</td>
</tr>
<tr>
<td>countryt1</td>
<td>string</td>
<td>Nationality of primary target firm.</td>
<td>merger</td>
</tr>
<tr>
<td>target2</td>
<td>string</td>
<td>Name of second target firm.</td>
<td>merger</td>
</tr>
<tr>
<td>countryt2</td>
<td>string</td>
<td>Nationality of second target firm.</td>
<td>merger</td>
</tr>
<tr>
<td>vertical</td>
<td>dummy</td>
<td>1 if market is vertically affected.</td>
<td>market</td>
</tr>
<tr>
<td>conglomerate</td>
<td>dummy</td>
<td>1 if merger has conglomerate aspects in market.</td>
<td>market</td>
</tr>
<tr>
<td>fullmerger</td>
<td>dummy</td>
<td>1 if merger is a full merger.</td>
<td>merger</td>
</tr>
<tr>
<td>jv</td>
<td>dummy</td>
<td>1 if merger is a joint venture.</td>
<td>merger</td>
</tr>
<tr>
<td>broadmarket</td>
<td>string</td>
<td>Standardized description of product market.</td>
<td>market</td>
</tr>
<tr>
<td>prodmkt</td>
<td>string</td>
<td>Product market as specified in the decision document.</td>
<td>market</td>
</tr>
<tr>
<td>national</td>
<td>dummy</td>
<td>1 if geographic market is defined as national.</td>
<td>market</td>
</tr>
<tr>
<td>euwido</td>
<td>dummy</td>
<td>1 if geographic market is defined as EU.</td>
<td>market</td>
</tr>
<tr>
<td>ww</td>
<td>dummy</td>
<td>1 if geographic market is defined as worldwide.</td>
<td>market</td>
</tr>
<tr>
<td>open</td>
<td>dummy</td>
<td>1 if geographic market definition is left open.</td>
<td>market</td>
</tr>
<tr>
<td>geoemkt</td>
<td>string</td>
<td>Geographic market as specified in decision document.</td>
<td>market</td>
</tr>
<tr>
<td>remedies</td>
<td>dummy</td>
<td>1 if remedies were proposed by the parties.</td>
<td>merger</td>
</tr>
<tr>
<td>structural</td>
<td>dummy</td>
<td>1 if structural remedies were proposed by the parties.</td>
<td>merger</td>
</tr>
<tr>
<td>behavioral</td>
<td>dummy</td>
<td>1 if behavioral remedies were proposed by the parties.</td>
<td>merger</td>
</tr>
<tr>
<td>concern</td>
<td>dummy</td>
<td>1 if DG COMP raised competitive concerns in market.</td>
<td>market</td>
</tr>
<tr>
<td>barriers</td>
<td>dummy</td>
<td>1 if DG COMP finds entry barriers in market.</td>
<td>market</td>
</tr>
<tr>
<td>foreclosures</td>
<td>dummy</td>
<td>1 if DG COMP finds risk of foreclosure in market.</td>
<td>market</td>
</tr>
<tr>
<td>rev11-rev15</td>
<td>string</td>
<td>Names of competitors in market.</td>
<td>market</td>
</tr>
<tr>
<td>compcount numeric</td>
<td>Number of competitors in market.</td>
<td>market</td>
<td></td>
</tr>
<tr>
<td>miscomp</td>
<td>dummy</td>
<td>1 if no information on competitors contained in decision document.</td>
<td>market</td>
</tr>
<tr>
<td>acq1m-acq1lms</td>
<td>numeric</td>
<td>Market shares of acquiring firms in percent.</td>
<td>market</td>
</tr>
<tr>
<td>tar1m-tar2m</td>
<td>numeric</td>
<td>Market shares of target firms in percent.</td>
<td>market</td>
</tr>
<tr>
<td>Jm</td>
<td>numeric</td>
<td>Joint market share of merging parties in percent.</td>
<td>market</td>
</tr>
<tr>
<td>riv1m-riv3m</td>
<td>numeric</td>
<td>Market shares of competitors in market.</td>
<td>market</td>
</tr>
<tr>
<td>hhi_low</td>
<td>numeric</td>
<td>Post-merger HII in market (lower bound).</td>
<td>market</td>
</tr>
<tr>
<td>hhi_high</td>
<td>numeric</td>
<td>Post-merger HII in market (upper bound).</td>
<td>market</td>
</tr>
<tr>
<td>defhifi</td>
<td>numeric</td>
<td>Delta H in market due to merger.</td>
<td>market</td>
</tr>
<tr>
<td>complexity</td>
<td>numeric</td>
<td>Count of the number of concerned markets.</td>
<td>merger</td>
</tr>
<tr>
<td>nace1-nace10</td>
<td>string</td>
<td>NACE codes reported in decision documents.</td>
<td>merger</td>
</tr>
</tbody>
</table>
### A.2 Top 20 Primary Acquiring Firms

Table 17: Top 20 Primary Acquiring Firms, 1990-2014

<table>
<thead>
<tr>
<th>Primary Acquirer</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVENT INTERNATIONAL CORPORATION</td>
<td>24</td>
</tr>
<tr>
<td>GENERAL ELECTRIC COMPANY</td>
<td>21</td>
</tr>
<tr>
<td>DEUTSCHE BANK AG</td>
<td>17</td>
</tr>
<tr>
<td>GOLDMAN SACHS GROUP, INC.</td>
<td>14</td>
</tr>
<tr>
<td>VOLKSWAGEN AG</td>
<td>13</td>
</tr>
<tr>
<td>ELECTRICITé DE FRANCE</td>
<td>12</td>
</tr>
<tr>
<td>GENERAL ELECTRIC</td>
<td>12</td>
</tr>
<tr>
<td>UNITED TECHNOLOGIES CORPORATION</td>
<td>12</td>
</tr>
<tr>
<td>3I GROUP PLC</td>
<td>11</td>
</tr>
<tr>
<td>CVC CAPITAL PARTNERS SICAV-FIS S.A.</td>
<td>11</td>
</tr>
<tr>
<td>PAI PARTNERS S.A.S.</td>
<td>11</td>
</tr>
<tr>
<td>SIEMENS AG</td>
<td>11</td>
</tr>
<tr>
<td>THE CARLYLE GROUP</td>
<td>11</td>
</tr>
<tr>
<td>BERTELSMANN AG</td>
<td>10</td>
</tr>
<tr>
<td>DEUTSCHE BANK</td>
<td>10</td>
</tr>
<tr>
<td>DEUTSCHE POST AG</td>
<td>10</td>
</tr>
<tr>
<td>KKR &amp; CO. L.P.</td>
<td>10</td>
</tr>
<tr>
<td>MITSUBISHI CORPORATION</td>
<td>10</td>
</tr>
<tr>
<td>SIEMENS</td>
<td>10</td>
</tr>
<tr>
<td>THOMSON-CSF</td>
<td>10</td>
</tr>
</tbody>
</table>
### Top 20 Primary Target Firms

Table 18: Top 20 Primary Target Firms, 1990-2014

<table>
<thead>
<tr>
<th>Primary Target</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>MITSUBISHI</td>
<td>6</td>
</tr>
<tr>
<td>SIEMENS</td>
<td>6</td>
</tr>
<tr>
<td>ENDESA</td>
<td>5</td>
</tr>
<tr>
<td>SOLVAY S.A.</td>
<td>5</td>
</tr>
<tr>
<td>ABB</td>
<td>4</td>
</tr>
<tr>
<td>ALSTOM</td>
<td>4</td>
</tr>
<tr>
<td>DEGUSSA</td>
<td>4</td>
</tr>
<tr>
<td>DELPHI CORPORATION</td>
<td>4</td>
</tr>
<tr>
<td>HOECHST AG</td>
<td>4</td>
</tr>
<tr>
<td>IMPERIAL CHEMICAL INDUSTRIES</td>
<td>4</td>
</tr>
<tr>
<td>SHELL</td>
<td>4</td>
</tr>
<tr>
<td>ABN AMRO HOLDING N.V.</td>
<td>3</td>
</tr>
<tr>
<td>BANCA NAZIONALE DEL LAVORO S.P.A.</td>
<td>3</td>
</tr>
<tr>
<td>BASF</td>
<td>3</td>
</tr>
<tr>
<td>BTR</td>
<td>3</td>
</tr>
<tr>
<td>DEUTSCHE TELEKOM</td>
<td>3</td>
</tr>
<tr>
<td>EDISON</td>
<td>3</td>
</tr>
<tr>
<td>GUIDANT</td>
<td>3</td>
</tr>
<tr>
<td>HOWALDTSWERKE-DEUTSCHE WERFT AG</td>
<td>3</td>
</tr>
<tr>
<td>MANNESMANN AG</td>
<td>3</td>
</tr>
</tbody>
</table>
### A.4 Top 20 Primary Acquiring and Target Firm Countries

Table 19: Top 20 Primary Acquiring and Target Firms’ Countries, 1990-2014

<table>
<thead>
<tr>
<th>Country acquiring firm</th>
<th>Country Acquirer</th>
<th>Country Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>1,011</td>
<td>578</td>
</tr>
<tr>
<td>Germany</td>
<td>865</td>
<td>953</td>
</tr>
<tr>
<td>UK</td>
<td>651</td>
<td>692</td>
</tr>
<tr>
<td>France</td>
<td>493</td>
<td>407</td>
</tr>
<tr>
<td>Netherlands</td>
<td>329</td>
<td>395</td>
</tr>
<tr>
<td>Italy</td>
<td>157</td>
<td>275</td>
</tr>
<tr>
<td>Japan</td>
<td>145</td>
<td>85</td>
</tr>
<tr>
<td>Sweden</td>
<td>140</td>
<td>204</td>
</tr>
<tr>
<td>Switzerland</td>
<td>138</td>
<td>106</td>
</tr>
<tr>
<td>Spain</td>
<td>126</td>
<td>193</td>
</tr>
<tr>
<td>Austria</td>
<td>113</td>
<td>117</td>
</tr>
<tr>
<td>Left open</td>
<td>107</td>
<td>181</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>106</td>
<td>59</td>
</tr>
<tr>
<td>Belgium</td>
<td>82</td>
<td>116</td>
</tr>
<tr>
<td>Denmark</td>
<td>77</td>
<td>83</td>
</tr>
<tr>
<td>Finland</td>
<td>67</td>
<td>76</td>
</tr>
<tr>
<td>Canada</td>
<td>60</td>
<td>43</td>
</tr>
<tr>
<td>Norway</td>
<td>56</td>
<td>64</td>
</tr>
<tr>
<td>Missing</td>
<td>36</td>
<td>41</td>
</tr>
<tr>
<td>Jersey</td>
<td>31</td>
<td>11</td>
</tr>
</tbody>
</table>

We display primary acquiring and target firms’ countries for the top 20 primary acquiring firms’ countries.
A.5 Number of Notifications and Decisions over Time

Table 20: Number of Notifications and Decisions by Year, 1990-2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Notifications</th>
<th>Decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>1991</td>
<td>55</td>
<td>49</td>
</tr>
<tr>
<td>1992</td>
<td>43</td>
<td>49</td>
</tr>
<tr>
<td>1993</td>
<td>44</td>
<td>46</td>
</tr>
<tr>
<td>1994</td>
<td>76</td>
<td>71</td>
</tr>
<tr>
<td>1995</td>
<td>91</td>
<td>95</td>
</tr>
<tr>
<td>1996</td>
<td>108</td>
<td>107</td>
</tr>
<tr>
<td>1997</td>
<td>137</td>
<td>119</td>
</tr>
<tr>
<td>1998</td>
<td>178</td>
<td>180</td>
</tr>
<tr>
<td>1999</td>
<td>243</td>
<td>232</td>
</tr>
<tr>
<td>2000</td>
<td>304</td>
<td>311</td>
</tr>
<tr>
<td>2001</td>
<td>314</td>
<td>319</td>
</tr>
<tr>
<td>2002</td>
<td>254</td>
<td>247</td>
</tr>
<tr>
<td>2003</td>
<td>184</td>
<td>194</td>
</tr>
<tr>
<td>2004</td>
<td>226</td>
<td>224</td>
</tr>
<tr>
<td>2005</td>
<td>313</td>
<td>301</td>
</tr>
<tr>
<td>2006</td>
<td>349</td>
<td>348</td>
</tr>
<tr>
<td>2007</td>
<td>388</td>
<td>393</td>
</tr>
<tr>
<td>2008</td>
<td>329</td>
<td>336</td>
</tr>
<tr>
<td>2009</td>
<td>241</td>
<td>233</td>
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<td>2010</td>
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<td>254</td>
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<tr>
<td>2011</td>
<td>283</td>
<td>293</td>
</tr>
<tr>
<td>2012</td>
<td>272</td>
<td>262</td>
</tr>
<tr>
<td>2013</td>
<td>269</td>
<td>266</td>
</tr>
<tr>
<td>2014</td>
<td>235</td>
<td>257</td>
</tr>
<tr>
<td>2015</td>
<td>.</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>5,196</td>
<td>5,196</td>
</tr>
</tbody>
</table>

We count notifications by notification year and decisions by decision year.
### A.6 Decisions by Broad Product Market

Table 21: Decisions by Broad Product Market, 1990-2014

<table>
<thead>
<tr>
<th>Broad product market</th>
<th>Notifications</th>
<th>Phase-1 decisions</th>
<th>Phase-2 decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT and services</td>
<td>66</td>
<td>66</td>
<td>0</td>
</tr>
<tr>
<td>agricultural products</td>
<td>690</td>
<td>382</td>
<td>304</td>
</tr>
<tr>
<td>air transport and travel</td>
<td>1,589</td>
<td>1,294</td>
<td>282</td>
</tr>
<tr>
<td>aircraft avionic equipment</td>
<td>6</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>aircraft supplies</td>
<td>61</td>
<td>3</td>
<td>58</td>
</tr>
<tr>
<td>aircrafts</td>
<td>164</td>
<td>141</td>
<td>23</td>
</tr>
<tr>
<td>airport services</td>
<td>7</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>automation</td>
<td>32</td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>automotive industry</td>
<td>670</td>
<td>639</td>
<td>30</td>
</tr>
<tr>
<td>banking, financial services and insurance</td>
<td>1,835</td>
<td>1,823</td>
<td>11</td>
</tr>
<tr>
<td>betting and gambling</td>
<td>9</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>building materials</td>
<td>685</td>
<td>530</td>
<td>58</td>
</tr>
<tr>
<td>car components</td>
<td>974</td>
<td>946</td>
<td>28</td>
</tr>
<tr>
<td>care and justice services</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>catering and restaurants</td>
<td>42</td>
<td>28</td>
<td>9</td>
</tr>
<tr>
<td>chemicals</td>
<td>2,074</td>
<td>1,883</td>
<td>187</td>
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<tr>
<td>childcare products and toys</td>
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<tr>
<td>communication devices</td>
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<tr>
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<td>1,396</td>
<td>247</td>
</tr>
<tr>
<td>computers (hardware and software)</td>
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<td>801</td>
<td>26</td>
</tr>
<tr>
<td>construction</td>
<td>281</td>
<td>264</td>
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<tr>
<td>consulting</td>
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<tr>
<td>electrical appliances</td>
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<td>976</td>
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<tr>
<td>electricity devices (batteries etc.)</td>
<td>399</td>
<td>381</td>
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<tr>
<td>electricity supply</td>
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<td>6</td>
</tr>
<tr>
<td>electronic components</td>
<td>239</td>
<td>239</td>
<td>0</td>
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<tr>
<td>electronic devices</td>
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<td>43</td>
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<td>energy plants</td>
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<tr>
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<td>36</td>
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<tr>
<td>explosives and weapons</td>
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<td>115</td>
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<tr>
<td>fire fighting equipment</td>
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<td>15</td>
<td>0</td>
</tr>
<tr>
<td>food and beverages</td>
<td>2,266</td>
<td>1,946</td>
<td>246</td>
</tr>
</tbody>
</table>
Table 21: Decisions by Broad Product Market, 1990-2014

<table>
<thead>
<tr>
<th>Broad product market</th>
<th>Notifications</th>
<th>Phase-1 decisions</th>
<th>Phase-2 decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>furniture</td>
<td>79</td>
<td>79</td>
<td>0</td>
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<tr>
<td>glass</td>
<td>4</td>
<td>4</td>
<td>0</td>
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<tr>
<td>healthcare</td>
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<td>60</td>
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</tr>
<tr>
<td>heating systems</td>
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<td>11</td>
<td>0</td>
</tr>
<tr>
<td>industrial engineering</td>
<td>127</td>
<td>69</td>
<td>58</td>
</tr>
<tr>
<td>left open</td>
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<td>243</td>
<td>3</td>
</tr>
<tr>
<td>luxury goods</td>
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<td>17</td>
<td>0</td>
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<td>machinery and equipment</td>
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<td>911</td>
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<td>264</td>
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<td>70</td>
<td>0</td>
</tr>
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<td>51</td>
<td>0</td>
</tr>
<tr>
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<td>594</td>
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<tr>
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<td>21</td>
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</tr>
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<td>2</td>
<td>0</td>
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<tr>
<td>personnel services</td>
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<td>234</td>
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</tr>
<tr>
<td>pet food</td>
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<td>0</td>
</tr>
<tr>
<td>pharmaceuticals</td>
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<td>2,326</td>
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<td>10</td>
<td>9</td>
</tr>
<tr>
<td>plastics</td>
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<td>18</td>
<td>0</td>
</tr>
<tr>
<td>printing</td>
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<td>25</td>
<td>0</td>
</tr>
<tr>
<td>protective equipment</td>
<td>60</td>
<td>60</td>
<td>0</td>
</tr>
<tr>
<td>railway industry</td>
<td>233</td>
<td>137</td>
<td>96</td>
</tr>
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<td>raw materials</td>
<td>699</td>
<td>653</td>
<td>46</td>
</tr>
<tr>
<td>real estate</td>
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<td>151</td>
<td>0</td>
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<td>retail</td>
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<td>232</td>
<td>1</td>
</tr>
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<td>9</td>
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<tr>
<td>security</td>
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<td>6</td>
<td>0</td>
</tr>
<tr>
<td>ships and port services</td>
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<td>99</td>
<td>7</td>
</tr>
<tr>
<td>sports industry</td>
<td>59</td>
<td>59</td>
<td>0</td>
</tr>
</tbody>
</table>
Table 21: Decisions by Broad Product Market, 1990-2014

<table>
<thead>
<tr>
<th>Broad product market</th>
<th>Notifications</th>
<th>Phase-1 decisions</th>
<th>Phase-2 decisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>steel industry</td>
<td>26</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>storage</td>
<td>15</td>
<td>15</td>
<td>0</td>
</tr>
<tr>
<td>textile and clothing</td>
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<td>124</td>
<td>5</td>
</tr>
<tr>
<td>tobacco</td>
<td>99</td>
<td>99</td>
<td>0</td>
</tr>
<tr>
<td>tourism industry</td>
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<td>347</td>
<td>51</td>
</tr>
<tr>
<td>traffic management</td>
<td>41</td>
<td>38</td>
<td>3</td>
</tr>
<tr>
<td>transport and logistics</td>
<td>838</td>
<td>771</td>
<td>52</td>
</tr>
<tr>
<td>utilities</td>
<td>49</td>
<td>32</td>
<td>9</td>
</tr>
<tr>
<td>various</td>
<td>315</td>
<td>294</td>
<td>21</td>
</tr>
<tr>
<td>waste management</td>
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<td>0</td>
</tr>
<tr>
<td>water supply</td>
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<td>16</td>
<td>0</td>
</tr>
<tr>
<td>wood and wood products</td>
<td>20</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31,451</strong></td>
<td><strong>27,670</strong></td>
<td><strong>3,327</strong></td>
</tr>
</tbody>
</table>

Note that phase-1 and phase-2 decisions do not add up to the number of notifications due to the 69 referrals to Member States and the 16 cases classified as ‘other’.