

ANALYSIS OF AGREEMENT CONTAINING CONSENT ORDERS TO AID PUBLIC COMMENT

*In the Matter of Danaher Corporation and General Electric Company
File No. 191-0082*

INTRODUCTION

The Federal Trade Commission (“Commission”) has accepted, subject to final approval, an Agreement Containing Consent Orders (“Consent Agreement”) from Danaher Corporation (“Danaher”) designed to remedy the anticompetitive effects resulting from Danaher’s proposed acquisition of the GE Biopharma business of General Electric Company’s (“GE”) GE Healthcare Life Sciences division. Under the terms of the proposed Consent Agreement, Danaher is required to divest all of the rights and assets related to the following products to Sartorius AG (“Sartorius”): (1) microcarrier beads; (2) conventional low-pressure liquid chromatography (“LPLC”) columns; (3) conventional LPLC skids; (4) single-use LPLC skids; (5) three affected chromatography resins; (6) LPLC continuous chromatography systems; (7) single-use TFF systems; and (8) label-free molecular characterization instruments.

The proposed Consent Agreement has been placed on the public record for thirty days for receipt of comments by interested persons. Comments received during this period will become part of the public record. After thirty days, the Commission will review the comments received and decide whether it should withdraw, modify, or make the Consent Agreement final.

Under the terms of the Equity and Asset Purchase Agreement dated February 25, 2019, Danaher will acquire the GE Biopharma business in exchange for \$21.4 billion (the “Acquisition”). The Commission’s Complaint alleges that the proposed Acquisition, if consummated, would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in the markets for: (1) microcarrier beads; (2) conventional low-pressure liquid chromatography (“LPLC”) columns; (3) conventional LPLC skids; (4) single-use LPLC skids; (5) three affected chromatography resins; (6) LPLC continuous chromatography systems; (7) single-use TFF systems; and (8) label-free molecular characterization instruments. The proposed Consent Agreement will remedy the alleged violations by preserving the competition that otherwise would be lost in these markets as a result of the proposed Acquisition.

THE PARTIES

Headquartered in Washington, DC, Danaher is a leading global manufacturer of professional, medical, industrial, and commercial products and services through more than twenty operating companies. Danaher sells bioprocessing products primarily through its wholly owned subsidiary Pall Corporation (“Pall”), including instruments and consumables that support research, discovery, process development, and manufacturing workflows of biopharmaceutical drugs. Danaher sells other life science instruments, including molecular characterization used primarily in biopharmaceutical research applications, through its Molecular Devices, LLC operating company.

GE is a global conglomerate headquartered in Boston, Massachusetts. GE Biopharma is a division of GE Healthcare Life Sciences that manufactures and sells instruments, consumables, and software that support the research, discovery, process development, and manufacturing workflows of biopharmaceutical drugs.

PRODUCTS AND MARKET STRUCTURES

I. Microcarrier Beads

Microcarrier beads are used in cell culture bioprocessing. They provide a surface for the anchorage of dependent cells to attach and grow in cell culture vessels and bioreactors. Danaher and GE are the two leading global suppliers of microcarrier beads and are each other's closest competitors. The only other significant supplier of microcarrier beads is Corning, Inc., which is substantially smaller than GE, the dominant supplier. The market for microcarrier beads is highly concentrated. The parties have a combined market share of greater than 70 percent. The Acquisition would increase concentration in the microcarrier bead market substantially and reduce the number of major suppliers from three to two.

II. Conventional Low-Pressure Liquid Chromatography Columns

LPLC columns separate wanted from unwanted molecules by using a liquid or gaseous phase to carry the cell mass through an adsorbent serving as a stationary phase. Conventional LPLC columns are containers that hold chromatography resins used as the adsorbent during the stationary phase. These columns are made of glass, stainless steel, acrylic glass, or plastic. This market is highly concentrated, with only four main suppliers, including Danaher and GE. The parties have a combined market share of greater than 45 percent. Further, Danaher and GE are two of very few suppliers that offer larger, process-scale conventional LPLC columns, which is a segment of the market that is even more concentrated. Other remaining chromatography suppliers consist of fringe of firms, each of which account for a small share of the market.

III. Conventional Low-Pressure Liquid Chromatography Skids

Conventional LPLC skids control the flow of liquid in the chromatography process. Conventional LPLC skids contain a system of pumps, valves, sensors, tubing, electronic components, software, and flow paths composed of multi-use components. GE is the leading supplier of conventional LPLC skids with a market share of over 30 percent. Danaher and GE currently compete directly for sales in the market for conventional LPLC skids, and there are few other significant suppliers. The Acquisition would substantially increase concentration in the market for conventional LPLC skids.

IV. Single-Use Low Pressure Liquid Chromatography Skids

Single-use LPLC skids control the flow of liquid in the chromatography process and have the same function as conventional LPLC skids except that the flow path is composed of single-use components. As is the case for conventional ones, GE is the dominant supplier of single-use LPLC skids. According to market participants, in addition to GE and Danaher are two of only

three significant suppliers. The only other suppliers are fringe firms with few sales. Danaher and GE have a combined market share of greater than 80 percent for single-use LPLC skids.

V. Chromatography Resins

Chromatography resins are chemically treated consumables that constitute the stationary phase of the LPLC process. The parties both supply resins, although GE has a broad portfolio of resins while Danaher has more limited offerings. Each resin type differs in its chemical characteristics and features, and specific purification and production steps require different resins for the processing of particular molecules. Because of their distinct attributes and uses, each type of resin appears to constitute a distinct antitrust market. The parties have competitively significant overlaps in three resin markets: affinity resins, ion exchange resins, and mixed mode resins. Affinity resins use binding interactions between a ligand and its binding partner to capture the target molecule. Ion exchange resins separate molecules based on their total electric charge. Mixed mode resins use matrices functionalized with ligands capable of multiple interactions that make this type of resin useful to purify target proteins when other methods fail.

Danaher and GE are two of a limited number of competitors in the markets for affinity, ion exchange, and mixed mode resins. Similar to the markets for chromatography hardware, GE is dominant in chromatography resins, holding market shares of between 65 and 73 percent, 57 and 65 percent, and 56 and 64 percent in affinity, ion exchange, and mixed mode resins, respectively, while Danaher's market share is significant but no greater than ten percent in each resin market.

VI. Low-Pressure Liquid Chromatography Continuous Chromatography Systems

A LPLC continuous chromatography system consists of a skid and columns that functions by regulating the flow of resins through the affixed columns in a continuous process that, for some uses, provides greater efficiency and cost savings. The parties, however, appear to be the leading suppliers in the market. Currently, Danaher has approximately 28 percent market share and GE has approximately 14 percent share. Only three other suppliers compete in this market, and the combined firm would have a market share of over 40 percent.

VII. Single-Use Tangential Flow Filtration Systems

Single-use TFF systems control the filtration process, which removes unwanted molecules during the cell growth phase of the bioprocessing workflow by running liquids through porous membranes. Single-use TFF systems include sensors, valves, safety and security items, software, and network communication hardware, as well as flow kits, manifolds, and pumps composed of single-use components. Customers typically use TFF for cell clarification and for diafiltration, concentration, and microfiltration. TFF systems are configurable as conventional or single-use platforms. With single-use TFF systems, suppliers sell disposable flow kits (single-use tubing) that are used as a consumable. In contrast, conventional TFF systems are made with stainless steel and must be cleaned and validated after each use. Customers typically do not switch between single-use and conventional TFF systems, and they do not view other types of filtration systems as an economic or practical substitute for single-use

TFF systems. Danaher and GE are two important competitors in the market for single-use TFF systems. GE's system has gained share since recently entering the market and currently competes closely with Danaher's system. The parties have a combined share of the single-use TFF filtration systems market of more than 35 percent.

VIII. Label-Free Molecular Characterization Instruments

Label-free molecular characterization instruments characterize protein binding interaction and protein concentration based on measurement of the optical, calorimetric, electrical, acoustic, and other physical reactions to various stimuli. Researchers use these instruments for a number of applications, including drug discovery and other biological research. Label-free molecular characterization instruments are a distinct relevant product market within the broader universe of molecular characterization instruments. By their own estimates Danaher has approximately 23 percent share and GE has about 39 percent leaving the combined firm with share greater than 60 percent. The remainder of the market is highly fragmented and consists of less established instrument manufacturers and firms offering niche products.

COMPETITIVE EFFECTS OF THE ACQUISITION

The proposed Acquisition would likely result in substantial competitive harm to consumers in the markets for microcarrier beads; conventional LPLC columns; conventional LPLC skids; single-use LPLC skids; three chromatography resins; LPLC continuous chromatography systems; single-use TFF systems; and label-free molecular characterization. The parties are two of few significant suppliers of these products worldwide. Eliminating the head-to-head competition between Danaher and GE in these concentrated markets would allow the combined firm to exercise market power unilaterally, likely resulting in higher prices, reduced innovation, and less choice for consumers.

ENTRY CONDITIONS

De novo entry in the relevant markets would not be timely, likely, or sufficient in magnitude, character, and scope to deter or counteract the anticompetitive effects of the proposed Acquisition. Entry into each of the relevant product markets requires a significant amount of time and resources. In each relevant market, a new entrant would need to develop products with high levels of performance and reliability to establish the brand recognition necessary to compete effectively due to the premium customers place on suppliers' track records and reputations for reliable, high-quality products. Attaining requisite technological expertise and intellectual property often prevents suppliers from developing new products in the relevant markets. These barriers can delay the launch of new products and prevent existing suppliers of other equipment from developing new projects. Moreover, a potential entrant must establish a sufficient sales force that offers high-quality technical support and is capable of establishing relationships with customers. Such development efforts are difficult, time-consuming, and expensive, and often fail to result in a competitive product reaching the market.

THE CONSENT AGREEMENT

The Consent Agreement eliminates the competitive concerns raised by the proposed Acquisition by requiring Danaher to divest its microcarrier beads; chromatography hardware including conventional LPLC chromatography columns, conventional LPLC chromatography skids, and single-use LPLC chromatography skids; three chromatography resins; LPLC continuous chromatography systems; single-use TFF filtration systems; and label-free molecular characterization instruments to Sartorius. Danaher must divest all assets and rights to research, develop, manufacture, market, and sell these products, including all related intellectual property and other confidential business information, manufacturing technology, existing inventory, and all related agreements to manufacture and distribute the products. Additionally, to ensure that the divestiture is successful and to maintain continuity of supply, the proposed Order requires Danaher to supply Sartorius with these products for a limited time while Sartorius establishes its own manufacturing capability. Further, the proposed Order requires Sartorius to seek the Commission's approval in the event that it seeks to sell certain divested assets or acquire certain assets that compete with the divested assets for a period of three years. The provisions of the Consent Agreement ensure that Sartorius becomes an independent, viable, and effective competitor to maintain the competition that currently exists.

Based in Göttingen, Germany, Sartorius is a leading provider of instruments, manufacturing systems, and associated consumables for the life sciences industry including bioprocessing equipment used for drug discovery, development, and commercialization. Sartorius's existing biopharma business includes products that are highly complementary to the divestiture assets. Sartorius has the expertise, worldwide sales infrastructure, and resources to restore the competition that otherwise would have been lost due to the proposed Acquisition.

Danaher must accomplish the divestitures no later than 45 days after consummating the proposed Acquisition or ten days after receiving all regulatory approvals necessary to consummate the divestiture. Until Danaher completes the divestiture, the proposed Order requires Danaher to hold separate the entire Pall operating company and the molecular characterization business, as well as to maintain the divested assets. Danaher is also required to submit compliance reports to staff and to the proposed monitor demonstrating compliance with these asset maintenance provisions.

If the Commission determines that Sartorius is not an acceptable acquirer, or that the manner of the divestitures is not acceptable, the proposed Order requires Danaher to unwind the sale of rights and assets to Sartorius and then divest the affected products to a Commission-approved acquirer within six months of the date the Order becomes final. To ensure compliance with the Order, the Commission has agreed to appoint a Monitor to ensure that Danaher complies with all of its obligations pursuant to the Consent Agreement and to keep the Commission informed about the status of the transfer of the product rights and assets to Sartorius. The proposed Order further allows the Commission to appoint a trustee in the event that Danaher fails to divest the products as required.

The purpose of this analysis is to facilitate public comment on the Consent Agreement, and it is not intended to constitute an official interpretation of the proposed Order or to modify its terms in any way.

