

Messer Griesheim

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EXECUTIVE SUMMARY

In April 2001, Allianz Capital Partners and Goldman Sachs acquired 66.2% of Messer Griesheim shares from pharmaceutical giant Hoechst, which later became Aventis. The remaining minority stake was owned by the Messer family. At €2.1 billion, the buyout represented the largest private equity deals closed in Germany and the largest industrial buyout in Europe at that time. As private equity was gaining ground in Europe and Germany, the Messer Griesheim transaction epitomized a deal where a family regained control of some of its traditional, industrial-based company's entities. An overall restructuring plan enabled the company to divest non-core entities and focus on its core activities. Despite reductions in employment, employee development remained a critical issue for management throughout the deal, as the team provided incentives to encourage key employees to stay with the core businesses. The deal also successfully navigated the delicate nature of specific corporate governance aspects of a private equity-backed family concern with global operations.

During the 1990s, Hoechst had allowed Messer Griesheim to make large investments, aimed towards expansion. By the late 1990s, industry consolidation and market conditions made it clear that these activities had been ill-conceived. In the light of a new corporate focus on life sciences activities, Hoechst initiated the early stages of a radical restructuring of the company's global operations, even prior to the Allianz Capital Partners and Goldman Sachs deal. Throughout the negotiations and after the deal was in place, management continued executing the pre-existing restructuring plan, divesting many of the company's local and far-flung businesses and streamlining the whole organization.

Private equity allowed the Messer family to restructure at a critical inflection point in its history, and offered post-investment management support enabling the Messer family to successfully address several structural issues threatening to undermine the company's future. With the exit of Allianz Capital Partners and Goldman Sachs, Messer Griesheim's German, UK and US businesses were sold to Air Liquide. The Messer family acquired the shares of Allianz Capital Partners and Goldman Sachs in the remaining

entities, enabling them to gain control over a good portion of its original businesses (see Exhibit 1 for a diagram of the deal over time). The buyout brought a healthy and prospering – albeit smaller – entity into being, and was the culmination of a multi-decade effort by the Messer family to use private equity to stabilize its various businesses.

THE INDUSTRIAL GASES MARKET: 2001

By the late 1990s, industrial gases companies' valuation maintained steady levels in the face of a general downturn across the chemicals sector. The industry had been consolidated into a few large players, each focused on improved returns on capital, relying on pricing increases and keeping capital investments down. Almost all of the top five reported capital spending decreases, as much as 10% in some instances, and across the industry capital spending was down 5–6% (from 20–21% down to 11–15%). Air Liquide's CEO recalled: "We have been rather cautious, and are limiting our projects to those with rapid value creation."¹ Industrial gases companies were forced to review their strategic options and to either try to safeguard their market position in regions by extending their business or limiting their activities in less profitable regions.

By 1999, the global industrial gases sector had undergone consolidation, and Europe had seen an active year on the M&A front. Big deals had been undertaken, primarily motivated by capital intensity and pressure on margins: Air Liquide's and Air Products' combined takeover attempt of BOC had failed on anti-trust grounds, while competitor Linde had completed the successful takeover of AGA in August. Linde paid a total of €3.5 billion for AGA's equity in a combination of a private transaction and public tender offer.² With AGA's €800 million net debt, this brought the total value of the deal to €4.3 billion, and made Linde the fourth largest player globally and second in Europe (see Exhibit 2 for 1999 market size and market share of major producers).

Valuations at the end of the 1990s reflected the industry's high barriers to entry and the healthy margins attained once an industrial gas business of any size was established. As analysts reported, the public market valuation differed

¹ Cited in David Hunter, Natasha Alperowicz, "Industrial gases riding high, despite recession", *Chemical Week*, 23, vol. 164, no. 7, 20 February 2002.

² "Case Study: Messer Griesheim LBO", Goldman Sachs, *Vallendar*, 27 April 2007.

substantially from private market valuations, “with M&A transactions commanding significant premiums”.³ Private companies were willing to pay a premium for small regional companies; given the sector’s distribution challenges, smaller entities could be of great value. (See Exhibit 3 for comparable M&A transactions in the industrial gases industry.)

In 2001, the global market for industrial gases represented \$34.5 billion (€38.3).⁴ The top five players – Linde, Air Liquide, Air Products, BOC and Praxair – accounted for over 50% of the overall market.⁵ Growing at 4–5%, the industry had applications in heavy manufacturing, health care, metal production and fabrication, chemicals and refining and food and beverage markets. Products manufactured included basic industrial gases used in bulk, such as nitrogen, oxygen and hydrogen, as well as the speciality gases – air gases (atmospheric gases) and synthetic (or processed) gases – used in smaller volumes.⁶ Oxygen and nitrogen are the key industrial gases; oxygen makes up 20.5% of air by volume and nitrogen 78.09%.

Gases are transported in three ways: in liquid form over roads or rail by tanks, compressed in heavy cylinders, or by pipeline. Transportation over any great distance is not economical – 200–300 kilometers is considered as the maximum distance for deliveries. Over 40% of industry volume was delivered by gas cylinders, making it primarily a local business. Merchant (or bulk) customers stored gases delivered by tanker truck or rail onsite in vacuum-insulated containers; this represented about 25% of the market. For large industrial customers, supplied via the “tonnage method”, an air separation unit (ASU) was installed onsite but was operated by the industrial gas company, or supplies were piped directly to the customer by the gas company’s off-site ASU. Tonnage business accounted for about 23% of gases supplied. Non-cryogenic processed gases accounted for the remaining 12%, with membrane or absorption plants installed directly at customer locations. Varying contract terms – especially length of contract – applied to the different distribution methods; tonnage contracts for example ran 10 to 20 years, with clauses passing raw material cost changes on to the customer. Merchant or bulk customers tended to have three to five year contracts and the gas cylinder business was primarily short term, with either on-the-spot purchases or contracts for less than one year.⁷ These distribution challenges made the industry regional and fragmented.

The industry was also highly capital intensive, with a new ASU calling for as much as €50 million in investment. These two factors levelled the playing field somewhat for established players – small and large alike – while creating high barriers to entry. “Small players have as much chance as the giants in grasping big opportunities,” one commentator noted.⁸ Gas companies typically projected 1.5–2 times GDP growth for volume growth; from 1991–1999, however, adjusted for inflation, currency shifts and acquisitions, real sales growth was closer to 2%.⁹ According to one analyst, historically many European chemical companies invested in projects that were unable to generate their cost of capital, and despite high operating margins, were unable to earn their cost of capital.¹⁰ Capex spending had risen steadily to meet a perceived or expected rise in demand¹¹ with many industrial gas companies building larger ASUs than required to satisfy customer contracts, in the hopes of achieving economies of scale, and with an eye to covering perceived future demands in the merchant business. Growth was expected to come from new applications for industrial gases, along with an increased marketing of free capacity in the bulk business.

MESSER GRIESHEIM 1898–1994: HISTORY OF A FAMILY COMPANY

Adolf Messer founded Frankfurter Acetylen-Gas-Gesellschaft Messer & Cie in 1898, manufacturing acetylene generators and lighting fixtures in a workshop in Höchst, Germany.¹² Within a decade, the company had outgrown its small shop and moved into larger quarters in Frankfurt and by 1908 the company’s product range ran from oxyacetylene cutters, welding and cutting torches, acetylene generators and pressure regulators, to oxygen systems, including those used in oxy-fuel technology. Growth continued as the company built its first ASU plant in Madrid, Spain and opened its first international office in Oslo, Norway. International expansion continued with branches established in Essen and Nuremberg under Messer & Co. and Messer Company, Philadelphia in the US. After post-Second World War rebuilding, expansion continued with the establishment of holdings and cooperative partnerships in Europe and the US.

Innovation was a cornerstone of the company’s business. In 1924, it ran the first electric welding tests, and began manufacturing welding electrodes using the immersion process as early as 1930, and the fabrication of pressed material electrodes for arc welding in 1932. In 1953, the founder passed the reins over to his son, Dr. Hans Messer, with the company at 1,100 employees. The new CEO

³ According to analysts, the acquisition multiples were 10.5x EV/EBITDA and 21.3x EV/EBIT; median LTM EBITDA and EBIT multiples of 10.0x and 17.0x, respectively, showed that the market had been willing to bear “a substantial premium for attractive industrial gases assets”. “Case Study: Messer Griesheim LBO”, Goldman Sachs, *Vallendar*, 27 April 2007.

⁴ “Industrial gases—riding high despite recession”, *Chemical Week International*, 20 February 2002.

⁵ Prashant Juvekar, “Praxair”, *Equity Research*, SalomonSmithBarney, 17 December 2001.

⁶ Prashant Juvekar, “Praxair”, *Equity Research*, SalomonSmithBarney, 17 December 2001.

⁷ “Case Study: Messer Griesheim LBO”, Goldman Sachs, *Vallendar*, 27 April 2007.

⁸ “Face value: Private equity and family fortunes”, *The Economist*, 10 July 2004.

⁹ As reported in “Case Study: Messer Griesheim LBO”, Goldman Sachs, *Vallendar*, 27 April 2007. The report suggests that “either the volume side has not grown as strongly as widely expected, or inflation has eroded roughly 50% of the growth (price erosion)”.

¹⁰ “Face value: Private equity and family fortunes”, *The Economist*, 10 July 2004.

¹¹ “Case Study: Messer Griesheim LBO”, Goldman Sachs, *Vallendar*, 27 April 2007.

¹² Refer to Jörg Lesczenski, “100 Prozent Messer. Die Rückkehr des Familienunternehmens”, München/Zürich 2007, for further information on the history of Messer Griesheim.

realized it was not possible to grow the company organically. Messer had specialized in building plants to produce gases, but he wanted to expand into production of gases. To this end, he searched for a strong partner, and entered into discussions with BASF, a global chemicals company, which proposed a 50–50 share split, with each party getting 50% voting rights. While negotiations were underway, chemicals and pharmaceutical giant Hoechst came into the picture; a Frankfurt-based company with operations in over 100 countries, Hoechst was known for its strong R&D, and highly diverse portfolio. By 1965, Messer merged with Hoechst's Knapsack-Griesheim, forming Messer Griesheim as a two-thirds subsidiary of Hoechst concentrated in three areas: welding technology, cryogenics and industrial gases.

As part of the deal, the Hoechst team had to take on some of the proposed BASF acquisition deal structure. Notably, the Messer family expected to retain the same voting rights they would have received in the BASF acquisition, even though their share of equity – only one-third of shares in the Hoechst deal – was lower than what had been envisioned with BASF. This set the stage for ongoing Messer family-Hoechst negotiations, essentially giving the Messer family an important veto right on any subsequent sale of the Hoechst shares.

The 1970s saw continued growth as the company established more branches in Western Europe, including France, Great Britain and Spain, and North America. With borders opening in Eastern Europe by the end of the 1980s, newly established associated companies leveraged investment and sales opportunities and the company passed DM2 billion (equivalent to €1 billion), with annual net profits of DM133 million (equivalent to nearly €68 million).¹³

Up until the mid 1990s, the Messer Griesheim enterprise was considered one of the pearls of Hoechst's diversified portfolio. Relations between Messer Griesheim and Hoechst management were for the most part very good, and collaborations worked without any problems. Messer Griesheim investments were financed by its ongoing cash flow, making the company generally relatively independent from Hoechst. But as conditions shifted across Hoechst, Messer Griesheim's glow began to fade.

MESSER GRIESHEIM 1994–2001: PART OF A SHIFTING HOECHST PORTFOLIO

In 1994, former Hoechst CFO Jürgen Dormann took over as CEO, and shifted Hoechst's strategy to focus on its core activities with the ultimate aim of turning the company into a "pure" life-sciences company. Hoechst's low-profit basic- and speciality-chemical divisions were sold off as was its cosmetics unit, leaving Hoechst focused on agricultural and

pharmaceutical products. As one report noted, Dormann, or "Mr. Shareholder Value" as he was known, lived up to his name – Hoechst shares more than doubled in value between 1994 and the end of 1998.¹⁴

Dormann's strategy was to keep only the entities in which Hoechst was able to hold a lead or second market position. At that time, Messer Griesheim did not hold a lead market position in many of its activities, and Dormann's eventual aim was to sell Hoechst's shares in the firm. However, Messer Griesheim's management felt their parent company did not have a full appreciation for the regional nuances of their business. "The criteria used by Dormann to assess lead position could not be readily applied to our market. Industrial gases are a very regional business, it is more important to take into account the leadership within a region rather than on a national or even global scale," a member of the current management team recalled.

With the decision taken to divest its Messer Griesheim shares, Hoechst worked to grow Messer Griesheim's business to make it more attractive to potential buyers. Herbert Rudolf, member of the management board and post-1993 CEO, followed an aggressive expansion strategy, supported by Dormann, acquiring existing companies and building new ASU plants, and establishing a stronger presence in Latin America, Africa, Asia and Eastern Europe.

With the death of H. Messer in 1997, the next generation Messer – son Stefan Messer – was appointed to the management board in January 1998. That year, Messer Griesheim had 24 new plants under construction, and had negotiated new contracts to build 20 cryogenic and 65 non-cryogenic plants.¹⁵ And in 1999, Messer Griesheim announced plans to build a 3,000-tons-per-day plant for Thyssen/Krupp, requiring an investment of €50 million.¹⁶ Rudolf had the support of the Hoechst management and Board (AR) and was able to act independently from Hoechst. "We wanted to make the pig more beautiful before we found a buyer," an insider noted. Hoechst believed it would be easier to find a buyer with a larger business with a greater number of global entities. In December 1999, Hoechst merged with Rhône-Poulenc to form Aventis, the world's sixth-largest pharmaceutical group, with Dormann becoming CEO.

The Messer Griesheim expansion came at a cost. According to one source, Messer Griesheim spent €2 billion between 1995 and 2000 on capital investments, "a whopping 25%–30% of its sales," while operating margins and returns on capital lagged behind industry averages.¹⁷ Even the employee section of the Board voiced concerns over the investments under Rudolf. "It was problematic that Messer

¹³ The Euro estimates are based on the €–DM exchange rate of €1=DM1.95583.

¹⁴ Richard Tomlinson, "CEOs Under Fire. Mission Impossible? Jürgen Dormann's Job: To Save ABB From Itself", *Fortune*, 5 November 2002, http://www.cata.ca/files/PDF/Resource_Centres/hightech/elearning/Fortune_com.pdf, accessed 15 October 2007.

¹⁵ "Case Study: Messer Griesheim LBO," Goldman Sachs, *Vallendar*, 27 April 2007.

¹⁶ "Case Study: Messer Griesheim LBO," Goldman Sachs, *Vallendar*, 27 April 2007.

¹⁷ According to Deutsche Bank analysts, cited in Natasha Alperowicz, "Messer does an about-turn: New ownership focuses on debt reduction", *Chemical Week*, 27 February 2002, http://goliath.ecnext.com/coms2/summary_0199-1480758_ITM, accessed 2 November 2007. Capex for 1998–99 was 30% of sales according to Goldman Sachs.

Griesheim was not controlled more intensively,” one observer noted. “Some investments were based on overly optimistic or even false investment analysis and planning. But this only came to light three years after the investments had been made.” Another source characterized this period: “Messer [Griesheim] competed very aggressively to take share in the onsite market, offering low-priced, long-term contracts, with low and sometimes no take-or-pay threshold clause, and occasionally below the cost of capital.”¹⁸ All in all, Messer Griesheim’s leverage increased from €423 million in debt in 1996 to €1.6 billion in 2000 (see Exhibit 4 for Messer Griesheim’s key financials). Along with the Messer family’s involvement, and anti-trust issues for any merger of equals, the company’s leverage and performance left Hoechst in a very difficult position in terms of exit options.

EXIT OPTIONS FOR HOECHST (AVENTIS)

As Hoechst (Aventis) continued to focus on retrenching as a pure life-sciences company and divested its agricultural and chemical concerns, the company reviewed various exit options for Messer Griesheim, including Rudolf’s desire to take the company public in 1998, or a merger of equals with Swedish industrial gas concern AGA. Discussions with AGA were underway in 1998–1999, without the participation of the Messer family. Management then asked the Messer family to sign confidentiality agreements, although they had not been involved in the discussions. AGA was not alerted to the family’s special voting rights, nor of their veto rights. The deal fell apart with the family boycotting negotiations; “It soon became clear that it would not be possible to stage an exit without the agreement of the Messer family,” one insider recalled. “They clearly wanted to keep their stake and role in the company.” “Based on the company’s history,” another analyst noted, “it was very likely that the family would want to uphold its entrepreneurial influence in the future.”¹⁹ Background information on the family’s motivation can be found in the company chronicle written by Jörg Lesczenski.²⁰

The family proposed a merger with Linde and initiated discussions with Linde’s management. They agreed in theory to keep only 10% of the shares, but to retain their special voting rights. While Messer Griesheim had initiated the discussions, Hoechst management acquiesced to the discussions and the subsequent due diligence, although one insider recalled that Hoechst delayed the process and was hesitant to agree to a deal. The two sides held fundamentally different views: Hoechst sought the highest price they could get for the Messer Griesheim shares, and the Messer family was committed to keeping their special rights.

However, due to the summer 1999 merger of Linde and AGA, the Messer Griesheim deal made less sense; the newly merged company was large and another merger would have brought on anti-trust issues. Yet, some felt the anti-trust

issues were not insurmountable; Linde-AGA could have sold certain entities in question to another player, Air Liquide for example, subsequent to the merger. “It was largely due to Hoechst’s behaviour prior to the Linde-AGA deal that a merger between Messer Griesheim and Linde was not closed,” a Messer family member said. “We would have been happy with the deal with Linde.” Agreeing on an exit strategy became increasingly difficult.

A NEW CEO: THE CONSOLIDATOR

On 1 January 2000, Hoechst CFO Dr. Klaus-Jürgen Schmieder replaced Rudolf as CEO; some noted that Schmieder had gained the reputation of “consolidator” within Hoechst, and most analysts expected him to take the same approach at Messer Griesheim. Hoechst – now Aventis – publicly stated its intentions to sell its Messer Griesheim stake within the year. Along with the Linde discussions, negotiations with the US firm Praxair had also been underway, but had not been promising. Both anti-trust issues and the family’s desire to retain its leadership position in the company’s management brought these negotiations to a quick end. In March 2000, Aventis announced that it would divest its Messer Griesheim stake via a limited auction including financial advisors. Schmieder had already developed restructuring plans, working with strategy consultants Roland Berger who put together a plan that included the divestiture of several non-core Messer Griesheim businesses and a restructuring plan for the core activities, which among other things, called for a reduction of 850 employees. As one insider noted, “They needed to undergo serious restructuring in order to regain financial flexibility.”

THE CARLYLE GROUP’S MEC DEAL: A DRY RUN?

An earlier restructuring effort in Messer Griesheim involved the divestment of Messer Griesheim’s electric arc welding, filler material and cutting business in Europe. In December 1999, Messer Cutting & Welding had been disposed of by Messer Griesheim to the Messer family. In 2000, Messer Cutting & Welding acquired Swiss Castolin Eutectic under the umbrella of a new company, MEC Holding. To achieve this, the Messer family partnered with the Carlyle Group’s Carlyle Europe Partners (I) fund; the Carlyle Group contributed cash for its shares of MEC Holding (51%). The Messer family contributed Messer Cutting & Welding to the entity and thereby held 49% of MEC Holding. The Carlyle Group negotiated the ability to take over the CEO position, and to change the operational business directly, should it feel the need. This deal was for the most part a side show to the Allianz Capital Partners/Goldman Sachs deal. However, it was the family’s first experience with private equity investors, providing elements of a dry run for the second private equity financing of Messer Griesheim. Some of the contractual arrangements of the Allianz Capital Partners/Goldman Sachs deal were structured similarly to the Carlyle deal.

¹⁸ According to an HSBC report, cited in Natasha Alperowicz, “Messer does an about-turn: New ownership focuses on debt reduction”, *Chemical Week*, 27 February 2002, http://goliath.ecnext.com/coms2/summary_0199-1480758_ITM, accessed 2 November 2007.

¹⁹ “Case Study: Messer Griesheim LBO,” Goldman Sachs, *Vallendar*, 27 April 2007.

²⁰ Jörg Lesczenski, “100 Prozent Messer. Die Rückkehr des Familienunternehmens”, München/Zürich 2007.

THE DEAL WITH ALLIANZ CAPITAL PARTNERS/ GOLDMAN SACHS: 2001

In 2001, Messer Griesheim was in a difficult situation, being highly leveraged and in need of additional funding just to keep things running; everyone involved knew the company was in need of external equity financing. The complexity of any potential deal was obvious from early on, due to the family's involvement, the company's weak market position and high leverage. After aggressive expansion between 1995 and 2000, and late entry into several key markets where competitors had already cherry-picked desirable holdings, the company held several questionable investments around the globe and financials that painted a poor picture. Margins were low compared to market averages and they generated negative free cash flow (see Exhibit 4 for key financials). "Their investments were often based on overly optimistic assumptions," one observer noted, "which led to decreasing margins over time. Most of these investments were unprofitable." Yet some of these holdings had strategic value to competitors, who sought to expand their own presence in certain regions, making them a prime takeover target.

S. Messer brought in Dr. Stephan Eilers, partner of Freshfields Bruckhaus Deringer, who suggested entering into negotiations with private equity investors. Again, conflict arose between Hoechst (Aventis) and the Messer family. Hoechst proposed a beauty contest with a range of private equity investors, but the Messer family refused to have an auction. Hoechst suggested selecting a number of potential investors; they ended up holding talks with Allianz Capital Partners and Goldman Sachs, among several.

ALLIANZ CAPITAL PARTNERS AND GOLDMAN SACHS

Allianz Capital Partners was a wholly-owned subsidiary of the Allianz Group, a leading global insurance, banking and asset management company. Started in 1998, Allianz Capital Partners was among the leading companies in the European direct private equity market.²¹ Goldman Sachs Capital Partners, active in Europe since 1993, was the venerable Wall Street firm's private equity funds business.

Allianz Capital Partners did not have a traditional private equity fund, but instead received long-term capital directly from Allianz, and were considered an interesting partner due to their long investment horizon; they brought Goldman Sachs in very early in the negotiations. With the two partners involved, a compromise between Hoechst and Messer Griesheim was reached: the family had a partner who was aware of their long-term vision to keep control of the company; Messer Griesheim had guidance in its restructuring efforts (see Exhibit 5). Both sides found the private equity partners could provide professional support in the restructuring process. "We had to build up a trusting relationship," one Goldman Sachs team member recalled. "And we knew a deal would not be realized without the entire family's consent. This was very difficult at the beginning. Even the most senior member of the family – former Messer Griesheim CEO H. Messer's wife – insisted on meeting key investors in person."

PUTTING THE DEAL TOGETHER

From the outset, parts of the deal were informed by the Messer family's clear goal of keeping the firm in their hands after the private equity investors' exit. This prompted the investors to request the call option as well as the guarantee of voting rights.

The Call Option The call option enabled the family to buy back the Goldman Sachs and Allianz Capital Partners shares after three years; one participant noted, "even though this was an easy formula, the underlying calculations ended up being complex as they were not agreed upon beforehand."

Voting Rights The negotiations for the by-laws which entailed the special voting rights and the veto right took much longer than the negotiations for the basic formula of the call option. Prior to the buyout, the family had 50% of the voting rights; after, the investors would gain majority control with their voting rights representing their share of ownership of 66.2%. However, the family also had an additional right to veto key strategic decisions. A strategic restructuring plan that was closely based on Schmieder's original work with Roland Berger was agreed upon with the stipulation that every change of strategy required the consent of the three parties – the family, Allianz Capital Partners and Goldman Sachs. Additionally, the family held an existing change-of-control right, where in case of change of control, the Messer family had the right to buy back the Allianz Capital Partners/Goldman Sachs shares at an attractive price.

POST BUYOUT: CORPORATE GOVERNANCE

The deal negotiated a way for the Messer family to retain some control by requiring family consent for key strategic decisions. Messer Griesheim was governed by a two-tier system: a management board and a supervisory board, or "Aufsichtsrat" (AR). In addition, a sub-committee to the supervisory board, a shareholder committee, or "Gesellschafterausschuss" was formed.

S. Messer, Schmieder, Jürgen Schöttler and Peter Stocks had been members of the management board prior to the deal and continued post buyout. In contrast, both the supervisory board and the shareholder committee were impacted by the deal's negotiations. The supervisory board itself was comprised of a shareholder section and an employee section, with equal representation. The shareholder group was divided equally between the family and Goldman Sachs, each with three representatives. The Messer family selected Dr. Jürgen Heraeus, Wilhelm von Storm and Dr. Gerhard Rüschen, while Goldman Sachs chose Dr. Alexander Dibelius, Udo Stark and Stephen Trevor. In addition, six employee representatives were members of the supervisory board.

The shareholder committee included only representatives of the family and representatives of Goldman Sachs with no employee representation. Those representatives who were members of the supervisory board for the family and Goldman

²¹ http://www.allianz.com/en/allianz_group/about_us/index1.html, accessed 2 October 2007.

Sachs were also members of the shareholder committee. In addition, the Messer family appointed Eilers and Goldman Sachs selected Wesley Clark to be representatives on the shareholder committee. Due to legal issues, Allianz Capital Partners did not have a representative on the supervisory board or the shareholder committee.

Goldman Sachs appointed its representatives to the supervisory board and the shareholder committee without any input from the Messer family. Similarly, there were no discussions between the investors and the Messer family over who should represent the family on the supervisory board or the shareholder committee. The members of the supervisory board and the shareholder committee did not change throughout the entirety of the deal.

S. Messer selected Heraeus because he also ran a major family business with global operations; he became chairman of the supervisory board. Von Storm, who had been with Messer Griesheim for over 40 years, was selected because he knew the company and the Eastern European business very well. Rüschen had close ties with the family. Eilers had been involved in the deal from the start, recommending Allianz Capital Partners and Goldman Sachs early on to Messer Griesheim management; he became the lead lawyer for the transaction; S. Messer noted that “having a lawyer by my side when closing the deal, but also in the phase just after, was extremely helpful”.

The AR played a critical role in maintaining cohesion between management and employees. Fritz Klingelhöfer, one of the employee representatives, became co-chairman of the supervisory board. He and other employee members of the AR had warned management about the risks involved in some of the late 1990 investments; predicting it would not be possible to turn those investments into successful businesses. The employee section of the Board was made up of long-term Messer Griesheim employees and remained constant through the deal, with employee and union representatives in equal share. A member of Messer Griesheim’s management recalled: “These representatives were carefully selected, with industry knowledge and experience, who understood the business model and everyday business problems. They did not have extreme, unrealistic views they wanted to push through.” Union representatives were present in AR meetings, and were also available for additional discussions with employee representatives.

The shareholder committee focused on high-level strategic decisions and did not have much influence on operational issues. Operational issues were discussed in monthly meetings, which usually lasted a full day, and included members of the AR/shareholder committee along with additional representatives from the private equity investors, as well as directors and finance/accounting managers from Messer Griesheim’s side. These meetings decided the details on the restructuring and divestiture plan. And while in these meetings Messer Griesheim opened its books to show the

status of the undertakings, and the details of the financial plans were monitored closely throughout, the Goldman Sachs and Allianz Capital Partners representatives did not intervene directly in any operational decisions. “They mainly requested information rather than influencing the operations,” one team member said. Conflicts sometimes arose between Messer Griesheim and the private equity investors, as S. Messer saw value potential in some of the entities that were later divested; but as one observer noted “these were minor conflicts”.

Dibelius, co-chairman of Goldman Sachs Germany at the time, brought Wesley Clark in as compliance director. In 1999, the company had faced an instance of fraud and compliance problems in South America where a manager, originally hired by Hoechst and sent to South America by Dormann to build up Messer Griesheim’s business there, had embezzled several million dollars. Clark institutionalized strict rules of compliance, and initiated many reports that were circulated throughout the employee community, leading to a change in corporate culture. Compliance quickly became regarded as an important company policy and employees were educated on the ethics and morale values of the company.

POST BUYOUT: MESSER GRIESHEIM EMPLOYEES

Well before the private equity investors began negotiations, the employees were aware that the business was in trouble. As early as 2000, Schmieder had been open with the company’s employees about Messer Griesheim’s difficult situation, and employees were integrated into the early restructuring process. “Schmieder made it clear that restructuring and divestitures would be required in order to sustain the business,” one Messer Griesheim employee recalled.

Employee development had been a key initiative since 2000, with a new strategy in place for managing different levels of management across the company’s global operations and different tools introduced to improve the development of management and employees. Across the board, the main goal was to enhance the company’s personnel development at all levels across all regions. A key programme aimed to improve upper management succession and included developing a database which tracked positions as they were likely to come open and matched the most appropriate successors to the open positions. When Goldman Sachs and Allianz Capital Partners came into the picture, they did not change these programmes, however, they were intrigued by them and requested detailed information on the status. “Their interest and attention gave the programme an additional emphasis to the importance of improving management quality,” one manager recalled. “Our programme was always targeted towards this goal, but the private equity investor’s requirements and their focus on the data helped push the programme forward.”

According to management, employees felt the deal with Goldman Sachs and Allianz Capital Partners was a logical step towards improving Messer Griesheim’s situation, yet their day-to-day work lives remained stable. Throughout

the deal, the private equity investors had little to no contact with the employees and nothing actually changed in their everyday operations; the private equity investors were only visible to the management team and directors of certain divisions. The only contact the private equity investor team had with employees was through a company-wide symposium, held in 2002, sponsored by Messer Griesheim management. This covered a broad range of topics touching on the future of Messer Griesheim, including the exit of the private equity investors.

Overall, continuity with Messer Griesheim employees was the order of the day post-buyout. No contracts were changed from full to part time, no contract terms were changed, pension obligations remained unchanged, and the quality of people employed by region remained constant. Resources for employee development were expanded and, via the AR, employees were informed of the buyout decision as well as subsequent strategic decisions. Employees had the opportunity to participate in share options schemes (see below). Messer Griesheim employees found their environment remained stable and were for the most part satisfied.

Employee reductions

Roland Berger's restructuring plans had always called for employment reductions in order to restructure the company's core activities, but these were also inevitable as part of divesting non-core entities. The divestitures, excepting two, were sold to strategic buyers; the team sought out entities with a pre-existing presence in the market. "None of these businesses would have survived on a stand-alone basis," one team member noted. It was presumed that the strategic buyers would employ a majority of each divestiture's existing staff. From December 2000 to December 2003, the restructuring process was in full swing. Messer Griesheim's full-time equivalent headcount decreased by 11.2% from 10,200 to 7,144 in that time (see Exhibit 6). Of the 3,056 employee reductions, about 80% were through divestitures, according to Goldman Sachs, and did not represent job loss, as most of these employees were later taken on by the entities' strategic buyers. This is mirrored in the increasing number of employees in certain regions at other major producers in the same period (see Exhibit 7 for employment data across competitors).

The original restructuring plan for the core activities proposed a reduction of 850 employees and the goal to realize €100 million in savings mainly on employee costs. Most felt a reduction in employment was necessary, regardless of any buyout. Roland Berger had originally gone through every department of every entity and analysed the saving potentials. "These savings were followed," a team member said, "but in a less aggressive way. The number of actual reductions was less than what was originally suggested."

Goldman Sachs and Allianz Capital Partners felt headcount was an important indicator and in their regular updates they required detailed information on full-time equivalent

headcount. Employee costs were often considered a variable that could be easily reduced. "In reality it was not so simple," an observer noted. It took a long time before Messer Griesheim was able to substantially reduce their employees in their core businesses; this required discussions with their employee representatives (Betriebsrat). "The reductions were taken very seriously, and the Betriebsrat understood the necessity of the initiatives," another team member said. Messer Griesheim's HR group involved each department's management in all reduction decisions, explaining why certain reductions were required.

According to Goldman Sachs, about 350 employees, mostly located in Germany, lost their contracts due to restructuring efforts in their core entities. A portion of these layoffs was due to the outsourcing of Messer Griesheim's German haulage operations, which was seen as a necessary step prior to the sale to Air Liquide, and affected about 100 employees. All of them received offers from another German haulage company, but the contract offered carried conditions that, while standard for the haulage industry, differed from their prior Messer Griesheim contract. Given the nature of the industry, employees could not easily be shifted to a lower cost structure, such as moving employees across borders. "The industrial gases business is regional," one insider said, "and employees need to be where operations were located." As revenue per employee and EBITDA per employee data show, the company was able to divest its less successful entities, increasing employee productivity substantially; EBITDA per employee increased dramatically, up 16.9% (see Exhibit 6).

Employee incentives

By German standards at that time, the deal introduced an innovative employee incentive programme. An exit bonus was put in place in parallel to the Allianz Capital Partners/Goldman Sachs deal and was offered to the first and second management level of each department. Managers were able to buy shares in the holding company, using their own money, and would receive shares at the same price as Allianz Capital Partners/Goldman Sachs. The minimum amount for participation, however, was one-third of the manager's annual salary, and it was clear Allianz Capital Partners/Goldman Sachs expected certain managers to take part in the programme; this exerted some pressure on Messer Griesheim's management. As the holding period of the private equity investors was uncertain, the programme was a longer-term incentive for employees to stay with Messer Griesheim.

Despite the programme's favourable aspects, employees were sceptical. While the internet boom had familiarized some with stock option schemes, there were still very few programmes of this kind in Germany, leading to a natural distrust amongst employees of Messer Griesheim's German and European operations. The programme had much higher acceptance in the US where such programmes were more commonplace; more employees took part, and invested on average a higher amount compared to Messer Griesheim's other regions. Employees knew the company was highly

leveraged and in a difficult situation. Further, one-third of an employee's annual income was a huge investment for most managers – many were afraid to risk such a large sum. Messer Griesheim's top management spent a great deal of time in one-on-one meetings with the managers to explain the programme, and that its level of risk was in fact less than imagined given the participation of the private equity investors. In the end, about 85%–90% of Messer Griesheim managers participated, some investing a great deal of their money. One manager invested €1 million.

EXIT: EMPOWERMENT OF THE FAMILY

The exit agreement stipulated a window for a Messer Griesheim IPO for which agreement from all parties was required up until 30 June 2003. Between 1 April 2003 and 30 September 2003, the Messer family could exercise its call option and buy back the Allianz Capital Partners/Goldman Sachs shares. As of 1 January 2004, the investors then had the right to pursue an IPO or sell their shares to the highest bidder. A "drag along" right existed that would also have forced the family to sell their shares to the same bidder.

It became clear that strategic buyers were willing to pay strategic premiums, and, therefore, an IPO was unlikely to offer the same value potential as a trade sale. In the second half of 2003, the pressure on the Messer family to exercise their call option increased and initial talks with potential buyers were initiated. The Messer family was not able to buy back the whole entity and, therefore, aimed at gaining control at least over parts of the business. At first they hoped to keep at least half of the German operations and additional parts of the business from Allianz Capital Partners and Goldman Sachs while selling the rest of the company to a strategic buyer. Germany was the home country and seen as the heart of the company. S. Messer had proposed Air Liquide as a possible buyer; the investors had considered a public auction. However, as Goldman Sachs initiated the auction for half of the Messer Griesheim German concerns and additional businesses in the UK and the US, incoming bids were too low. Goldman Sachs advised that as the core business the German concerns were the most attractive part for any buyer, and the team realized they had to sell the German operations in their entirety. A second auction, including the entire German business, was set up; again only a few bids came in. In March 2004, with an additional €100 million added to their offer, Air Liquide acquired Messer Griesheim's German activities, as well as its US and UK concerns, for €2.7 billion. The other parts of Messer Griesheim were bought back by the Messer family. Most felt Air Liquide did not overpay; the sales multiple was comparable to other deals. Some felt a higher price might have been gained for the entire company, but this might have raised anti-trust issues.

The final exit was in May 2004. Messer Griesheim's German, UK and US operations were sold to Air Liquide. The Messer family bought back the remaining interests in Western

Europe, Eastern Europe, China and Peru. The deal was closed after the end of the call window, however, as the investors were able to see the company's positive development and a successful exit seemed on the horizon; they therefore decided to extend the call period. S. Messer was installed as CEO, and subsidiaries in Germany, UK and the US were sold to Air Liquide. A holding company was set up, trading under the name Messer Group, encompassing all remaining subsidiaries in Europe, China and Peru (see Exhibit 8). Schmieder joined the management board of Air Liquide after the exit of Allianz Capital Partners/Goldman Sachs and S. Messer took over the position as CEO in the newly founded Messer Group.

Coming full circle, in 2005, the Messer family purchased the outstanding MEC Holding shares held by the Carlyle Group, acquiring all the shares in the company's welding and cutting division; in 2006, both businesses of the Messer Group passed the €1 billion sales mark and looked to expand activities in Europe and Asia.

Postscript: The Messer Griesheim deal – a loss leader for investors?

The Messer Griesheim deal represents a unique case where the break-up of a company was not motivated by investors, but rather was initiated by the family who saw the opportunity to regain control over attractive parts of the business, albeit not the favoured German operations. For the investors, the strategy did not maximize their return; a higher return could probably have been realized by selling the company in its entirety to the highest bidder. By allowing the Messer family to partly buy back their company, the investors gave away further return potential, since a strategic buyer might have paid a higher price.

There were two rationales behind this: the Air Liquide deal was highly profitable, so the investors were able to achieve a high return on that side of the deal (8x EBITDA exit multiple); and it enhanced the relationship of trust between the family and investors. Goldman Sachs/Allianz Capital Partners provided the company with the required equity financing to buy out Hoechst and they developed and maintained a good relationship with the family; Goldman Sachs/Allianz Capital Partners enhanced this trust by helping the family regain power over parts of Messer Griesheim businesses. Rather than emphasizing the effort to maximize returns, the regain of control over various parts of the Messer family's businesses enhanced the good reputation of both Goldman Sachs and Allianz Capital Partners in the market – particularly as the Air Liquide deal was already providing a high return. As a commentator in *The Economist* noted, "Goldman Sachs and Allianz Capital [Partners] would love it to be known, from this example, that although they might have made more money if they had found an industrial buyer [for the whole entity], they can be fairly godmothers to family firms who might be wary of using private equity."²²

²² "Face value. Private equity and family fortunes". *The Economist*, 10 July 2004.

Exhibit 1: The Messer Griesheim deal

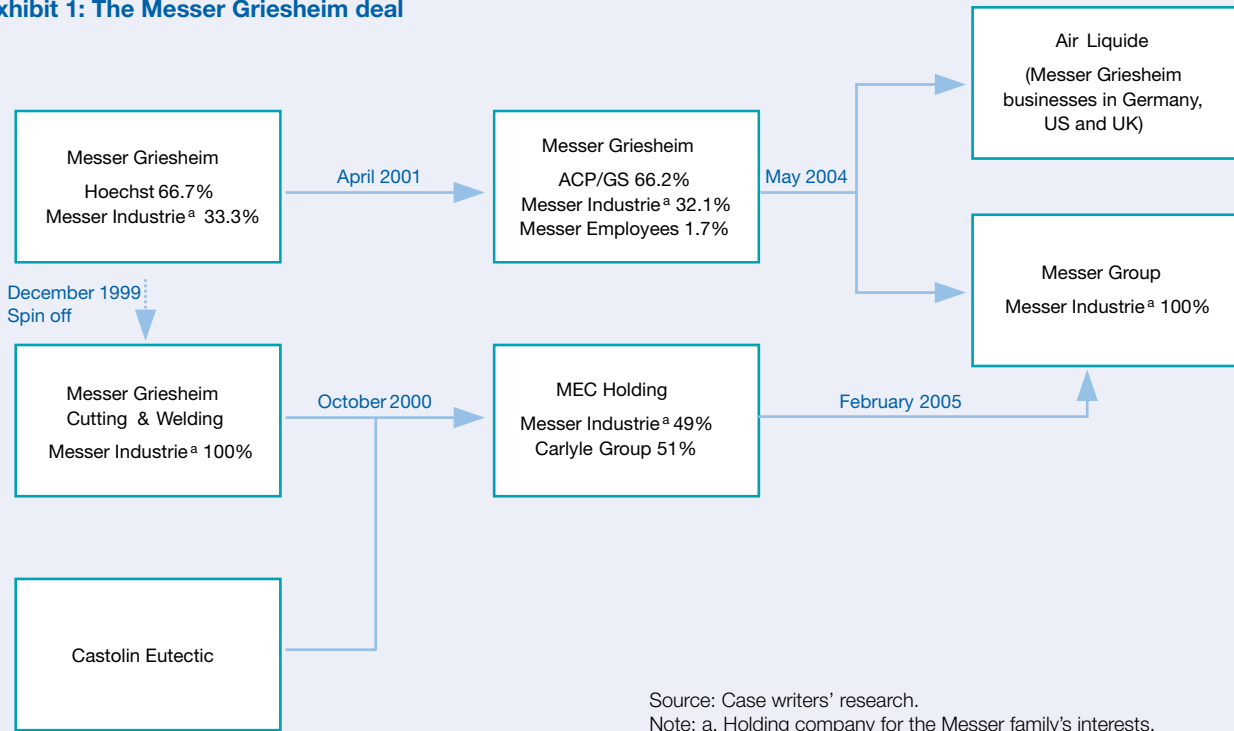
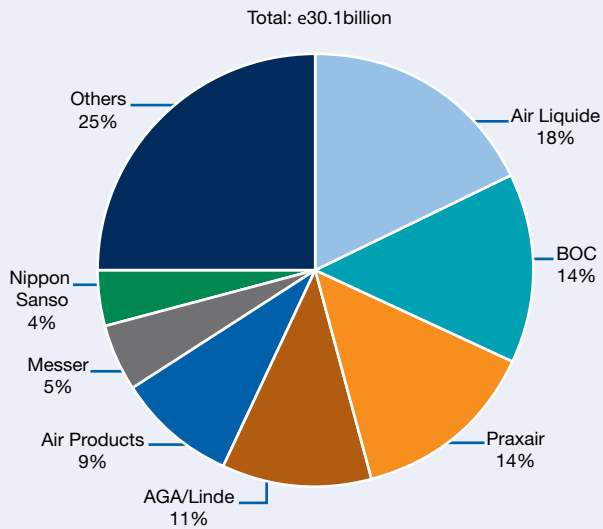


Exhibit 2: Market size and market shares of major producers (1999)



Source: "Case Study: Messer Griesheim LBO", Goldman Sachs, Vallendar, 27 April 2007.

Exhibit 3: Comparison of comparable M&A transactions in the industrial gases industry (1993–2000)

Target	Date	Acquirer	Enterprise Value (in US \$m)	Levered LTM Multiple of			Comments
				Sales	EBITDA	EBIT	
Europe							
WA Hoek's Machine	Mar-00	Linde	206	1.99x	9.4x	16.4x	Cash transaction to raise stake from 65% to 100%
AGA	Aug-99	Linde	4,500	2.49x	10.5x	21.3x	Cash tender offer for remaining 86%
BOC [failed]	Jul-99	Air Products+Air Liquide	14,060	2.39x	11.4x	17.6x	Withdrawn cash tender offer
BOC (Benelux and Ger operations)	Jan-99	Air Liquide	186	2.49x	NA	19.4x	Cash acquisition of a 100% stake
Calor Group Plc	Jan-97	SHV Holding Co Ltd	383	2.19x	16.1x	32.8x	Cash tender offer for remaining 48.4%
Carburros Metalicos	Oct-96	Air Products	587	2.20x	9.2x	13.7x	Cash transaction to raise stake from 26% to 97%
Soudure Autogene Française	Dec-94	Air Liquide	81	0.57x	NA	NA	Cash transaction to raise stake from 52% to 97%
Argon	Jul-93	Praxair Iberica	43	0.60x	NA	3.3x	Cash tender offer to raise stake from 48% to 98%
			Mean	1.87x	11.3x	17.8x	
			Median	2.20x	10.5x	17.6x	
North America							
Gas Tech	Sep-97	Praxair	58	1.35x	NA	NA	Cash transaction to raise stake from 43% to 98%
Praxair (Separation Plants)	Nov-96	AGA	200	3.33x	NA	NA	Acquisition of 5 ASUs
CBI	Mar-96	Praxair	2,149	1.10x	7.6x	12.7x	Combined cash/stock tender offer for remaining 99%
			Mean	1.93x	7.6x	12.7x	
			Median	1.35x	7.6x	12.7x	
			Overall Max	3.33x	16.1x	32.8x	
			Overall Mean	1.88x	10.7x	17.2x	
			Overall Median	2.19x	10.0x	17.0x	
			Overall Min	0.57x	7.6x	3.3x	

Source: "Case Study: Messer Griesheim LBO", Goldman Sachs, Vallendar, 27 April 2007.

Note: Debt assumed to be included in the consideration when the target was a division, plant or a subsidiary where no balance sheet data was available.

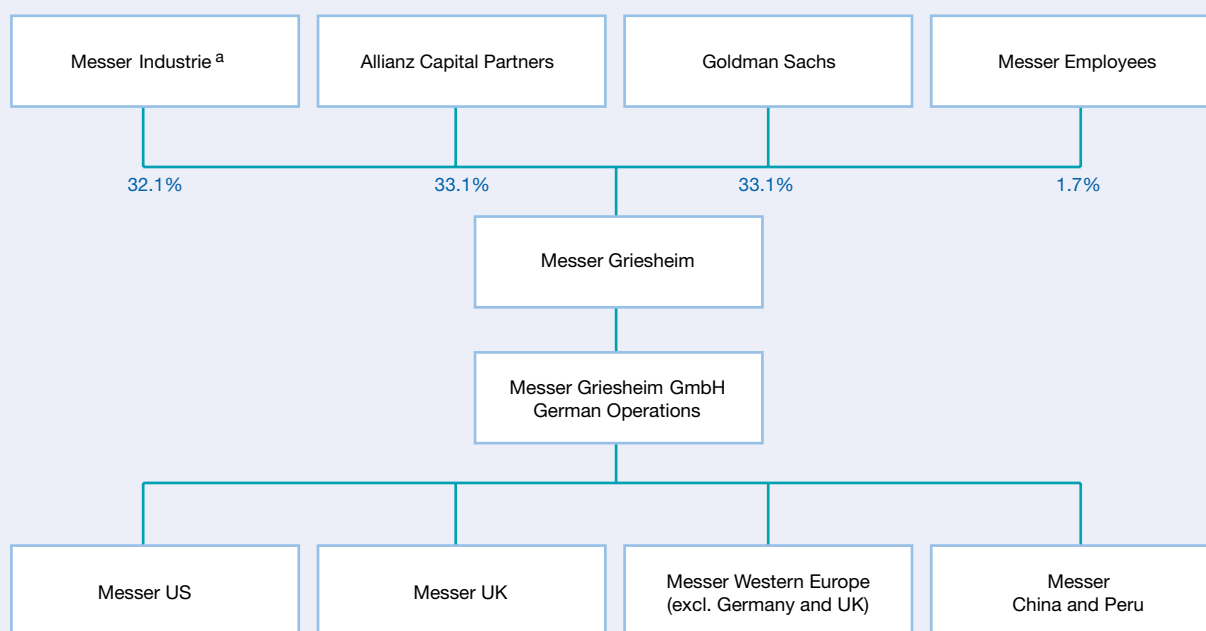
Exhibit 4: Messer Griesheim key financials (1996–2003)

In € Million

Key Financials	1996	1997	1998	1999	2000	2001	2002	2003	CAGR	CAGR
									1996 to 1999	2000 to 2003
Revenues	1,148	1,269	1,477	1,492	1,696	1,621	1,526	1,498	9.1%	(4.1%)
% Growth		10.5%	16.4%	1.0%	13.7%	(4.4%)	(5.9%)	(1.8%)		
EBITDA	287	307	336	308	359	371	403	402	2.4%	3.8%
% of Sales	25.0%	24.2%	22.7%	20.6%	21.2%	22.9%	26.4%	26.8%	(6.2%)	8.2%
Capex	299	425	561	557	322	129	136	127	23.0%	(26.7%)
% of Sales	26.0%	33.5%	38.0%	37.3%	19.0%	8.0%	8.9%	8.5%	12.8%	(23.6%)
Net Debt	423	689	1,007	1,356	1,627	1,393	1,240	1,117	47.4%	(11.8%)

Source: "Case Study: Messer Griesheim LBO", Goldman Sachs, Vallendar, 27 April 2007, Goldman Sachs, PF Headcount Analysis, "Messer Griesheim", 9 July 2007, p. 11.

Exhibit 5: Post buyout structure



Source: Goldman Sachs.

Note: a. Holding company for the Messer family's interests.

Exhibit 6: Messer Griesheim headcount analysis and employee productivity (Dec 2000–Dec 2003)

Number of employees	Dec-00	Dec-01	Dec-02	Dec-03	Total Change	CAGR
						Dec-00 to Dec-03
Germany	2,600	2,244	2,208	2,134	(466)	(6.4%)
North America	1,400	1,163	996	1,093	(307)	(7.9%)
Western Europe (excluding Germany)	1,100	1,017	997	916	(184)	(5.9%)
Eastern Europe	2,600	2,369	2,283	2,130	(470)	(6.4%)
Asia, Africa and Latin America	2,500	1,555	741	871	(1,629)	(29.6%)
Total Employees	10,200	8,348	7,225	7,144	(3,056)	(11.2%)
Employee Productivity (in € thousands)						
Revenue per employee	166	194	211	210		8.0%
EBITDA per employee	35	44	56	56		16.9%
Capex per employee	32	15	19	18		(17.4%)

Source: Goldman Sachs, PF Headcount Analysis, "Messer Griesheim", 9 July 2007, pp. 13-14, case writers' research.

Notes:

2001: During the eight month period ended 31 December 2001, pursuant to the divestiture programme, Messer Griesheim completed disposals of their home care business in Germany, their health care business in Canada, and their non-cryogenic plant production operations in Germany, the US, Italy and China. Messer Griesheim have also completed disposals of their operations in Argentina, Brazil, Mexico, South Africa and South Korea, their nitric oxide business in Germany, and their carbon dioxide business in the US. Messer Griesheim have entered into agreements to sell their operations in Trinidad and Tobago.

2002: Disposals of Messer Griesheim's home care business in Germany, health care business in Canada and non-cryogenic plant production operations in Germany, the US, Italy and China. Messer Griesheim have also completed disposals of their operations in Argentina, Brazil, Canada, Egypt, Mexico, South Africa, South Korea, Trinidad and Tobago and Venezuela, their nitric oxide business in Austria, substantially all their carbon dioxide business in the US and their nitrogen services business in the UK. As at 31 December 2002, other than the joint ventures in Central America and China and Messer Griesheim's subsidiaries in Indonesia and Peru, they had completed the divestitures targeted to be completed by year end 2002. In January 2003, Messer Griesheim sold their operations in Indonesia to PT Tira Austenite Tbk.

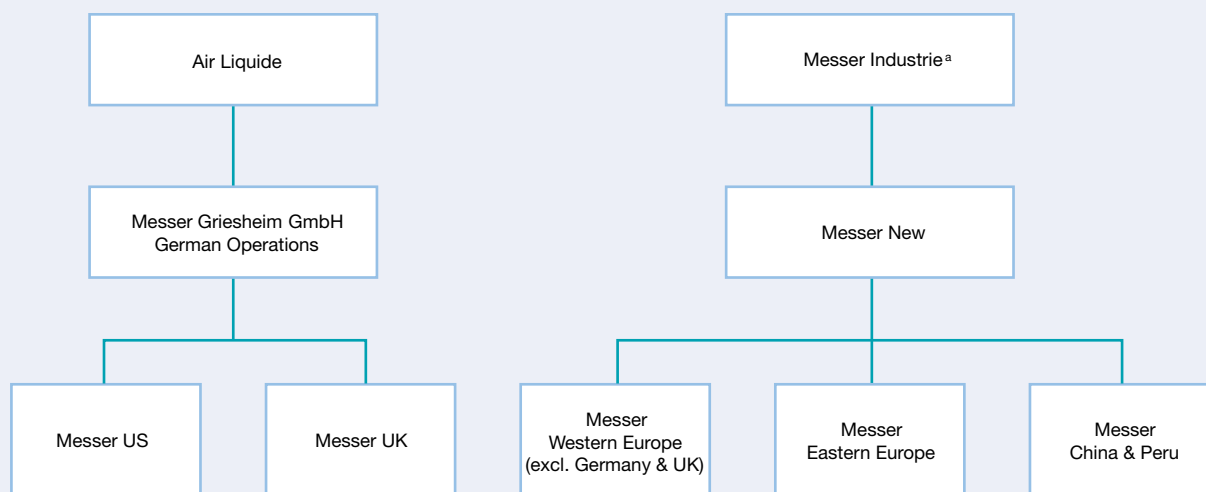
2003: Pursuant to Messer Griesheim's divestiture programme, as at 31 December 2003, they had completed disposals of their home care business in Germany, their health care business in Canada, and their non-cryogenic plant production operations in Germany, the US, Italy and China. Messer Griesheim had also completed disposals of their operations in Argentina, Brazil, Canada, Egypt, Mexico, South Africa, South Korea, Trinidad and Tobago, Venezuela, Indonesia, Malaysia and Central America, their nitric oxide business in Austria, substantially all their carbon dioxide business in the US and their nitrogen services business in the UK.

Exhibit 7: Comparison of employment at major producers (2000–2003)

Number of employees	2000	2001	2002	2003	Total Change	CAGR 2000 to 2003
Linde						
Germany	18,475	18,380	18,154	17,807	(668)	(1.2%)
Europe (excl. Germany)	20,436	19,693	19,637	19,921	(515)	(0.8%)
North/South America	6,371	6,256	6,340	6,292	(79)	(0.4%)
Asia	1,409	1,577	1,885	2,139	730	14.9%
Australia/Africa	435	494	505	503	68	5.0%
Total Employees	47,126	46,400	46,521	46,662	(464)	(0.3%)
Thereof Gas	18,661	17,689	17,500	17,420	(1,241)	(2.3%)
Air Liquide						
France	9,393	9,856	9,856	10,208	815	2.8%
Europe (excl. France)	8,787	8,932	8,932	8,932	145	0.5%
Americas	8,181	8,008	7,392	7,337	(844)	(3.6%)
Asia Pacific	3,030	3,080	3,388	4,147	1,117	11.0%
Africa	909	924	1,232	1,276	367	12.0%
Total Employees	30,300	30,800	30,800	31,900	1,600	1.7%
BOC						
Europe	11,398	12,173	13,213	12,353	955	2.7%
Americas	6,969	7,305	7,243	7,451	482	2.3%
Africa	17,137	16,120	17,435	17,138	1	0.0%
Asia/Pacific	7,205	7,573	8,389	7,565	360	1.6%
Total Employees	42,709	43,171	46,280	44,507	1,798	1.4%
Praxair	23,430	24,271	25,010	25,438	2,008	2.8%
Airgas	8,000	N/A	>8500	N/A		

Source: Annual reports.

Exhibit 8: Structure post-exit of Allianz Capital Partners/Goldman Sachs



Source: Goldman Sachs.

Note: a. Holding company for the Messer family's interests.