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Dow's Bid for Rohm and Haas

> *The acquisition of Rohm and Haas is a defining step in our transformational strategy to shape the "Dow of Tomorrow"—a high-value, diversified chemical and materials company creating the largest specialty chemicals company in the United States with a leading global position in performance products and advanced materials.*
>
> Andrew Liveris, Dow Chemical CEO[1]

> *We strongly believe that by becoming part of Dow, we secure a brighter future and greater growth prospects for our employees . . . This was the right transaction, with the right company, and with a good friend, Andrew.*
>
> Raj Gupta, Rohm and Haas CEO[2]

The CEO of the Dow Chemical Company (Dow), Andrew Liveris, had been working for the past four years to transform Dow from a producer of low-value, highly cyclical commodity chemicals into a producer of high-value specialty chemicals and advanced materials. But as the U.S. subprime mortgage crisis evolved into a financial crisis and then into a global economic recession over the course of 2008, two key deals—the cornerstones of his transformation strategy—fell apart. First, Kuwait's Petrochemical Industries Company (PIC) terminated a proposed joint venture with Dow in December 2008, a deal that was supposed to generate $7 billion of cash. This cash, in turn, could have been used to finance Dow's second deal, the pending acquisition of specialty chemical maker Rohm and Haas (Rohm) for $18.8 billion. To make matters worse, Dow was about to report a fourth quarter loss of $1.6 billion, further reducing its cash flow and its options.

Given these events, Dow announced that it was refusing to close the Rohm acquisition on January 26, 2009. Within hours, Rohm sued Dow to force it to complete the acquisition as required by the merger agreement. Liveris now had to decide what to do about the Rohm acquisition and the lawsuit as well as the PIC joint venture and the company's growing operating losses.

Professor Benjamin C. Esty and Global Research Group Senior Researcher David Lane prepared this case. This case was developed from published sources. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management. We would like to thank Guhan Subramanian and Steven Davidoff for helpful conversations about the legal issues in this case, and Chris Allen and Kathleen Burke Ryan for assistance with collecting data and verifying sources.

The Dow Chemical Company

Dow was founded in 1897 by Herbert Dow as a manufacturer of commercial bleach. After merging with Midland Chemical in 1900, it branched out into agricultural and food products. A century later, Dow still maintained its headquarters in Midland, Michigan, and was the only Fortune 200 firm to have paid a dividend for 388 consecutive quarters (since 1912) without interruption or reduction. By 2008, Dow had 46,000 employees and was the world's largest producer of polyethylene and polystyrene resins (used, for example, to make plastic bags and Styrofoam, respectively).

Over the years, Dow had developed a reputation for product innovation, having created popular consumer products such as Saran plastic wrap and Ziploc resealable plastic bags. In 1997, however, Dow sold many of its consumer products to S. C. Johnson as part of a corporate reorganization that shifted Dow from a regional to a business unit structure. Dow also had a history of restructuring its portfolio of businesses. From 1983 to 2007, Dow divested 166 businesses. Over the same period, it made 95 acquisitions and took stakes in another 58 companies.[3] Dow's largest acquisition in recent years was the purchase of Union Carbide in February 2001 for $11.6 billion. When Dow announced the deal, its share price fell almost 5%. In response, an analyst at ING Barings commented, "If Dow was announcing they were going after a specialties company like Rohm and Haas, people would be standing up and applauding. Instead, they're saying 'What the hell is going on?'"[4]

Australian native Andrew Liveris joined Dow in 1976, and worked for many years in the company's Asian operations. He became chairman and CEO in November 2004 and joined Citigroup's board of directors the following year. Whereas his predecessor had focused on cutting costs, Liveris shifted the focus to growth and profitability. He announced the "Dow of Tomorrow" strategy at an investor conference in March 2006. This strategy consisted of two parts: pursuing an asset-light approach to its low-margin, but cash-rich, commodity businesses while at the same time building high-growth and high-value-added performance businesses. In essence, the objective was to generate higher growth, margins, and earnings, but with less cyclicality.

Dow earned $2.9 billion on revenues of $53.5 billion in 2007. It was rated A- by Standard & Poor's with a debt-to-total capitalization ratio of 33%. (**Exhibits 1** and **2** show Dow's income statement and balance sheet; **Exhibit 3** shows selected financial data for Dow over the past 14 years.)

Implementing Dow's Strategic Transformation

Over the next two years, Liveris worked to implement the new strategy. To achieve the first objective—becoming an asset-light producer of commodity chemicals—he signed a joint venture (JV) agreement with Petrochemical Industries Company, a subsidiary of Kuwait Petroleum Corporation (KPC). KPC was the state-owned holding company that controlled all of Kuwait's hydrocarbon interests. Dow had a long history of working with PIC, having signed three major JV agreements since the mid-1990s.[5] Continuing their long history of collaboration, Dow and PIC signed a memorandum of understanding (MOU) in December 2007, in which Dow agreed to sell a 50% stake in several basic chemicals plants for $9.5 billion—a deal that would generate $7.2 billion of cash after taxes.[6] The goal was to combine Dow's technology and its production facilities with Kuwait's low-cost feedstock (oil and gas were key inputs of petrochemical products) in a new joint venture known as K-Dow Chemicals. By selling its physical assets into the JV, Dow would cut its capital intensity.

At the same time, Liveris worked toward the second objective—becoming a high-value-added producer of specialty chemicals and advanced materials—by agreeing to purchase Rohm and Haas.

Headquartered in Philadelphia, Pennsylvania, Rohm and Haas had $9 billion in sales, $10 billion in assets, and almost 16,000 employees as of year-end 2007 (**Exhibits 1** and **2** show Rohm's income statement and balance sheet). Raj Gupta, who had been CEO since 1999, was implementing a strategy that involved expanding sales in overseas markets such as China, developing new specialty chemicals,[a] and cutting costs in the maturing North American market. Despite its strength in specialty chemicals and other advanced materials, Rohm had a diverse portfolio of businesses including Morton Salt, which it had acquired in 1999 for $4.6 billion.

The Haas family—45 people who collectively held 32% of Rohm's shares—precipitated the company's sale by telling Gupta in late 2007 that family members wanted to sell "substantially all" of their shares in the next 12 to 18 months.[7] Following the family's instructions, Gupta began exploring options and started acquisition discussions with three companies in June 2008. This process generated bids from both Dow and BASF, two of the world's largest chemical companies.[8] In addition to submitting an offer price, both companies submitted draft merger agreements for review. After a brief auction, in which both price and certainty of closing were evaluated, Dow's $78 per share offer prevailed over BASF's $75 bid.[9] Dow not only bid more, but also included additional provisions such as a ticking fee and obligations related to regulatory approval that were designed to ensure the deal would close; BASF's bid did not include a ticking fee. **Exhibit 4** provides a summary of key provisions in the Dow-Rohm merger agreement.

Dow announced the deal on July 10, 2008, indicating it would pay $15.3 billion in cash for Rohm's outstanding shares and would assume $3.5 billion of debt, for a total deal value of $18.8 billion. The $78 offer represented a premium of 74%, 60%, and 27% over Rohm's share price on the prior day, on its average price over the last month, and on its 12-month high. Moreover, it was approximately twice the average premium paid in recent years.[10] According to the plan, Rohm would become a Dow subsidiary, keep the Rohm and Haas name, retain its Philadelphia headquarters, and receive two board seats, but Gupta would retire. These post-closing commitments helped Dow's bid prevail.

Referring to Rohm as "beachfront property," Liveris described the deal this way: "This [company] is a jewel . . . There aren't many jewels out there, [but] this is one of them. The fact that it became available matched Dow's strategy perfectly."[11] Further elaborating, Liveris said:

> Rohm and Haas is a strong operational and strategic fit for Dow. This combination brings together best-in-class products and technologies, broad geographic reach, and strong industry channels to create an outstanding business portfolio with significant growth opportunities . . . (Rohm) will provide Dow with an expanded network into emerging markets, which will be another important source of revenues for the future . . . [and] brings us a strong and experienced leadership team with a culture of customer focus and innovation from whom we can learn a great deal.[12]

Turning from the strategic to the financial aspects of the deal, Dow's CFO, Geoffrey Merszei, exclaimed, "Well, this is clearly a great day for Dow and its shareholders. This transaction is another example of Dow's commitment to delivering long-term shareholder value by maintaining the highest standards in pursuing and selecting strategic growth opportunities."[13] The Rohm acquisition would change Dow's earnings profile by increasing the growth rate and reducing the cyclicality, thereby recasting Dow as an "earnings growth company." In terms of value creation, growth synergies (expanded product portfolios, innovative technologies, increased geographic reach, and improved

[a] The chemicals industry was generally divided in two broad categories: basic (or commodity) chemicals and specialty (or fine) chemicals. Whereas basic chemicals were critical inputs for industrial and consumer products, specialty chemicals were typically sold for specific applications such as adhesives, catalysts, and sealants.

market channels) were expected to generate $2.0 to $2.6 billion in additional present value.[14] According to Merszei, cost synergies would also generate significant value:

> We expect to achieve at least $800 million of (annual) cost synergies in key areas such as shared services and governance, purchasing synergies (including raw materials), manufacturing, supply chain, work process improvements, as well as corporate business development overlap. We expect the one-time cost of about $1.3 billion to achieve these cost synergies, which will be completely phased in within two years. We believe these are very realistic and achievable synergy estimates.[15]

As evidence of Dow's ability to achieve synergies, Merszei highlighted the company's acquisition and integration track record. Dow had consistently achieved annual cost synergies ranging from 14% to 18%, measured as a percentage of target firm revenues, in its major acquisitions: Union Carbide (18%), Angus Chemicals (15%), EniChem Polyurethanes (14%), and Gurit-Essex (16%).[16]

To finance the deal, Dow would issue $3 billion of 8.5% convertible preferred equity to Berkshire Hathaway and an additional $1 billion to Kuwait's sovereign wealth fund.[17] Liveris noted, "We are . . . thrilled with the investment by Berkshire Hathaway and the Kuwait Investment Authority, which we believe further underscores the merits of this transaction, our strategy and the great growth potential resulting from Dow's transformation."[18] In addition, Citigroup, Merrill Lynch, and Morgan Stanley were chosen to lead a 19-bank consortium that committed to provide a one-year, $13 billion bridge loan for the transaction.[19] Commenting on the financing, Liveris said:

> [W]e are not counting on [the K-Dow joint venture to close]. We can do this deal without the Kuwait money, and we will stay at investment grade . . . .We have been very thoughtful on our balance sheet here in retaining investment grade and doing all the things in our capital structure to create insurance in case there [are] any downturns out there . . . or bigger downturns than there are.[20]

Before the deal could close, the firms needed several approvals. Because both boards of directors (Dow and Rohm) had already approved the deal and because the Haas family had signed an agreement to support it, attention turned to gaining approval from government anti-trust regulators in both the U.S. and Europe, and from Rohm shareholders. In the proxy material sent to Rohm shareholders, Rohm management recommended they approve the deal, but warned:

> In considering the recommendation of the Rohm and Haas board of directors that you vote to approve and adopt the merger agreement, you should be aware that some of Rohm and Haas's executive officers and directors have interests in the merger that are different from, or in addition to, those of Rohm and Haas's stockholders generally.[21]

One reason the interests between executive officers and shareholders could differ was compensation. **Exhibit 5** describes the compensation Rohm insiders would receive as a result of the merger. According to papers filed by Dow, approximately 500 Rohm executives and managers would collectively receive $375 million for their stock and options.[22] Gupta alone would receive more than $100 million through a combination of stock, options, and other merger-related compensation. Rohm management also disclosed the fees it had agreed to pay the board's financial advisor. Goldman Sachs would receive $47 million for exploring options, advising the board, and providing a fairness opinion on the offer, with most of the fee contingent upon closing the deal.[23] As part of the valuation process, Goldman valued Rohm using historical trading analysis (bid premiums), multiples from comparable transactions, and discounted cash flow analysis.

On the day they announced the deal, Rohm's stock jumped 64% (from $44.83 to $73.62), Dow's stock price fell 4.2% (from $33.96 to $32.52), and BASF's American depository receipts (ADRs) were up 1.2% compared to the S&P 500 which was up 0.7% (see **Exhibit 6**). Equity analysts immediately questioned the magnitude of the acquisition premium. One analyst called it a "ridiculously pricey acquisition,"[24] though another analyst at Credit Suisse was less critical:

> We think the Rohm and Haas acquisition is a credible step forward for Dow, but at a price and on terms that leaves us with mixed feelings . . . Dow is getting a very good portfolio, but at a price that will make integration decisions absolutely critical to making the acquisition pay off. Cost synergies alone won't make this deal work . . . Dow will need to graft Rohm and Haas's innovation culture onto its own businesses . . . and to accelerate top-line growth.[25]

The analysts also questioned the financing plan and the need to borrow heavily to pay for an all-cash deal. "[If the high-leverage] scenario were to play out, we believe the dividend would likely be a goner, and so could Dow," said one analyst.[26] Liveris, however, was undeterred: "I've said it before, but I will say it again. We will not break that [dividend] string. Not Dow. Not on my watch."[27] Despite Liveris' assertions, however, S&P quickly put Dow on its "watch" list:

> The CreditWatch with negative implications on Dow indicates that we could lower the ratings on Dow following completion of the transaction . . . Based on the preliminary information announced today, Dow's financial profile will clearly move to an aggressive posture, but we expect it to be maintained at a level sufficient to support an investment grade rating. Key to resolving the CreditWatch and the determination of the prospective ratings will be a review of the components of the financing . . . and Dow's ability to successfully close the pending joint venture with PIC.[28]

In addition to the comments from equity and credit analysts, the announcement generated scrutiny from the legal community. In reviewing the deal, Steven Davidoff, a law professor and legal commentator for mergers and acquisitions at the *New York Times*, said,[b] "[I]t is a plain-vanilla strategy deal that provides for specific performance[c] under Delaware law . . . [but] it is a bit odd that Dow did not negotiate a more flexible structure in these days of uncertain financing."[29]

The Global Financial Crisis Hits

Shortly after the deal was announced, the global financial crisis hit with a vengeance. What began as a downturn in the U.S. housing market in 2006 (the subprime mortgage crisis) rapidly spread into the U.S. capital markets in the fall of 2008. The most dramatic day was Monday, September 15, when Lehman Brothers declared bankruptcy and Bank of America bought Merrill Lynch in a forced sale. The next day, the U.S. government injected $85 billion to save AIG. The S&P 500 index fell by almost 40% from the end of August through mid-November. As equity markets crashed and credit markets froze, financial institutions began to experience record losses and fail. The U.S. Treasury, the Federal Reserve Board, and the Federal Deposit Insurance Corporation had to inject $40 billion to keep Citigroup solvent.[30] Share prices for banks across the U.S. fell. In fact, the aggregate market

[b] Steven M. Davidoff, the "Deal Professor," was a legal commentator for *DealBook*, a financial news service produced by the *New York Times*. He was an attorney at Shearman & Sterling before teaching at the University of Connecticut School of Law.

[c] "Specific performance" is a legal remedy for breached contracts. It compels the defendant, the breaching party, to execute the contract (to perform) rather than to pay financial damages.

capitalization of the 19 banks providing Dow's bridge loan fell by more than 50% from July to December 2008.[31]

The chemicals industry was especially hard hit as the recession caused demand to fall sharply. In response, firms cut production, shut plants, and fired workers. Unable to meet its debt obligations, LyondellBasell, the third-largest chemicals company in the U.S., filed for Chapter 11 bankruptcy on January 6, 2009. Also in January, U.S.-based titanium dioxide producer Tronox filed for bankruptcy and foam products producer Foamex defaulted on an interest payment. By early February, Standard & Poor's had reduced the credit ratings to junk status for many chemical companies such as Chemtura (rated CCC), Ineos (rated CCC), and NOVA Chemicals (rated B+).[32]

As the crisis unfolded, Dow's share price plunged by more than 50% by year end (see **Exhibit 6**). Dow reported a fourth quarter loss of $1.6 billion (total net income for the year was $579 million), a year-on-year quarterly sales decline of 23%, and a dramatic reduction in the firm's operating rate (i.e., capacity utilization) from 87% in 2007 to 44% in December 2008, the lowest level in 25 years.[33] In response to its deteriorating financial condition, Dow announced a restructuring plan in early 2009, including the elimination of 5,000 jobs (11% of its workforce), the closure of 20 facilities, and the divestiture of several non-core businesses.[34] Dow also planned to idle 180 of its plants.[35] Rohm's performance was also declining as it eliminated 900 jobs and froze discretionary spending in early 2009.[36] Revised financial forecasts for Rohm showed a 20% decline in sales (see Exhibit 7a).

On November 28, 2008, approximately one month after Rohm shareholders approved the Dow acquisition, Dow and PIC signed the K-Dow joint venture agreement.[37] Before signing, however, they cut the total enterprise value from $19 billion to $17 billion.[38] Under the revised terms, Dow would receive $9 billion in pre-tax cash flow for its assets, $500 million less than originally planned.[39] Liveris acknowledged that the economic landscape had changed considerably:

> [W]hen we said we would close K-Dow by year end, no one anticipated the global meltdown that [occurred] in September and October. This deal has closed in an economic environment that none of us have seen in our lifetime. Given this meltdown, it was natural . . . to revisit the economics of the deal, and extract a win-win. I believe we have done that, as do our partners.[40]

Yet four weeks later, on December 28, 2008, PIC unilaterally terminated the contract, citing falling oil prices (from $147 to $41 per barrel) and turmoil in global financial markets.[41] According to the JV agreement, though there was room for different interpretations, PIC was liable for a break-up fee of up to $2.5 billion if the deal did not close within six months of signing.[42] The next day, Dow and Rohm shares fell 21% and 16%, respectively, and Standard & Poor's cut Dow's rating to BBB, slightly above junk status, stating:

> Without the proceeds from the K-Dow transaction, debt leverage will be even more aggressive than anticipated, and Dow will remain more dependent on its commodity petrochemical businesses during the impending downturn . . . [We are concerned] that Dow will likely fund the Rohm and Haas acquisition, at least initially, with substantially greater utilization under a one-year $13 billion committed bridge loan, thereby increasing refinancing risk at a difficult time in the credit markets.[43]

Given this sequence of events, Davidoff (the legal commentator at the *New York Times*) questioned whether the Rohm acquisition would proceed:

> As much as Dow might now regret the Rohm deal—especially in light of the collapse on Sunday of Dow's joint venture in Kuwait—governing law and forum for [this case] is Delaware, and it is highly likely that the court there would enforce the provisions . . . Dow has limited outs under its agreement with Rohm . . . [T]he only other out appears to be a material adverse change, or MAC, claim. Yet Rohm has negotiated a very tight MAC. The exclusions are not qualified by materiality, so any adverse effect to the specialty chemical industry or the economy or markets generally is excluded. Unless something really bad in particular happens to Rohm, and Rohm alone, Dow will have a hard time proving a MAC at this point.[44]

Developments in Early 2009

On January 8, the European Commission approved the Rohm acquisition, and on January 10, the "ticking fee" began. According to the merger agreement, Dow had to pay approximately $3 million more per day until the deal closed. Two weeks later, the U.S. Federal Trade Commission approved the acquisition. Having resolved the anti-trust issues and all other conditions required for closing, Dow now had two days to close the deal according to the merger agreement. Yet on January 26, one day before the deal was scheduled to close, Dow refused to close the deal:

> The Dow Chemical Company confirms it has informed Rohm and Haas that Dow will not close the proposed acquisition . . . Dow has determined that recent material developments have created unacceptable uncertainties on the funding and economics of the combined enterprise. This assessment is based on several macroeconomic factors such as the continued crisis in global financial and credit markets combined with the dramatic and stunning failure of Petrochemicals Industries Company of Kuwait (PIC) to fulfill its obligation to complete the formation of the K-Dow joint venture in late December 2008 . . . Dow remains interested in discussions to find a solution to complete the acquisition of Rohm and Haas, but recent events have made closing untenable at this time.[45]

Rohm immediately filed suit in the Delaware Chancery Court:

> This suit is brought by Rohm and Haas to force Dow to honor its obligations . . . to acquire Rohm and Haas for $78 in cash (plus a ticking fee) . . . Even though all conditions to Dow's obligation to close the Merger have now been satisfied, Dow has refused to close in an intentional breach of the parties' agreement. Rohm and Haas is entitled, therefore, to an order of specific performance directing Dow to proceed to consummate the Merger without delay.[46]

On February 3, Dow responded to the Rohm complaint:

> A confluence of dramatic and unforeseeable shocks—to Dow, to the chemical industry as a whole, and to the banks and financial markets—has made it impossible to consummate Dow's planned acquisition of Rohm and Haas at once without jeopardizing the very existence of both companies . . . [Dow's] acquisition of Rohm and Haas could lead to a downgrade of Dow's credit rating and, consequently, could result in the default on multiple billions of dollars of acquisition debt which in turn could cause cross-defaults on billions of dollars of other Dow debt, impair the company's ability to issue commercial paper, and set off a whole host of other unforeseeable consequences.[47]

Resolving the Disagreement: The Options

As of February 3, Dow had three options: close the deal at $78 per share, terminate the deal through litigation, or renegotiate specific terms. To close the deal at $78 per share in cash, Dow would need to raise cash, but it had few options in the existing economic climate. Finding permanent financing would be difficult given the limited liquidity in the capital markets and the firm's recent downgrade; cutting the dividend would end the firm's 97-year streak; and asset sales would likely be done at "fire sale" prices. Issuing equity similarly raised the prospect of selling into a depressed market, as Dow's stock had fallen to $11 per share. In fact, with Rohm trading at $54 per share in early February, Rohm had a larger market capitalization than Dow ($10.8 billion vs. $10.7 billion).

The most likely possibility was to use the existing bridge loan. Given its one-year term, Moody's warned that it would downgrade Dow to junk status if it used the bridge loan without "a very detailed refinancing plan that entails very little execution risk."[48] More importantly, at least in the short term, was whether Dow could comply with the bridge loan's covenants on cash flows and total leverage. **Exhibit 8** shows Dow's post-transaction leverage forecast; **Exhibit 9A** shows spreads on five-year credit default swaps for Dow and other major firms; **Exhibit 9B** shows CDS spreads for speculative grade chemical firms including LyondellBasell, Ineos, Chemtura, and Nova Chemical.

The second option was to terminate the deal given the financial crisis, the worsening recession, and the dramatic decline in both Dow's and Rohm's prospects. Under these circumstances, closing the deal would jeopardize two great firms. According to Dow's head of investor relations, "Dow feels there is an overarching obligation to act in the best interest of the combined entity."[49] Dow's response to Rohm's suit made the argument even more explicitly:

> [T]his case finds Rohm and Haas, presumably acting for its current shareholders and in total disregard of its other constituencies, asking for [consummation] . . . precisely when the uncertainty is greatest, when the combined companies would be most vulnerable, and when any newly created entity would be the most hobbled by leverage under current financial conditions and terms. That result can only serve the interests of one constituency of one side of the transaction—the old shareholders of Rohm and Haas. The result is directly contrary to the interests of Rohm and Haas as a business, of Dow, of the merged entities, of the tens of thousands of current Rohm and Haas and Dow employees, and of the associated communities, suppliers, and customers.[50]

Liveris described the situation this way on CNBC, the business television channel:

> Combining these two great companies at this moment in time would be an economic disaster for both companies. Dow is fine on a standalone basis. Rohm and Haas is fine on a standalone basis. We're just saying we can't do the deal right this minute to protect everyone concerned . . . It would be foolhardy in today's world to put these two companies together and create an economic disaster.[51]

In order to terminate the deal, however, Dow would have to prevail in court. The question was whether the judge would enforce the contract or nullify it in favor of some other legal remedy. Davidoff (the legal commentator at the *New York Times*) noted:

> Dow is clearly playing a game of chicken, with the threat of the largest chemical maker going bankrupt looming (or at least threatened). But the company's argument above has almost no chance in Delaware. Dow specifically agreed to a contract with no financing out and

> to the availability of specific performance. Even putting aside the policy reasons for upholding Dow's choice, its legal arguments don't have much weight.[52]

In another column, Davidoff openly wondered:

> [But then why] is Rohm trading at about $60 a share, a 23 percent discount to the takeover price, on a deal that should close within the next month? . . . [T]he fear is that Dow is going to create a litigation position. Perhaps Dow could argue that specific performance isn't appropriate here, since it is a cash deal. Specific performance under Delaware law is generally to be awarded only in the case that monetary damages are unavailable. Here, since it is a cash transaction, the damages are theoretically measurable in monetary terms.[53]

Dow's final and seemingly preferred option was to delay the closing and renegotiate the merger terms (e.g., price, consideration, closing date, etc.). A delay would also give Dow time to renegotiate the bridge loan (spread, maturity, and covenants), look for other sources of longer-term financing, and renegotiate the K-Dow joint venture. Dow might be able to extend the maturity of the bridge loan, but the cost would likely rise considerably. In an attempt to recover a break-up fee for the K-Dow deal, Dow had recently announced plans to sue Kuwaiti entities. Given their history of collaboration, Liveris cautioned, "[P]ursuing legal options is not an option we take lightly, especially because of the longstanding partnerships we've established in Kuwait over the past decade."[54]

Rohm's Options

For his part, Gupta had the option of litigating to close the deal at $78 per share or renegotiating key deal terms with Dow. The case for closure was strong: the merger agreement was tightly written and clear. Moreover, Dow had the ability to raise the necessary funds to close the deal even if the options were not particularly attractive. For example, by cutting the dividend to zero, Dow would have an extra $1.6 billion of cash per year. Another option would be to issue long-term debt, an option that seemed more feasible after firms issued a record $167 billion of high-rated corporate bonds in January 2009, despite the ongoing recession. Even junk-rated companies had been able to issue debt, albeit at a cost of 10% above Treasuries.[55] Finally, Dow could always issue equity or sell assets to raise cash.

The other option—renegotiating the deal—was possible, but raised several questions. First, which aspects of the deal—price, closing date, or consideration (stock vs. cash)—should be renegotiated? Second, this option raised a fundamental issue regarding Gupta's fiduciary duty to shareholders. Would agreeing to anything less than $78 per share, even if it facilitated the deal and the subsequent performance of the merged entity, imply a violation of his fiduciary duties to Rohm's shareholders?[56] In fact, hedge funds and merger arbitrageurs, including Paulson & Company, had acquired large positions in Rohm's shares in recent months (at prices in the $70s), betting the deal would close as scheduled.[57] And finally, there was a question of whether shareholders would approve a renegotiated deal.

The Delaware Court's Options

Chancery Court Judge William Chandler could rule several ways at a "fast-tracked" trial set to begin on March 9, 2009. One possibility was to enforce the "specific performance" clause in the merger agreement, thereby forcing Dow to consummate the merger. Some legal analysts believed this was the most likely outcome. For example, one said: "[The] Delaware Chancery Court prides itself on . . . providing . . . clarity and predictability in decisions. They are not the kind of judges or courts that would be moved by a particular factual situation to bend or change the law."[58]

But Dow had raised the possibility that it could not afford to close the deal under the original terms. If it did, Dow would violate its debt covenants almost immediately, creating an "economic disaster." If this were a realistic and likely outcome, the judge might nullify the merger agreement and award Rohm some kind of monetary damages such as out-of-pocket expenses or the expected share premium (i.e., the difference between the offer price and Rohm's pre-deal price) in lieu of the merger. Failure to enforce the merger agreement would, however, have major ramifications according to Davidoff:

> [W]hat Dow is asking for would have widespread implications and open the door for any acquirer to attempt to forgo its contractual obligations by arguing the equities, something that would create substantial uncertainty in the marketplace . . . [But] these are extraordinary times, so perhaps Chancellor Chandler can peg this as a confined unique case.[59]

One case that was relevant to the Dow-Rohm litigation was the failed acquisition of Huntsman Corporation by Hexion Specialty Chemicals. After agreeing to buy Huntsman for $10.6 billion in July 2008, Hexion tried to terminate the merger agreement when Huntsman reported weaker than expected earnings in the first quarter of 2008. At the time, Huntsman was trading at a 26% discount to the all-cash offer price of $28 per share (i.e., the arbitrage discount). Although Hexion claimed that Huntsman had experienced a "material adverse effect" (MAE) and that consummating the merger under would leave the combined entity insolvent,[60] Judge Lamb from the Delaware Chancery Court rejected the MAE claim, did not rule on the insolvency question, and asserted that Hexion had knowingly and intentionally breached its obligations by not using its "reasonable best efforts" to close the deal.[61] His September 2008 decision read:

> [A] corporate acquirer may be assumed to be purchasing the target as part of a long-term strategy. The important consideration therefore is whether there has been an adverse change in the target's business that is consequential to the company's long-term earnings power over a commercially reasonable period, which one would expect to be measured in years rather than months. A buyer faces a heavy burden when it attempts to invoke a material adverse effect clause in order to avoid its obligation to close. Many commentators have noted that Delaware courts have never found a material adverse effect to have occurred in the context of a merger agreement.[62]

Conclusion

Given an assessment of Gupta's options and the judge's likely interpretation of the law, Liveris faced a very difficult set of choices. Each of his options entailed considerable risk with relatively little upside, at least in the short term. Terminating or delaying the Rohm acquisition might help Dow survive the current economic recession, but it would, along with the termination of the K-Dow joint venture, severely limit—if not end—Dow's strategic transformation process. It would be particularly damaging if a competitor acquired Rohm in the meantime. On the other hand, consummating the Rohm acquisition would be an important step in the transformation process, but it would leave the merged entity in a very precarious financial position. If the deal was going to proceed, Liveris had to decide when to close the deal, how to finance it, and how hard to push PIC to recover the break-up fee from the K-Dow joint venture. A victory in court or in arbitration could easily turn out to be a Pyrrhic victory if it jeopardized the firm's long-standing ties to Kuwait's leaders, KPC, PIC, and the country's sovereign wealth fund.

Exhibit 1 Dow and Rohm, Income Statement Data, 2006-2008 H1 (as amended, in $ millions)

	Dow Chemical			Rohm and Haas	
	2006	**2007**	**2008 H1**	**2007**	**2008 H1**
Revenues	$49,124	$53,375	$31,140	$8,897	$5,074
Cost of Goods Sold	39,407	44,028	26,346	5,963	3,537
Depreciation & Amortization	2,074	2,190	1,143	469	247
Gross Profit	**7,643**	**7,157**	**3,651**	**2,465**	**1,290**
SG&A Expense	1,663	1,861	1,012	1,091	586
Research & Development	1,164	1,305	666	296	159
Amortization Expense	50	72	47	57	32
Operating Income	**4,766**	**3,919**	**1,926**	**1,021**	**513**
Net Interest Expense	425	445	247	120	85
Income/(Loss) from Affiliates	959	1,122	525	22	90
Other Non-operating Income	60	315	57	27	21
Restruct. & Unusual Charges	388	719	(10)	70	98
Profit Before Tax	**4,972**	**4,192**	**2,271**	**880**	**441**
Income Tax Expense	1,155	1,230	536	206	111
Minority Interest & Other	(93)	(75)	(32)	(13)	(11)
Net Income	**3,724**	**2,887**	**1,703**	**661**	**319**
Avg. Basic # Shares (millions)	962.3	953.1	936.0	207.8	193.7
Num. of Acquisition Shares (as of 9/25/08)					195.2
Earnings per Share (basic)	$3.87	$3.03	$1.82	$3.18	$1.65
Dividends Declared per Share	$1.50	$1.64	$0.84	$1.44	$0.78
Gross Margin	15.6%	13.4%	11.7%	27.7%	25.4%
Net Margin	7.6%	5.4%	5.5%	7.4%	6.3%
Effective Tax Rate	23.2%	29.3%	23.6%	23.4%	25.2%
R&D as % of Sales	2.4%	2.4%	2.1%	3.3%	3.1%
Capital Expenditures	$1,983	$2,105	$1,019	$417	$266

Source: Adapted from Capital IQ, accessed September 22, 2010.

Exhibit 2 Dow and Rohm, Balance Sheet Data, 2006–2008 H1 (as amended, in $ millions)

	Dow Chemical			Rohm and Haas	
	2006	**2007**	**2008 H1**	**2007**	**2008 H1**
Assets					
Cash & Investments	$2,910	$1,737	$2,113	$265	$204
Receivables	8,048	9,684	11,356	1,876	2,141
Inventories	6,058	6,885	7,690	1,024	1,091
Other	193	348	172	261	307
Total Current Assets	**17,209**	**18,654**	**21,331**	**3,426**	**3,743**
Net PP&E	13,722	14,388	14,624	2,871	2,923
Goodwill	3,242	3,572	3,617	1,668	1,737
Deferred Tax Assets	4,006	2,126	2,283	83	0
Other Long-term Assets	7,402	10,061	10,298	2,059	2,084
Total Assets	**45,581**	**48,801**	**52,153**	**10,107**	**10,487**
Liabilities					
Accounts Payable	5,674	6,536	7,837	806	908
Accrued Expenses	2,215	2,512	2,237	613	770
Short-term Debt	219	1,548	2,225	150	108
Current Long-term Debt	1,291	586	1,051	8	0
Other Current Liabilities	1,202	1,263	1,037	192	101
Total Current Liabilities	**10,601**	**12,445**	**14,387**	**1,769**	**1,887**
Long-term Debt	8,036	7,581	8,116	3,139	3,168
Minority Interest	1,365	1,414	1,237	215	239
Pension/Other Benefits	3,094	3,014	3,109	760	754
Other Liabilities	5,420	4,958	5,171	1,078	1,087
Total Equity	17,065	19,389	20,133	3,146	3,352
Total Liabilities & Equity	**45,581**	**48,801**	**52,153**	**10,107**	**10,487**
Total Debt	9,546	9,715	11,392	3,297	3,276
Debt-to-Total Capital	35.9%	33.4%	36.1%	51.2%	49.4%
Current Ratio (CA / CL)	1.62	1.50	1.48	1.94	1.98

Source: Adapted from Capital IQ, accessed September 22, 2010.

Exhibit 3 Dow Chemical Company, Selected Financial and Operating Information, 1994–2007 (as amended, in $ millions)

	Size and Operations			Profitability			Per Share Information			Leverage		
Year	Sales	Assets	Employees (000)	Gross Margin	Return on Sales	Return on Equity (ending)	Earnings Per Share (Basic)	Dividends Paid Per Share	Average Numb. of Shares	Debt-to-Total Capital	S&P Debt Rating	Debt Issued
2007	$53,375	$48,801	45.9	13.4%	5.4%	14.9%	$3.03	$1.59	953.1	33.4%	A -	$0
2006	$49,124	$45,581	42.6	15.6%	7.6%	21.8%	$3.87	$1.46	962.3	35.9%	A -	$0
2005	$46,307	$45,934	42.4	17.3%	9.8%	29.5%	$4.69	$1.34	976.8	41.1%	A -	$0
2004	$40,161	$45,885	43.2	14.7%	7.0%	22.8%	$2.98	$1.34	940.1	50.7%	A -	$614
2003	$32,632	$41,891	46.4	13.7%	5.3%	18.9%	$1.88	$1.34	918.8	58.8%	A -	$463
2002	$27,609	$39,562	50.0	13.9%	-1.2%	-4.4%	($0.37)	$1.34	910.5	63.1%	A	$1,992
2001	$28,075	$35,515	52.7	14.9%	-1.4%	-3.9%	($0.43)	$1.25	901.8	52.1%	A	$3,956
2000	$29,798	$35,991	53.3	17.4%	5.6%	14.1%	$1.88	$1.16	893.2	44.4%	A	$300
1999	$26,131	$33,456	51.0	21.8%	6.2%	14.8%	$1.85	$1.16	874.9	44.3%	A	$1,444
1998	$25,396	$31,121	50.7	23.0%	6.7%	17.3%	$1.92	$1.16	888.1	45.1%	A	$0
1997	$27,814	$31,004	55.9	24.6%	8.8%	24.6%	$2.71	$1.08	898.4	45.0%	A	$0
1996	$27,267	$31,219	52.0	26.7%	9.1%	24.7%	$2.61	$1.00	950.1	41.2%	A	$0
1995	$27,140	$29,838	51.0	31.1%	11.0%	31.7%	$2.91	$0.93	1,025.8	41.7%	A	$0
1994	$22,634	$31,573	65.7	24.7%	5.8%	13.5%	$1.22	$0.87	1,069.8	43.6%	A	$0

Sources: Adapted from Dow Chemical Company Form 10-K (year-end 2001, 2004, and 2007), Standard & Poor's Corporation, and Capital IQ, accessed October 4, 2010.

Exhibit 4 Summary of Key Contractual Terms in the Merger Agreement of 7/10/08

Provision	**Section and Contractual Clause** (with emphasis added by casewriter)
Agreement	**Item 1.01**: On July 10, 2008, Dow Chemical Company (**Dow**) entered into a merger agreement with Rohm and Haas Company (**Rohm**).
Financing	**Item 1.01:** Dow has equity commitment letters from Berkshire Hathaway and Kuwait Investment Authority for **$4.0 billion** of convertible preferred stock—both commitments are conditioned upon the closing of the merger. Dow has entered into a commitment letter with Citigroup, Merrill Lynch, and Morgan Stanley for a **$13.0 billion** loan on July 10, 2008.
Closing Date	**§1.2**: The second business day after the satisfaction or waiver of all antitrust concerns and of all other conditions of the merger.
Merger Consideration	**§2.1a**: Each Rohm share will receive cash in the amount of **$78.00**. Each option to purchase Rohm shares, whether vested or unvested, will become fully vested and receive the merger consideration less any applicable exercise price. On the closing date, all debts, liabilities, and duties of Rohm shall become the debts, liabilities, and duties of Dow.
Ticking Fee	**§2.1a**: In the event the merger does not close by **January 10, 2009**, the per share consideration shall increase . . . using 8% simple interest per annum until the deal closes.
Material Adverse Effect (MAE clause)	**§3.1**: A "**Material Adverse Effect**" means such state of facts, circumstances, event, or change that has had a material adverse effect on the business, operations or financial condition of <u>Rohm</u>, but shall not include: a) events or changes generally affecting the specialty chemical industry or generally affecting the economy or the financial, debt, credit or securities markets; b) any decline in Rohm's stock price or any failure to meet internal or published projections. [Note: The MAE clause is also known as a "Material Adverse Change" or **MAC** clause.]
Fairness Opinion	**§3.17**: Rohm's Board of Directors has received the opinion of Goldman, Sachs & Co. to the effect that the consideration is fair to the Rohm shareholders from a financial point of view.
No Solicitation	**§5.3**: Rohm . . . agrees . . . not to solicit, initiate, or knowingly encourage . . . any proposal or offer that constitutes . . . an alternative (merger) proposal. [Known as "**no talk**" or "**no shop**" clauses.]
Reasonable Best Efforts	**§5.6**: Each of the parties hereto shall use its **reasonable best efforts** to take all actions and to do or assist in doing all things necessary, proper, or advisable to consummate the merger.
"Hell or High Water" Provision	**§5.6b & e**: Dow shall take all such action as may be necessary to resolve objections, if any, from government authorities on antitrust grounds . . . so as to enable the closing to occur as soon as reasonably possible . . . including the sale, divestiture, or disposition of assets, businesses, products, or product lines . . . Nothing contained in this agreement requires Dow to take any divestiture action with respect to any of the assets if these assets represented in excess of $1.3 billion of revenue for the 12 months ending December 31, 2007.
Closing Conditions	**§6.1, 6.2**: Conditions to merger: 1) Approval by Rohm and Haas's shareholders. 2) Expiration of the waiting period under the Hart-Scott-Rodino Antitrust Act. 3) European Commission declares that the merger is compatible with the common market. 4) Rohm and Haas has not experienced a "**Material Adverse Effect**" as of the Closing Date. 5) Consummation of the merger is not conditioned on the receipt of financing by Dow.
Termination Fees	**§7.2a & d**: Rohm shall pay Dow **$600 million** in cash (**termination fee**) if it terminates this merger agreement and accepts a superior merger proposal. Dow shall pay Rohm **$750 million** (**reverse termination fee**) if it breaches the merger agreement or if there is a final and non-appealable injunction (for anti-trust or other reasons) prohibiting consummation of the Merger.
Governing Law	**§8.4**: This agreement shall be governed by the laws of the state of Delaware.
Enforcement and Jurisdiction	**§8.5**: The parties agree that irreparable damage would occur in the event that any of the provisions of this agreement were not performed in accordance with their specific terms or were otherwise breached . . . It is accordingly agreed that the parties shall be entitled to an injunction or injunctions to prevent breaches or threatened breaches of this agreement and to enforce specifically the terms and provisions of this Agreement exclusively in the Delaware Court of Chancery . . . ("**Specific Performance**")
Third-Party Beneficiaries	**§8.10**: This agreement is not intended to and shall not confer upon any person other than the parties hereto any rights or remedies.

Source: Abbreviated sections from Dow Chemical Co., Form 8-K, July 10, 2008.

Exhibit 5 Merger-Related Compensation for Rohm Directors and Officers (Offer = $78 per share)

Person or Group	Total Value of Stock & Options	Total Value of Other Compensation	Total
Raj Gupta (CEO)	$72,409,850	$31,383,647	$103,793,497
Jacques Croisetiere (CFO)	$12,523,636	$9,245,321	$21,768,957
Alan Barton (a)	$2,405,676	$1,741,086	$4,146,762
Pierre Brondeau (COO)	$13,379,231	$9,551,890	$22,931,121
Roberty Lonergan (EVP)	$9,110,539	$5,124,344	$14,234,883
9 Other Executive Officers	$15,487,566	$18,499,902	$33,987,468
11 Non-employee Directors	$66,556,776	$19,475,657	$86,032,433
Total (25 persons)	**$191,873,273**	**$95,021,847**	**$286,895,120**

Person or Group	Number of Shares Owned (b)	Number of Exercisable Options	Value of Shares Owned	Value of Exercisable Options	Total Value of Stock & Options
Gupta	275,512	1,301,742	$21,489,936	$50,919,914	$72,409,850
Croisetiere	82,532	169,844	$6,437,496	$6,086,140	$12,523,636
Barton (a)	30,842	0	$2,405,676	$0	$2,405,676
Brondeau	97,793	167,120	$7,627,854	$5,751,377	$13,379,231
Lonergan	36,906	173,802	$2,878,668	$6,231,871	$9,110,539
9 Other Executive Officers	180,127	41,076	$14,049,906	$1,437,660	$15,487,566
11 Non-employee Directors	853,292	0	$66,556,776	0	$66,556,776
Total (25 persons)	**1,557,004**	**1,853,584**	**$121,446,312**	**$70,426,961**	**$191,873,273**

Person or Group	Value of Other Forms of Compensation: Short-Term Incentive Bonuses	Severance & Pension Benefits	Employee Transition Payments	Unvested Shares (c)	Total Value of Other Compensation
Gupta	$365,754	$9,956,217	$5,000,000	$16,061,676	$31,383,647
Croisetiere	$126,795	$2,952,575	$1,000,000	$5,165,951	$9,245,321
Barton (a)	$89,610	$0	$0	$1,651,476	$1,741,086
Brondeau	$136,548	$3,192,847	$1,000,000	$5,222,495	$9,551,890
Lonergan	$65,836	$1,815,512	$500,000	$2,742,996	$5,124,344
9 Other Executive Officers	$402,293	$1,495,124	$2,500,750	$14,101,735	$18,499,902
11 Non-employee Directors	0	0	0	$19,475,657	$19,475,657
Total (25 persons)	**$1,186,836**	**$19,412,275**	**$10,000,750**	**$64,421,986**	**$95,021,847**

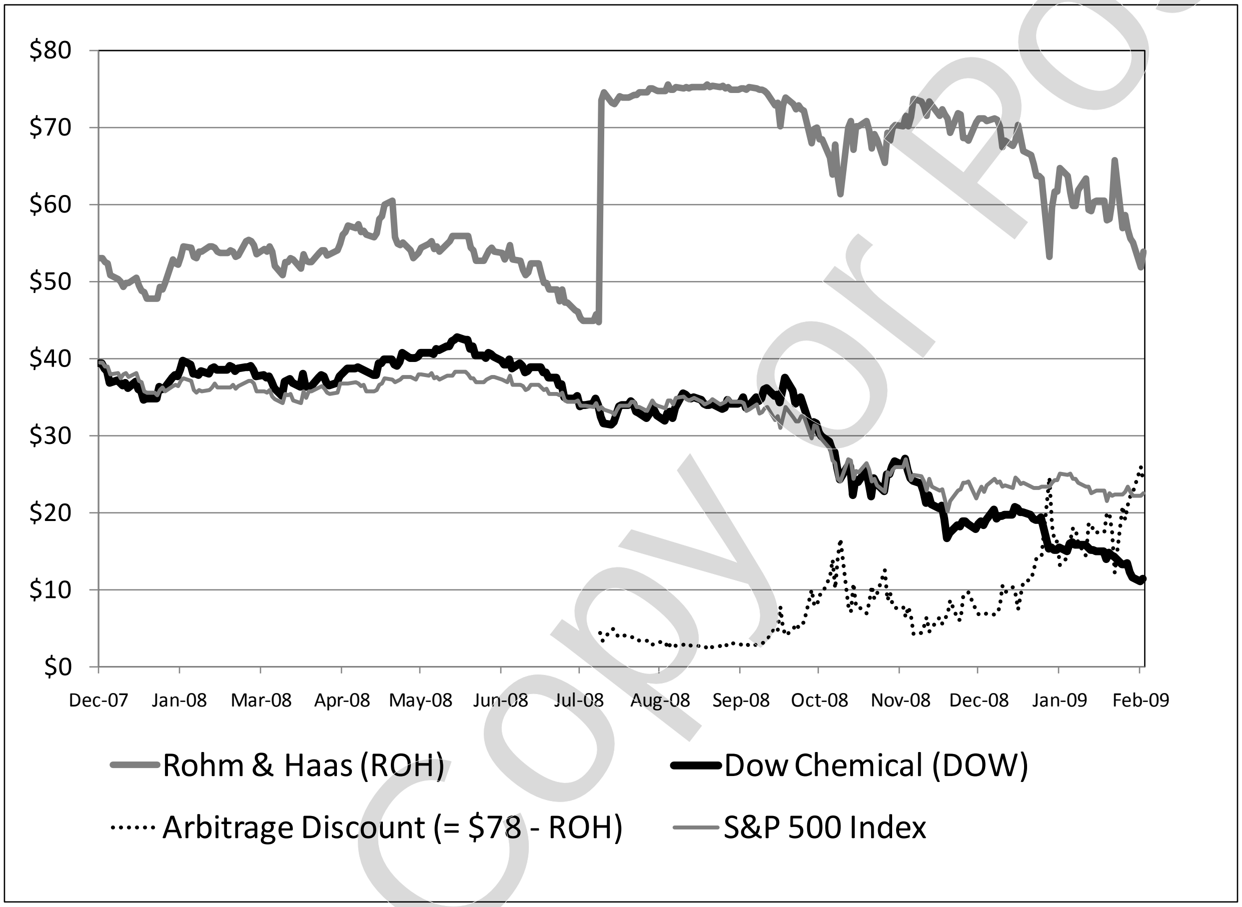
Source: Casewriter analysis, adapted from Rohm and Haas Forms DEF14A (3/19/08) and DEFM14A (9/29/08).

Notes: a) Alan Barton (formerly executive vice president [EVP]) left Rohm and Haas in August 2008.

b) Includes shares owned directly and indirectly through a savings plan and an employee stock ownership plan (ESOP).

c) Includes stock options, restricted stock, restricted share units, and performance share awards.

Exhibit 6 Dow Chemical and Rohm and Haas Stock Prices, 12/07 to 2/09



Source: Adapted from Datastream, accessed March 16, 2009.

Note: Merger arbitrage is an investment strategy involving the purchase of target shares after a deal is announced. Prior to consummation, target shares often sell at a discount to the offer price, reflecting the possibility that a deal will not close or will not close on time. This "arbitrage discount" or "arbitrage spread" is equal to the offer price minus the current market price (or $78.00 minus Rohm's share price in this exhibit).

Exhibit 7a Rohm and Haas Standalone Cash Flow Forecasts, 2009–2013 (in $ millions)

Assumptions:

Tax Rate =	26%	Effective tax rate (average rate)
Growth Rate =	2%	For future cash flows and terminal value calculations

ORIGINAL Forecast at the Deal Announcement (7/10/08)

	2009	2010	2011	2012
Revenue	$10,286	$10,897	$11,517	$12,132
Earnings bef. Interest, Taxes, and Depr. (EBITDA)	$1,633	$1,793	$1,996	$2,223
Depreciaton & Amortization	$503	$507	$512	$521
Earnings before Interest and Taxes (EBIT)	$1,130	$1,286	$1,484	$1,702
Earnings before Interest After Taxes (EBIAT)	$836	$952	$1,098	$1,259
+ Depreciation & Amortization	$503	$507	$512	$521
- Capital Expenditures	($555)	($556)	($553)	($558)
- Increases in New Working Capital (NWC)	($280)	($295)	($310)	($325)
Total Free Cash Flow	**$504**	**$608**	**$747**	**$897**

*** REVISED * Forecast as of early February 2009**

	2009	2010	2011	2012	2013
Revenue	$8,414	$8,867	$9,340	$9,812	$10,280
Earnings bef. Interest, Taxes, and Depr. (EBITDA)	$1,016	$1,224	$1,456	$1,583	$1,691
Depreciaton & Amortization	$524	$509	$501	$493	$488
Earnings before Interest and Taxes (EBIT)	$492	$715	$955	$1,090	$1,203
Earnings before Interest After Taxes (EBIAT)	$364	$529	$707	$807	$890
+ Depreciation & Amortization	$524	$509	$501	$493	$488
- Capital Expenditures	($461)	($479)	($448)	($451)	($473)
- Increases in New Working Capital (NWC)	($50)	($100)	($200)	($250)	($250)
Total Free Cash Flow	**$377**	**$459**	**$560**	**$599**	**$655**

Source: Casewriter estimates using forecasts from E.H. Yang and L. Amadeo, Oppenheimer Equity Research on Rohm and Haas Company, reports dated 7/10/08 and 2/9/09, accessed via Thompson Research/Investex September 2010.

Exhibit 7b Discount Rate for Rohm and Haas Free Cash Flow Valuation

Weighted Average Cost of Capital (WACC)		Goldman Sachs Assumptions and Sources
Risk-free Rate (R_f)	4.92%	Average 30-year Treasury Yield Over Past 7 Years; Current yield = 4.50%
Equity Beta (β_E)	1.06	Barra's U.S. Equity Model (forward-looking estimate)
Equity Risk Premium (ERP)	5.07%	Ibbotson's Arithmetic Mean (Market - Risk Free Rates) from 1957-2007
Cost of Equity (K_E)	10.3%	Calculated: $K_E = R_f + (\beta_E * \text{ERP})$
Tax Rate	35%	Long-term sustainable tax rate (marginal rate)
Cost of Debt (K_D)	6.1%	Weighted average of rates on Rohm's existing debt as of 12/31/07
Debt / Value Ratio (D/V)	28%	Unstated but implied by the resulting WACC
Equity / Value Ratio (E/V)	72%	Unstated but implied by the resulting WACC
WACC =	**8.5%**	Calculated: $\text{WACC} = [K_D * (1 - \text{Tax Rate}) * (D/V)] + [K_E * (E/V)]$
WACC Range	**7.5% - 9.5%**	

Source: Casewriter analysis based on data in Rohm and Haas Co., Form DEFM14A, dated 9/29/08, p. 28.
Note: Using an average tax rate of 26% to be consistent with the cash flows in Exhibit 7A yields a WACC of 8.7%.

Exhibit 8 Dow's Post-Acquisition Financial Forecast, 2008–2010

	Year-end	2009 Quarterly Data				Year-end
	2008	Q1	Q2 (a)	Q3	Q4	2010
Net Debt						
Long-term Debt (LTD)	$8,042	$8,042	$22,830	$22,330	$21,830	$19,830
Current portion LTD	$1,454	$1,454	$1,454	$1,454	$1,454	$1,454
Notes Payable	$2,360	$2,360	$2,460	$2,460	$2,460	$2,460
Cash	($2,800)	($1,506)	($531)	($879)	($1,945)	($534)
Total Net Debt	$9,056	$10,350	$26,213	$25,365	$23,799	$23,210
Total Equity (b)	$13,511	$13,097	$12,928	$12,750	$12,708	$11,790
Total Capitalization	$22,567	$23,447	$39,141	$38,115	$36,507	$35,000
Net Debt / Total Capitalization (1)	40.1%	44.1%	67.0%	66.5%	65.2%	66.3%
Leverage Ratio (2)	1.30	1.83	5.16	5.33	4.10	3.64
= Net Debt / EBITDA (trailing)						
Trailing 12 month figures:						
Sales	$57,513	$55,034	$55,293	$56,276	$59,659	$63,633
EBITDA	$6,959	$5,654	$5,080	$4,760	$5,801	$6,372
EBITDA Margin	12.1%	10.3%	9.2%	8.5%	9.7%	10.0%
EBIT	$4,333	$3,018	$2,365	$1,978	$2,957	$3,404
Interest Expense	$562	$586	$830	$1,064	$1,247	$1,532
Interest Coverage Ratio	7.71	5.15	2.85	1.86	2.37	2.22
= EBIT / Interest Expense						
Current Ratio (CA / CL)	1.23	1.19	1.26	1.25	1.25	1.17

Source: Casewriter estimates using forecasts from J. Zekauskas et al., J.P. Morgan North America Equity Research, Dow Chemical Report 2/4/09 (Tables 6, 7, & 8), accessed via Thompson Research/Investext on 9/24/10.

Notes:

a) Assumes the Rohm acquisition closes in the second quarter of 2009.

b) Total equity excludes preferred equity and reflects large hedging and pension losses in 2008. It also reflects the payment of cash dividends and the repurchase of shares.

Covenants on the Dow Bridge Loan:

1) Net Debt -to-Total Capitalization < 65% (for this covenant, total equity excludes preferred stock)

2) Leverage Ratio < 4.25X

Exhibit 9a 5-Year Credit Default Swap (CDS) Spreads for Dow, DuPont, and Rohm: 1/08 to 2/09

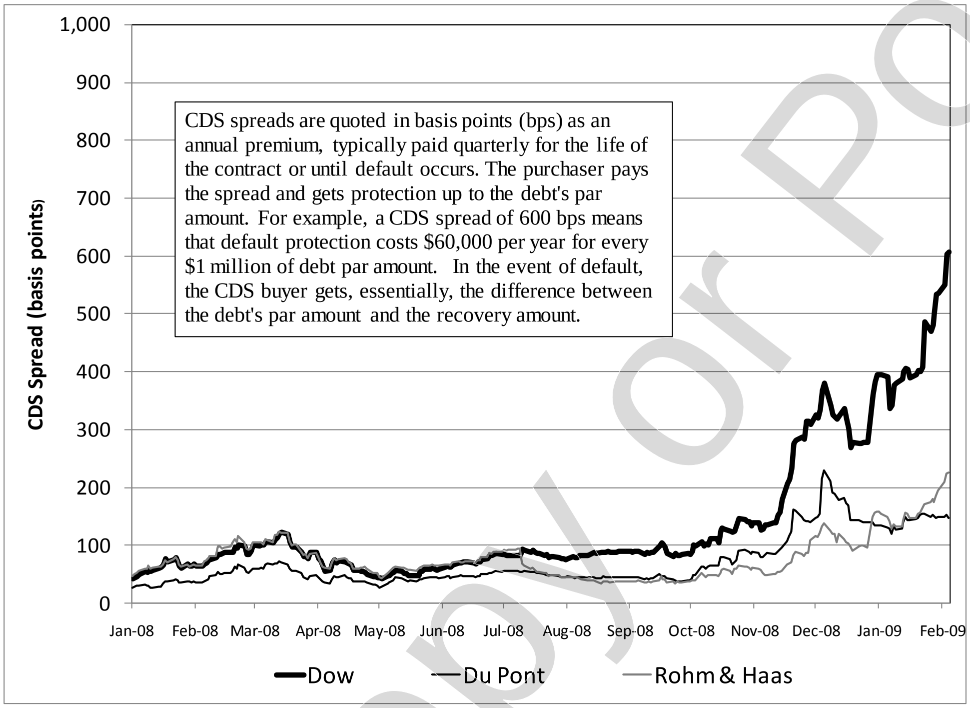
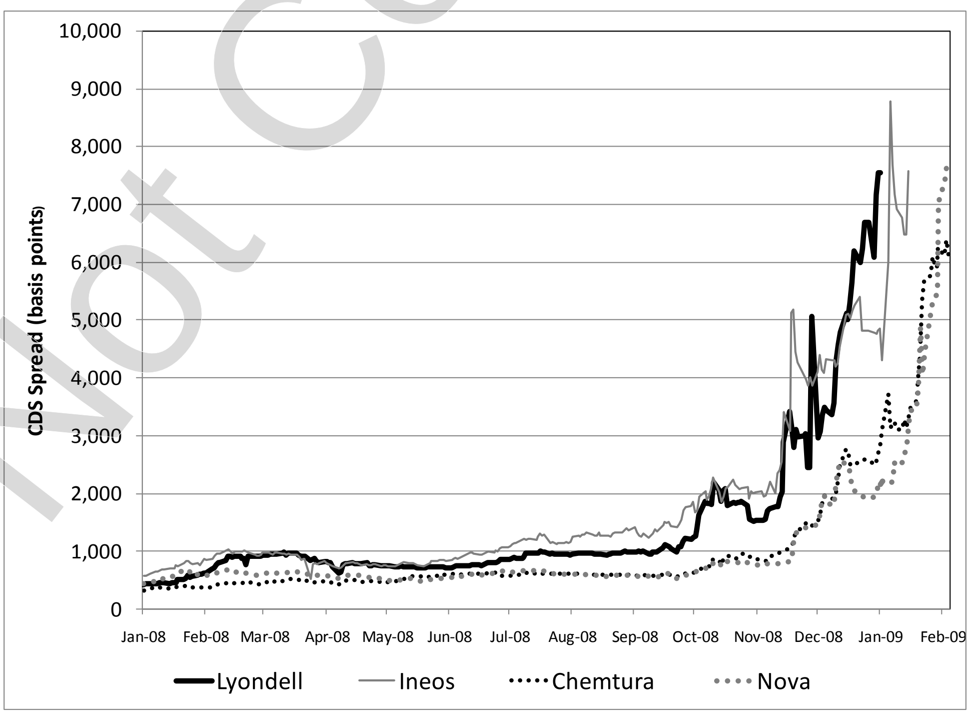


Exhibit 9b 5-Year Credit Default Swap (CDS) Spreads for Junk-Rated Chemical Firms: 1/08 to 2/09



Source: Exhibits 9A and B are adapted from Thompson Reuters Datastream, accessed September 27, 2010.

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[9] Ibid.

[10] G. Andrade, M. Mitchell, and E. Stafford, "New Evidence and Perspectives on Mergers," *Journal of Economic Perspectives* 15, no. 2 (Spring 2001): 103-120. See Table 1 on p. 106.

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[12] Ibid.

[13] Geoffrey Merszei, "The Dow Chemical Company Merger & Acquisition Announcement—Final," Voxant FD wire, 7/10/08, via Factiva, accessed 4/15/09.

[14] Andrew Liveris, "The Dow Chemical Company Merger & Acquisition Announcement—Final," Voxant FD wire, 7/10/08, via Factiva, accessed 4/15/09.

[15] Geoffrey Merszei, "The Dow Chemical Company Merger & Acquisition Announcement—Final," Voxant FD wire, 7/10/08, via Factiva, accessed 4/15/09.

[16] Geoffrey E. Merszei, "Financials," in "Crystallizing Dow's Transformation: The Acquisition of Rohm and Haas," Dow presentation, 7/10/08, p. 24, http://phx.corporate-ir.net/phoenix.zhtml?c=80099&p=irol-presentations, accessed 3/10/09.

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