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Maintaining an Edge at ADI (D): Cellular Handsets Economics

On September 10, 2007, Analog Devices announced the sale of its cellular handset business to MediaTek, a Taiwanese semiconductor company, for $350 million. The conference in Barcelona had generated follow-on conversations with several of the large handset manufacturers in the industry. Unfortunately, those conversations did not lead to the breakthrough sale for which Mr. Kermarrec and his colleagues had hoped.

Soon after the conference, Mr. Fishman began seeking an acquirer for the business. The economics of the cellular handset business demanded scale—perhaps as much as five times ADI's 2006 revenues of $230 million. After several years of seeking the major contracts that could create scale for ADI, Mr. Fishman decided to refocus the company's energies.

MediaTek, with a presence in the cellular handset market more than three times that of ADI, viewed the purchase as attractive for several reasons. Like ADI, MediaTek had concluded that it needed even greater scale to survive and was building scale through acquisitions. MediaTek was particularly interested in building its business in China, the country in which ADI had been most successful, and ADI's TDSCDMA assets were particularly attractive.

While the difficulty of achieving minimal scale was the primary reason for the divestiture, there were others. For example, the Blackfin processor at the core of ADI's cellular handset offering turned out to be less of an advantage than ADI hoped. On one hand, Blackfin's flexibility reduced development costs. It was much easier for a handset developer to program the desired functionality on a Blackfin than it was to hard-code the functionality on a new chip design. The trade-off was that Blackfin's flexibility increased manufacturing costs, a significant drawback in a high-scale sector in which the customers, such as Nokia, were powerful and extremely sensitive to unit costs.

Furthermore, despite the fact that Blackfin simplified development, R&D still amounted to more than one-third of revenues in ADI's cellular handset unit. ADI faced a steep disadvantage against competitors located in the developing world, where engineers' salaries were a fraction of what ADI paid in the United States.

This case was written by Professor Chris Trimble of the Tuck School of Business at Dartmouth. The case was based on research sponsored by the William F. Achtmeyer Center for Global Leadership. It was written for class discussion and not to illustrate effective or ineffective management practices.

Finally, the cellular handset business was extremely volatile and the product life cycles were staggeringly short. For these reasons, the handset business had never appealed to ADI's investors, who were accustomed to steady, long-term returns from high-margin products. Few ADI employees outside the handset unit had ever warmed to the business or its drag on earnings and the value of employee stock options.

Mr. Fishman reflected on the experience:

> I've divested businesses before, but this one was particularly tough. I never thought it would end this way. I know the cellular handset team well; they are some of our sharpest and hardest working. Nonetheless, sometimes you can have great people doing great work and still the fundamental economic forces of a business are too much to overcome. Perhaps we stayed too long.

One last factor in Mr. Fishman's decision to divest the business was a desire to give the nearly 400 employees of the handset business a future with a company that was better positioned to succeed. As part of the agreement with MediaTek, ADI provided a pool of bonus compensation for those who stayed at least one year, and Mr. Fishman expected nearly all to do so. MediaTek agreed to keep employees in their current locations by creating new MediaTek offices nearby.

ADI planned to sustain a presence in the industry by offering specialized high-performance components, including a new, high-performance microphone based on its microelectromechanical-systems technology.