



GSA LEADERS SAY SEMICONDUCTOR INDUSTRY WILL INNOVATE ITS WAY OUT OF THE CURRENT DOWNTURN

Companies Encouraged to Maintain R&D Efforts Preparing for Next Generation of Opportunities

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PART I: STATE OF THE SEMICONDUCTOR INDUSTRY

The semiconductor industry has a rich tradition of managing through dramatic and unforgiving cycles, ranging from years of extraordinary growth, to steep declines. After five unprecedented years of contiguous growth, the industry is now facing a downturn stunning even industry veterans. This downturn is neither related to irrational industry behavior, as in some past cycles that were prompted by overcapacity, nor is the downturn a correction to an Internet/technology bubble. Instead, the current situation is caused by forces beyond our control.

The likelihood of a global recession is no longer questioned—only its length and depth are debated. Most industry veterans predict both long and deep. The semiconductor industry will not go unscathed by a worldwide recession for multiple reasons:

- The industry has wide exposure to consumer markets, accounting for 40 to 60 percent of semiconductor consumption, depending on what you categorize as consumer. And consumers worldwide, especially in the U.S., are under inordinate pressure to reduce discretionary spending. If the unemployment trend continues (recent experts at our Board of Directors' meeting in December predict unemployment could exceed 10 percent), the consumer will certainly jettison optional electronic gadgets;
- The PC market, which has been an industry staple, will slow as a result of corporate downsizing and cost control;
- The worldwide automotive market, which was evolving as a bright spot for future opportunities for semiconductors, is in turmoil;
- And, cell phone providers have readjusted forecasts downward twice in less than a month, indicating this once rapidly growing market will decelerate in 2009.

Consequently, stock prices for the top 25 semiconductor companies declined year-over-year by 45 percent (Figure 1). Of the 115¹ stocks GSA tracks, 44 percent have hit all-time lows in the past two months. Market capitalization by dozens of GSA companies is dramatically less than the cash on their balance sheets. Many of these companies are also cash flow positive with little or no debt.

¹ Due to limited stock information provided on foreign stock exchanges, GSA tracks 115 semiconductor companies that trade on U.S. and Taiwan stock exchanges.

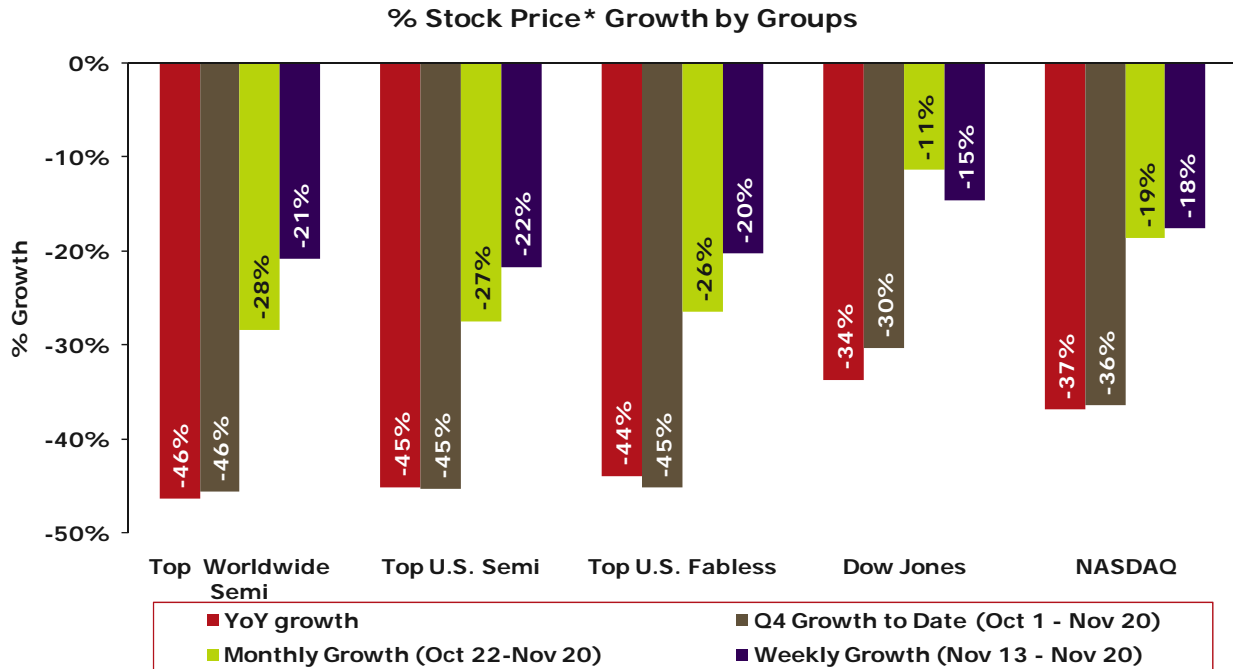


Figure 1. The top 25 semiconductor companies' stock prices declined 45 percent YoY—many hitting record lows.

When investors begin evaluating equity opportunities and value investments again, surely there will be many of the companies in our GSA portfolio that will be attractive.

The most vulnerable companies are the start-ups that are in need of another round of cash to get their products to market, and we were reminded of this fact with the recent closures of Wiquest and Ambric. The companies had raised a combined total of nearly \$100 million, but failed to receive the next round of much-needed capital from investors. This point is hammered home by a widely distributed venture capitalist presentation warning companies of the dire situation they face—The Tombstone Presentation as it has become known. It left little hope for those start-ups whose products were not completed and those that lacked less than a year of cash in the bank.

However, despite the obvious challenges, the volatile nature of this industry has increasingly taught semiconductor companies to be flexible and disciplined in their cost structure, revolutionary in their product and technology development, and responsible stewards of their cash. This is a particularly challenging industry where the most complex products in the world have an average lifecycle of 18 months, followed by the next generation that requires double the performance at half the price. This pace of product development is unparalleled.

So why, if this industry is so challenging, are there still so many chip companies—and new ones—still emerging? The GSA feels there are three primary reasons.

1. **The dream to be the next success story is still alive in the hearts of entrepreneurs all over the world.** This industry is very fluid and dynamic. Half of today's top 10 fabless companies were not even in the rankings in 2000, including Marvell, SanDisk, MediaTek, LSI Corporation and Avago (Figure 2). Ambition, innovation and execution have given rise to many of the today's well-known leaders. There is still an opportunity to build a great company and be a winner. For example, multi-hundred million dollar revenue companies that have emerged in just the last few years include Atheros Communications, Cavium Networks and CSR Ltd., and these companies continue to prosper in today's environment.
2. **There are new opportunities emerging—economies modernizing and new product segments being created.** The combined consumer spending of China and India for example is only one-sixth that of America's. It is not difficult to get excited about the long-term prospects of servicing these markets.
3. **An unprecedented level of innovation is needed to solve our world's many challenges, and start-ups remain the leading source of new ideas.**

	1994	1995	1996	1997	1998	1999	2000
1	Cirrus Logic	Cirrus Logic	Cirrus Logic	Adaptec	ATI Technologies	ATI Technologies	Xilinx
2	Adaptec	Adaptec	Adaptec	Cirrus Logic	Qualcomm (CDMA)	Qualcomm (CDMA)	Altera
3	Xilinx	Altera	Xilinx	Altera	Cirrus Logic	Xilinx	ATI Technologies
4	Cyrix	Xilinx	Altera	ATI Technologies	Adaptec	Altera	Qualcomm (CDMA)
5	Altera	S3	S3	Xilinx	Altera	Adaptec	Broadcom
6	Exar	Cyrix	C-Cube	S3	Xilinx	Cirrus Logic	VIA Tech
7	S3	PMC-Sierra	Oak Technology	C-Cube	C-Cube	Broadcom	Adaptec
8	Lattice	Exar	ESST	ESST	NeoMagic	C-Cube	NVIDIA
9	PMC-Sierra	SIS	Lattice	Lattice	S3	NVIDIA	PMC-Sierra
10	Integrated Circuit	Lattice	PMC-Sierra	Standard Microsystems	ESST	S3	Lattice
	2001	2002	2003	2004	2005	2006	2007
1	Qualcomm (CDMA)	Qualcomm (CDMA)	Qualcomm (CDMA)	QUALCOMM (CDMA)	QUALCOMM (CDMA)	QUALCOMM (CDMA)	QUALCOMM (CDMA)
2	NVIDIA	NVIDIA	NVIDIA	Broadcom	Broadcom	Broadcom	NVIDIA
3	Xilinx	Xilinx	ATI Technologies	ATI Technologies	NVIDIA	SanDisk	SanDisk
4	VIA Tech	ATI Technologies	Broadcom	NVIDIA	SanDisk	NVIDIA	Broadcom
5	Broadcom	Broadcom	Xilinx	SanDisk	ATI Technologies	Marvell	Marvell
6	ATI Technologies	MediaTek	MediaTek	Xilinx	Avago	LSI Logic**	LSI Corporation
7	Altera	VIA Tech	SanDisk	MediaTek	Marvell	Xilinx	MediaTek
8	Cirrus Logic	Altera	Altera	Marvell	Xilinx	MediaTek	Xilinx
9	MediaTek	Marvell	Marvell	Altera	MediaTek	Avago	Avago
10	Adaptec	SanDisk	Conexant	Conexant	Altera	Altera	Altera

 = Company no longer exists
 = New to Top 10 Ranking Since 2000
 ** Changed name to LSI Corporation
 Source: GSA

Figure 2. Half of the top 10 fabless companies were not in the 2000 rankings. Innovation and ambition has since then pushed these companies ahead of other successful predecessors.

COMPANIES ARE IN FIGHTING FORM

The GSA leadership believes that today's semiconductor companies are in much better condition than in past downturns to weather this storm, and they will emerge stronger and ready for the next generation of opportunities.

The balance sheets of semiconductor companies are strong, specifically among the traditional fabless companies.

Since we founded the GSA in 1994 as the Fabless Semiconductor Association (FSA), the industry evolved from an integrated model, whereby each company had to make significant investments to compete on design and manufacturing, to an asset-lite or fabless model, whereby companies direct R&D dollars toward leading designs and the foundry partner takes on the responsibility of capital outlays and process R&D. This has consistently meant a solid return on invested capital (ROIC) for fabless companies. It also means that companies have accumulated a lot of cash. Even capital-intensive companies such as Intel have huge cash reserves. Cumulatively, the top 20 semiconductor companies have more than \$40 billion in cash².

Additionally, very few of these companies have long-term debt—especially the traditional fabless companies. Of the semiconductor companies GSA tracks, less than half have debt on their balance sheets, and 17 have \$1 billion or greater in cash.

Although several large IDMs have accumulated a strong cash balance, they have also accumulated exponentially large amounts of debt that will be an enormous challenge to overcome. For example, of those companies with more than \$1 billion in cash, AMD reported nearly four times the amount of debt to their \$1.3 billion cash amount, and Micron and Linear Technology both have nearly a two-time debt-to-cash ratio (Figure 3). But of course, AMD is one of the latest companies to announce an asset-lite business model. After purchasing ATI a few years ago, AMD must have been impressed with the complexity of ATI's design capabilities and their skill at working collaboratively with their manufacturing partners.

² Cash is \$28 billion not including Intel.

Company	Cash* (Q3'08) (\$000)	Debt (Q3'08) (\$000)	Debt-to-Cash Ratio
1 Intel	\$12,204,000	\$1,889,000	0.2
2 Qualcomm	\$6,411,000	\$0	0.0
3 Broadcom	\$2,246,730	\$0	0.0
4 Texas Instruments	\$1,993,000	\$0	0.0
5 STMicroelectronics	\$1,594,000	\$2,487,000	1.6
6 SanDisk	\$1,574,220	\$1,225,000	0.8
7 Micron Technology	\$1,362,000	\$2,451,000	1.8
8 AMD	\$1,341,000	\$4,968,000	3.7
9 NVIDIA	\$1,304,890	\$0	0.0
10 Xilinx	\$1,301,010	\$999,560	0.4
11 Altera	\$1,283,170	\$500,000	0.8
12 Analog Devices (ADI)	\$1,309,686	\$0	0.0
13 Maxim	\$1,256,460	\$0	0.0
14 Infineon	\$1,211,014	\$1,512,359	1.2
15 LSI Corp.	\$1,173,930	\$715,600	0.6
16 Microchip Technology	\$1,108,420	\$1,149,500	1.0
17 Linear Technology	\$1,021,870	\$1,700,000	1.7

* = Includes Cash, Cash & Equiv & Short-term investments

Sources: Company reports

Figure 3. Seventeen companies have \$1+ billion in cash; however, six have more debt than cash. (Source: Company Reports)

As of December 15, 2008, nine companies with no debt were trading below cash value. In addition to having more cash than their market capitalization value and zero debt, Trident Microsystems also reported a positive cash flow. The company can essentially take their cash, sell their assets and buy the entire company with money left over to distribute to investors (Figure 4).

Companies Trading Below Cash With No Debt

Company	Cash (Q3'08) (\$000)	Market Cap (12/15/08) (\$000)	Positive Cash Flow (Q3'08)
Dataram	\$16,352	\$10,730	No
Ikanos Communications	\$39,159	\$31,570	No
Integrated Silicon Solution, Inc. (ISSI)	\$40,187	\$40,130	No
Leadis Technology	\$29,621	\$12,360	No
MEMSIC	\$64,222	\$40,090	No
Metalink	\$8,770	\$3,520	No
SiRF Technology	\$100,090	\$88,720	No
Trident Microsystems	\$230,100	\$111,300	Yes
Vimicro International	\$119,760	\$64,220	No

Figure 4. Companies trading below cash with no debt

There are many well-positioned companies poised to grow and remain profitable through 2009.

According to Gartner's latest semiconductor sales forecasts, industry revenue is expected to decline 4 percent in 2008, and analysts' forecasts range from a 2 percent decline in 2009 to a 16.3 percent drop. Only four weeks ago, Gartner's semiconductor sales forecasts included a 0.2 percent growth in 2008 and a 2.2 percent revenue reduction in 2009. Within the past month, the true impact the financial crisis is having on the industry emerged, resulting in an unprecedented negative impact on Q4 2008 sales and profits. However, despite the recent dramatic forecast revisions, GSA still believes that this deceleration will be less brutish than the 32 percent downturn of 2001.

Furthermore, there are still companies expected to grow in this environment, including GSA member companies such as MediaTek, Atheros Communications, Broadcom, Cavium Networks, Silicon Laboratories, Volterra, Exar, Intellon, HiSilicon and PMC-Sierra (Figure 5).

Company	Region	2008 Revenue Est. (US\$000)	2009 Revenue Est. (US\$000)	YoY Growth	2009 EPS
Cavium Networks	N. America	\$89,960	\$124,870	38.8%	\$0.58
Intellon	N. America	\$75,590	101,960	34.9%	\$0.32
Atheros Communications	N. America	\$506,880	\$549,760	8.5%	\$1.31
MediaTek	Asia Pacific	\$2,845,841	\$3,064,403	7.7%	N/A
Exar Corporation	N. America	\$129,290	\$138,660	7.2%	\$0.22
Hittite Microwave	N. America	\$179,070	\$190,990	6.7%	\$1.79
Volterra Semiconductor	N. America	\$109,770	\$116,650	6.3%	\$0.81
Silicon Laboratories	N. America	\$425,630	\$444,870	4.5%	\$1.74
Linear Technology	N. America	\$1,110,000	\$1,160,000	4.5%	\$1.64
STMicroelectronics	N. America	\$10,150,000	\$10,380,000	2.3%	\$0.67
Broadcom	N. America	\$4,732,870	\$4,832,190	2.1%	\$1.36
PMC-Sierra	N. America	\$532,910	\$543,300	1.9%	\$0.43

Figure 5. Companies with expected growth through 2009.

Of the 135³ companies GSA found 2009 estimates for, only 43 (or 32 percent) expect to lose money next year. That means that this is still a profitable and attractive industry.

³ Due to limited available 2009 estimates, GSA was able to find estimates for 135 semiconductor companies.

We also see several start-up companies that may have the opportunity for IPOs in the next few years if the markets open up—companies such as Inphi, Luminary Micro and ViXS.

Inventories are much leaner than during the disastrous in 2001-bubble crash.

Analysts differ over the level of inventory in the market right now. This is certainly dependent on what market you are serving, but there is general consensus that our member companies have managed their inventory levels much more carefully than in 2001. Wachovia's David Wong said, "The difference is particularly noticeable for the chip distributor and contract manufacturer composites, which was where we saw the more severe inventory issues during the 2001-2002 downturn." Furthermore, he indicated that, "Technology companies are doing their best to minimize inventory issues, which may help electronics companies recover more rapidly than in the 2001-2002 downturn once economic conditions improve. At an investor conference on November 18, 2008, Arrow Electronics commented that the risk of excess inventory builds within the current downturn is much less than in the prior downturn. Also, in a recent meeting with Sun's management, they said Sun is not currently seeing any issues with excess server systems being sold on secondary markets, which is one problem that occurred in the prior downturn."

P/Es are at multi-year lows even among the bellwether companies.

It can still be argued by the bears that price per earnings (P/Es) could, and even deserve, to get lower. But, having tracked this industry's P/Es since 1994, it is difficult to believe that companies' P/E ratios are reflecting their true value. Even major segment leaders are trading at single-digit P/Es. For example, Texas Instruments is trading at 8.5 P/E and Intel at 10.6 (Figure 6).

	Company	Forward P/E*	Current	2007	2006	2005	2004	2003	2002	2001	2000
1	Sunplus Tech	--	23.0	3.8	2.5	--	--	--	--	--	--
2	Phison Electronics	16.6	21.5	7.4	7.4	9.8	--	--	--	--	--
3	Power Int.	20.6	19.4	32	70.4	42.3	38.5	75.8	54.4	83.3	37.4
4	Broadcom	26.8	17.8	25.0	54.0	39.0	71.6	-5.3	-3.0	-4.3	-60.0
5	QUALCOMM	18.6	17.3	23.3	20.8	30.6	30.5	29.9	28.9	59.3	-89.5
6	MediaTek	14.3	16.2	9.9	14.4	--	--	--	--	--	--
7	Altera	12.5	13.7	26.3	21.8	26.8	29.7	44.6	69.7	-250.2	36
8	QLogic	10.2	12.9	22.2	28.9	24.4	26.7	51.9	35.2	59	107.1
9	Xilinx	11.0	12.4	19.8	24	26.9	35.1	38	66.9	-114.2	662.4
10	Linear Technology	13.7	12.2	19.1	23.7	26.7	27.3	38.5	40.1	66.5	42.6
11	Analog Devices	11.7	12.2	23.7	25	37.5	30.6	42.5	127.6	49.2	42.2
12	Semtech	14.6	11.9	22.6	35.1	32	30.3	55.3	51.4	99.2	43.6
13	NVIDIA	12.8	11.7	21.3	24.5	18.4	38.3	66	45.5	41.7	44.4
14	Intel	11.5	10.6	19.9	23.2	17.8	22.3	27.5	50.5	155.4	36.4
15	National Semi	10.2	9.0	18.4	21.5	20.6	16	24.4	-98.7	-43.5	25.6
16	Texas Inst. (TI)	9.6	8.5	18.4	18.4	22.1	26.5	31	-122.6	-292.5	36.7
17	PMC-Sierra	10.5	7.6	-33	-17.6	59.1	50.5	-253.1	-31	-9	404.3
18	ON Semi	4.4	6.6	13	8	20.8	-9.4	-3.8	-3.0	-1.0	32
19	NovaTek	4.4	4.1	10.3	13.2	--	--	--	--	--	--
20	Himax Tech	3.4	2.9	8.6	16.4	--	--	--	--	--	--

Figure 6. P/E ratios are at multi-year low for many leading semiconductor companies. (As of November 17, 2008)

The end markets serviced by the semiconductor industry are more diverse than ever before.

The growth of the semiconductor industry has been fueled by the adoption and proliferation of the PC, the cellular phone and the Internet. Today, these platforms and their offspring have driven an amazing diversification of products and applications, and semiconductors are becoming a larger percentage of all modern electronics.

In 2001, the technology industry simply fell apart. And although end market growth has certainly slowed down and is expected to decelerate through 2009, long-term growth prospects for wireline, wireless and consumer markets still remain. Plus, these markets all have huge growth potential post-recession. The worldwide handset revenue will approach \$142 billion in 2008 and then continue a 7 percent growth on average per year. Even if 2009 proves to be the exception to these growth expectations, it is clear that this market has legs and will return to growth. The worldwide wireless LAN (WLAN) semiconductor market expected to pass the \$4 billion mark by 2012, with a 22.8 percent compound annual growth rate (CAGR). And, consumer semiconductor revenue is still expected to grow at a CAGR of 10 percent through 2013.

Semiconductors are in more products than ever, and there is nothing that can replace the integrated circuit. This is not like the Big three U.S. automakers, whereby they are facing a paradigm shift in the way automobiles are manufactured.

Today, there is more than \$300 worth of chips in an average automobile, compared to only half of that less than a decade ago (Figure 7). It is expected that the silicon value in automobiles will double again by 2020, or even more so with the movement to smarter cars that operate on multiple fuels and maximize energy efficiency.

The growth of the semiconductor industry is also being driven by the modernization of emerging economies such as China, India, Russia, Africa and South America. These emerging regions still have immense untapped opportunities.

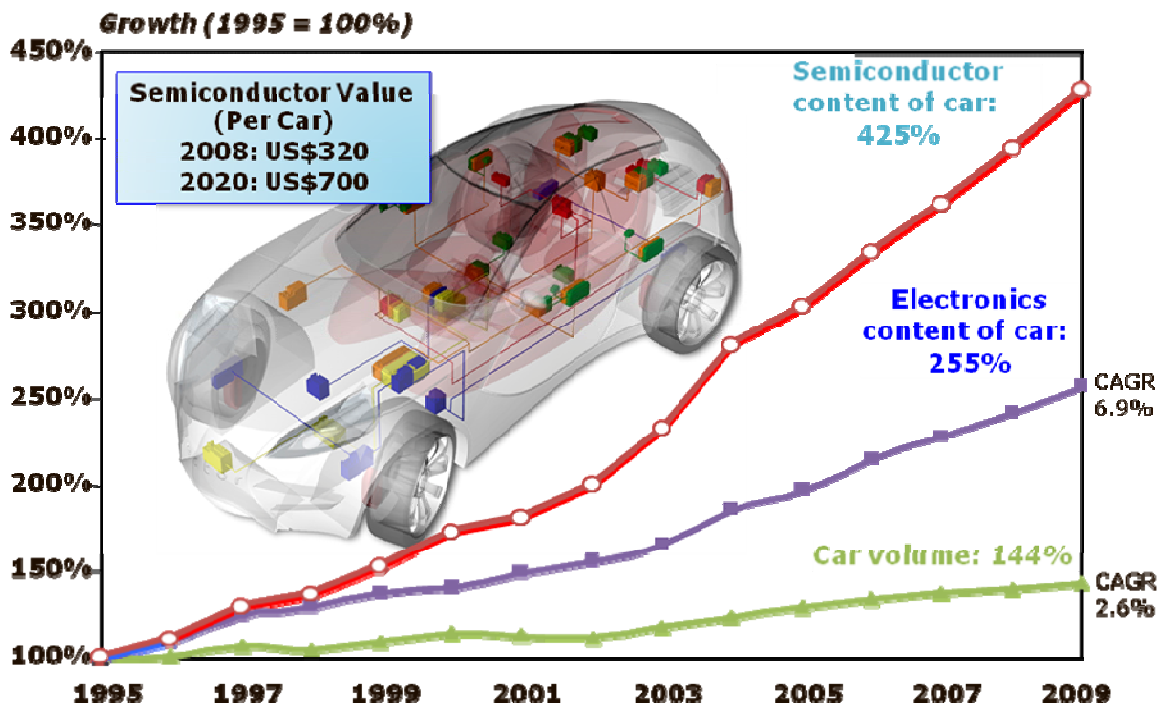


Figure 7. Automobile semiconductor content 1995 to 2009. (Source: Infineon)

Capital spending has already decreased dramatically in 2008 and is expected to decline again in 2009.

The GSA hypothesized in the early 1990s that if there were fewer companies making capital expenditure decisions, these decisions would be more rational and would result in less gyrations. Today, there are 26 companies that have 300mm fabs, compared to 75 with 200mm fabs. This hypothesis is proving out as the industry reduced capital expenditures by 24 percent to \$46 billion in 2008 and plans another cut of 18 percent in 2009 to \$37.7 billion—the lowest capital spending amount since 2003, according to IC Insights. Taiwan’s 2008 capital expenditures are forecast to decline 40 percent; Korea is expected to be down 17 percent; and Europe down 15 percent (Figure 8).

According to Wachovia, heavy capacity investment continued right into the onset of the 2001 downturn. The ratio of semiconductor equipment purchases to semiconductor sales peaked in March 2001 at 31 percent. In 2007 and 2008, this ratio fell from 24 percent in 2007 to 12 percent in October 2008.

Today, semiconductor spending per IC is \$0.29 versus a high of \$0.89 in 1997 and an average of \$0.64. Thus, this downturn will not be exacerbated by a capacity glut, which has in the past prompted or prolonged downturns.

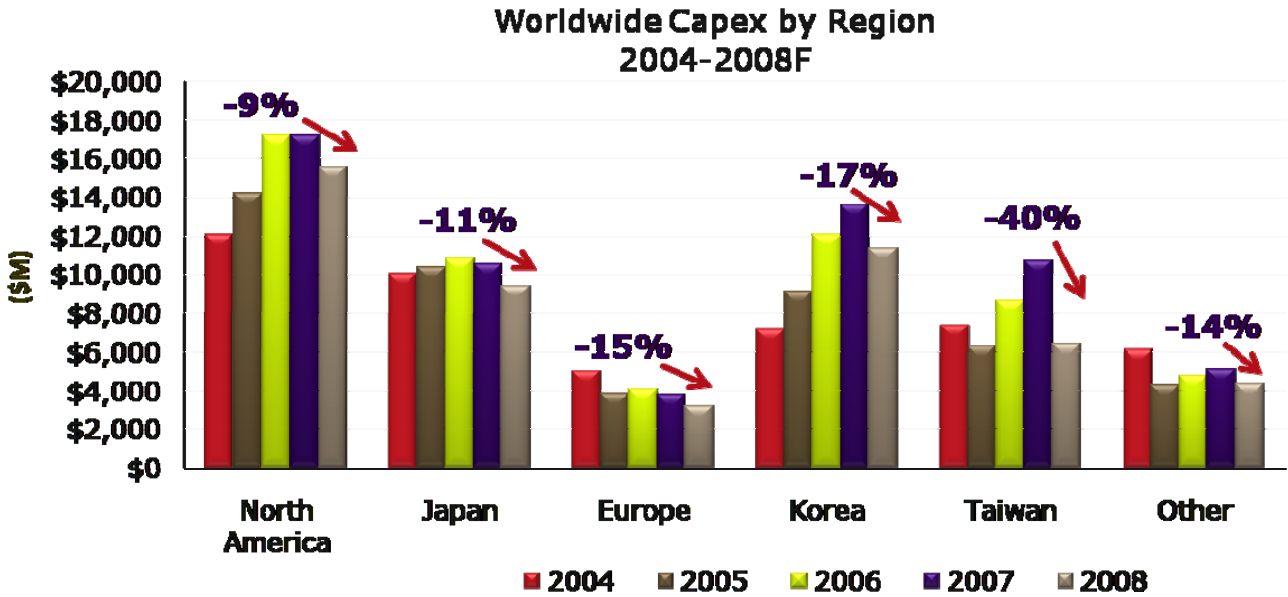


Figure 8. Capex is declining heavily in all regions. (Source: IC Insights)

IC Insights has shown some convincing evidence that prolonged reduction in capital expenditures will result in higher ASPs eventually. This could be a good thing that comes out of this downturn (Figure 9).

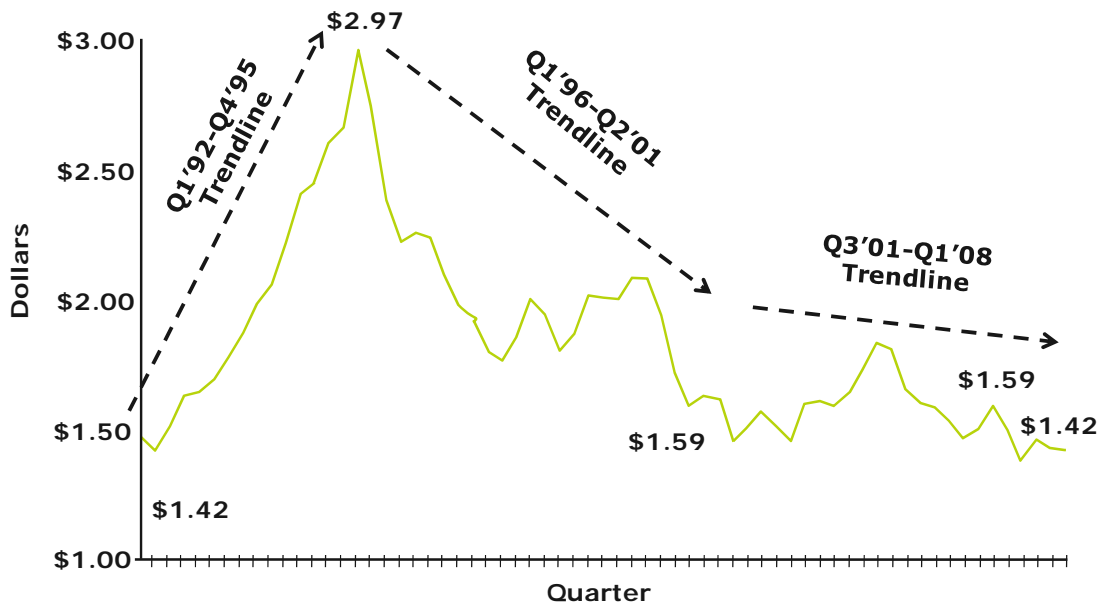


Figure 9. Quarterly ASP trends as a result of capex reductions (Source: IC Insights)

PART II: MANAGING THE DOWNTURN

For companies to manage this downturn, one must look at the industry's role models and observe what they generally do during down cycles.

- A slowing industry growth is forcing companies to increasingly focus on appropriate cost structures. This means that companies that have chosen a fabless model have made the right decision, such as LSI Corporation, which chose to transition to this model in 2005; while AMD is the most recent convert. Without the weight of a fab and the R&D that comes with that expenditure, companies can be more agile and focus their resources more constructively. Some companies will choose a more asset-lite model for various strategic reasons.
- Success will increasingly require collaboration and integration of supply-chain partners into a cohesive unit – designers, EDA and IP vendors, foundries, assembly and test. This probably seems like a cliché by now, but for a company to really succeed in today's market, it is essential for them to work with their partners ahead of time on new products. You not only have to work with them yourself, but you have to demand they work with your entire ecosystem of partners. This cluster approach will set companies up for success.

Companies should also complement their supplier partner relationship collaborations by staying connected and engaged through GSA. Our platform is ideal for companies to effectively utilize their resources. We have active efforts in IP, EDA and Test, and we have initiatives underway in the wireless and automotive segments and analog and mixed signal. In 2001, when the market declined dramatically, we saw very little attrition in GSA membership because companies saw the value of what we offer.

- This seems like an ideal time for the industry to consolidate. But, this consolidation phenomenon has yet to happen, and there does not appear to be much of an appetite for acquisitions. In a recent *Electronic Business* interview, Scott McGregor, CEO of Broadcom, said Broadcom would continue to seek strong engineering teams with excellent technology that either fills an area of business that they are looking for or augments areas to let them enter new spaces. He believes the price tag for doing that has improved. From what McGregor indicated in the interview, there will be acquisitions. Those that are most successful will be based on a strategic need by the company—to have a certain technology; geographic team; product line to buttress their existing portfolio; or a prized channel.

However, no one seems to be in any hurry to acquire companies, even those that seem to be a bargain. One reason is that for the short term, cash is the most valued possession. Not putting cash to use is not intuitive for technology companies, and in a different environment they may not be valued highly for hoarding cash. But today, the more cash the better. Second, companies might get cheaper. And last, the non-

cash currency is greatly devalued (stock price), therefore, small companies seeking to be acquired shouldn't currently depend on this exit strategy.

- Successful companies have also developed their own process expertise. This provides them with control, while alleviating the need for ownership. Having the talent to work more intimately with foundry partners is important. North American companies such as Xilinx and NVIDIA have done this for quite awhile, but there are Chinese companies in the analog space that have teams working with their foundry partners as well.
- Develop a software expertise. As products evolve and complexity increases, system work is continually migrating to engineering teams within the silicon companies and away from end OEMs. Companies focusing on methodology and productivity have a time-to-market advantage. This software expertise allows you to provide real solutions for your customers.
- Product diversification helps companies protect margins. This is, of course, difficult for small companies, but it can reduce segment and customer dependence. This can be very important when any one sector goes down.
- Do not sacrifice R&D spending during the downturn. R&D dollars should remain the same or increase as a percentage of sales for those programs that are part of your company's long-term roadmap. This may be a good time to shut down projects that are not strategic, but do not abandon those areas that are your company's future (Figure 10).

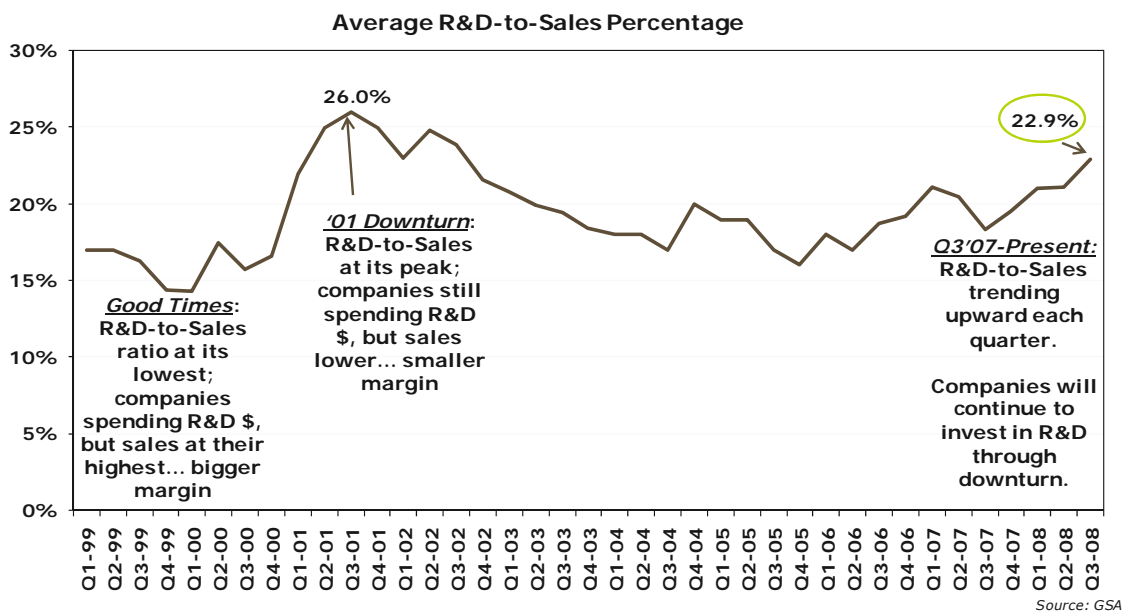


Figure 10. Companies are expected to continue to invest in R&D through the downturn.

- Companies should consider offering dividends after the down cycle and profits improve. Only a handful of semiconductor companies pay dividends today, and returns to investors are important (Figure 11). As indicated before, cash is strong for many companies, which is a positive thing in these conditions, but Wall Street doesn't reward huge cash amounts in better economic times. According to global investment management firm, AllianceBernstein, it does not matter to your firm's valuation how you distribute ("package") earnings, as long as you do distribute them. Dividends and share repurchases are equally valid ways to transfer wealth to shareholders; but hoarding cash reduces wealth.

IDM				Fabless			
Company	Dividend Per Share* (\$)	Dividend Yield (%)	Dividend Payout Ratio	Company	Dividend Per Share* (\$)	Dividend Yield (%)	Dividend Payout Ratio
Analog Devices	0.80	4.8	28%	Altera	0.20	1.4	17%
Intel	0.56	4.2	41%	Himax	0.55	53.4	76%
Intersil	0.48	6.1	30%	QUALCOMM	0.64	2.0	33%
IXYS	0.12	1.6	N/A	Wavecom	1.25	12.5	N/A
Linear Technology	0.84	4.2	46%	Xilinx	0.56	3.6	41%
Micrel	0.14	2.1	29%				
Microchip	1.36	7.5	82%				
National Semi	0.32	3.1	17%				
Samsung	5.20	1.8	N/A				
Sony	0.78	2.09	44%				
STMicro	0.31	4.9	N/A				
Texas Inst. (TI)	0.40	2.7	21%				
Toshiba	0.52	N/A	30.4%				

* = Total of the expected dividend payments over the next 12 months.

Figure 11. Semiconductor companies currently offering dividends

CONCLUSION

In summary, the semiconductor industry **will innovate** its way out of the downturn, and great companies will be prepared for next-generation opportunities.

GSA is dedicated to working side-by-side with the supply chain, informing everyone on trends and data that will help manage companies through the down cycle. In Q1 2009, we will reintroduce the FABLS Stock Index to measure public fabless company stock performance against other indexes. We also plan to revamp the way we communicate semiconductor financial intelligence, and provide new methods of keeping everyone



informed on the state of the industry. In addition, we invite CEOs to participate in the J.P. Morgan/GSA Semiconductor CEO Sentiment Index beginning in January⁴.

This will not be the worst downturn this industry has ever faced, considering we survived a 32 percent sales decline from 2000 to 2001, and rapidly bounced back to achieve historic levels. Although things seem very unstable right now, this industry is in a better position than it was in 2001 in terms of financial position, inventory levels, capacity and end markets.

The semiconductor industry should be proud. Its contribution to modern life is profound, and the technology we are creating today will have a positive impact on humanity by creating a cleaner world by reducing power consumption, fueling new smart technologies and revolutionizing healthcare.

⁴ *If your company CEO is interested in monitoring the sentiment of global CEOs—suppliers, peers and competitors—ask them to participate in the J.P. Morgan/GSA Semiconductor CEO Sentiment Index, which begins January 2009. Contact Lisa Tafoya at ltafoya@gsaglobal.org.*