

# Myths About the Sub-\$1,000 PC

*Segment Will Remain Small, Providing Some Foothold for Intel's Competitors*



The emergence of the sub-\$1,000 PC market reflects an inexorable trend toward less-expensive systems that will surely doom Intel in the long run. You could easily be convinced of this argument by the blizzard of recent stories on low-cost PCs. These stories, however, are based on myths, not facts, and the emergence of this new market is not likely to upset the status quo.

**Myth: Sub-\$1,000 PCs represent up to 40% of the PC market.** This gem is based on misinterpretations of a survey by Computer Intelligence (a sister company of ours) that shows an increasing percentage of PC sales below \$1,000 during the course of 1997. Sales in this category peaked at nearly 40% in August, but this survey measures only the U.S. retail desktop PC market, which represents less than 10% of the worldwide PC market and has specific characteristics that make it unusually receptive to sub-\$1,000 PCs.

In particular, it is mainly a consumer channel; two-thirds of all PCs are still bought by businesses, where the sub-\$1,000 concept is far less popular. Many business users seek faster systems to increase productivity. Others shun low-end systems to avoid rapid obsolescence. Although low-cost PCs run today's software adequately, firms looking to upgrade to Windows NT and other advanced software in the future might not be able to afford the limitations of a sub-\$1,000 PC. These systems also lack expansion slots in some cases, giving new meaning to the term "fixed asset."

The survey also doesn't include worldwide demand. While the sub-\$1,000 PC is popular in emerging markets such as China, the large markets such as Europe and Japan have been slow to change their focus. Finally, the survey excludes mobile systems, which make up more than 20% of the total PC market but are not available for less than \$1,000. We believe total sales of sub-\$1,000 PCs were perhaps 5 million units in 1997 and will approach 10 million units, roughly 10% of the worldwide PC market, in 1998.

**Myth: Sub-\$1,000 PCs have been enabled by low-cost CPUs from Cyrix and AMD.** Sub-\$1,000 PCs have been available for years; the problem has been that their capabilities were well below the needs of contemporary software. The new popularity of low-cost systems has been driven mainly by two factors: a drop in DRAM and storage prices along with a lack of performance-hungry software.

DRAM prices have dropped nearly 90% in the past two years. The price of a 1G hard drive also fell precipitously. In years past, PC makers would simply increase the DRAM and

hard-disk capacity in their entry-level systems, keeping prices constant. Component prices fell so fast in 1997, however, that many vendors chose to discount their entry-level configurations rather than beef them up.

This decision was aided by a relative stagnation in software demands. Given a lack of compelling new software (see [MPR 11/17/97, p. 3](#)), an \$799 PC provides good performance on Windows 95 and basic applications. A 1G disk and 32M of memory are more than enough for this software.

Using a low-end processor from one of Intel's competitors can shave \$20 to \$40 in cost, a significant amount in a sub-\$1,000 PC. But similar savings can be achieved by adjusting the memory, storage, or other features of the system, which account for 80% of the total system cost. Many PC makers have decided the Intel brand name is worth the extra expense. Both HP and Micron, for example, have chosen a Pentium/MMX-200 for their \$799 PCs.

**Myth: The trend toward lower prices is irreversible.** The factors that made low-cost PCs popular can easily be halted or even reversed. Since December, DRAM prices have firmed and even started to rise, as bleeding chip makers finally began to rein in production. This situation, exacerbated by Asian financial turmoil, could cause shortages as early as next year. In addition, the unusually fast progress in hard-disk density over the past two years is likely to return to historical rates.

More important, new software will emerge that demands faster processors, more memory, and larger hard drives. Windows 98 won't do the trick, but digital photography, videoconferencing, voice recognition, and other muscular applications might. Both Intel and Microsoft, companies I avoid betting against, are investing heavily to make sure that today's software doesn't remain good enough. Demand for low-cost PCs will dry up if those systems can't run the most popular new programs.

These factors won't change immediately, and sub-\$1,000 PCs are likely to be popular in some channels throughout this year and probably beyond. They will remain a relatively small part of the total PC market, however, particularly when measured in dollars. This price segment will provide a foothold for Intel's competitors, but to achieve their market-share goals, AMD and Cyrix must do more than simply sell cheap processors. □