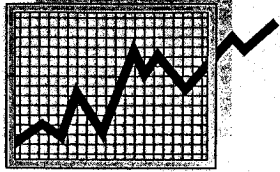


# Micro Economics



## Not a young and restless market

**F**orget the technical details about Windows 95, forget the hype, and lighten up. For the next few minutes, view the computer industry as a soap opera. This is a surprisingly great way to learn about the economics of operating systems.

Watch an average daytime soap and compare it to the latest computer trade publication. They are not much different. The soap opera takes place in a region called Grass Valley, while most computer market stories occur in a region called Silicon Valley. All the soap actors review events with the utmost seriousness and drama; everyone involved in our industry also takes it too seriously. In both cases, day-to-day developments are hypnotic. In both, the main players and the basic stories change very little from one year to the next. (Good soaps are also occasionally interrupted by commercials for laundry detergent and floor wax, but that is not relevant for this comparison.)

### The software salesman

Bill sells software. Bill is energetic, opportunistic, and combative. His company can single-handedly make or destroy any other firm. Bill has vision—vision that has infuriated virtually everyone in the Valley for the last 15 years. Bill is rich and famous. He has been on the cover of *Time*. Bill's life looks like something from *Dallas*, except that some details are more unbelievable, and nobody has tried to do away with Bill.

Bill's company has a new product called Windows 95. According to the press releases, Windows 95 is the most revolutionary operating system since Charles Babbage invented computers. According to Valley gossip, it involved the most expensive marketing campaign since MacArthur's invasion of the Philippines.

Though Bill would never admit it, Bill's product is an imitation of the operating system for a computer Apple Corporation made several years ago. However, Bill expects to sell many more operating systems than Apple ever sold computers, even though, by every engineering measure and usability standard, Apple's old computers look as good as Bill's new operating system. Not surprisingly, this really frustrates the employees of Apple. Yet, they cannot complain; Apple's founders made most of their money selling imitations of a computer developed at Xerox Laboratories.

### The chip builder

Andy sells chips at Intel. Like Bill, Andy has thrived over the last fifteen years. Unlike Bill, Andy is neither filthy rich nor abrasive in public. This explains why Andy is both more popular in the Valley and not as famous outside it.

Andy obeys Moore's law, even though it is not a law. It is, in fact, an old prediction about how fast Intel could cram transistors on chips. Moore's law has important repercussions for the decline of chip prices and the growth of the personal computer market (and perhaps for the US economy's long-term health). Andy's biggest concern is that he can't continue cramming in transistors as fast as Moore's law says he should. Everyone in the Valley believes that Andy is partly right: Chip evolution will probably slow down someday—maybe in our lifetime. However, those in the Valley aren't holding their breath.

While Windows 95 is fine and dandy with Andy, he has not lost much sleep over its fate. Most computers will still have Intel inside whether this version of Windows succeeds or not. Andy calls this "guaranteed demand." Others call it monopoly.

Shane Greenstein

University of Illinois

1206 S. Sixth Street

Champaign, IL 61820

sgreenstein@commerce.

cba.uiuc.edu

## The lawyer

When Janet, the Attorney General, first arrived on the scene, she was Bill's enemy. She briefly became his friend until a judge disallowed their peace treaty. Then they started feuding again. Janet will not draw a clear line in the sand because she wants to keep her options open. In some circles this is called antitrust policy.

Janet recently visited Bill's company and asked him to explain its behavior. If she had stopped shifting the line, thinks Bill, he could have built Windows 95 to avoid a future visit. Bill is right and so is Janet, and neither is backing down. Some call this a standoff. Others figure that Bill is waiting for Janet's boss to lose the next general election.

## The specter

The ghost of Thomas Watson Jr. haunts the halls of IBM. The ghost wails, "What have you done to my company?" Many investors, white as ghosts, echo him. Some people say these visits began when Andy and Bill became prominent in the Valley. IBM's official position is that there are no ghosts.

Though nobody there will admit it, IBM may have nurtured its own downfall. Many years ago, IBM had several good opportunities to control the direction of technical change. Instead, it sold Bill and Andy the keys to the store and helped their companies grow. Oddly, no executive was ever fired for this blunder. Instead, scores of workers received layoff notices or retired early. (Even though this is a soap opera, sometimes truth is stranger than fiction.)

Windows 95 resembles an operating system that IBM has been marketing for a few years. IBM expects to sell many fewer operating systems than Bill's company, even though by every engineering measure and usability standard, IBM's old operating system looks as good as Bill's new one. Nobody at IBM complains too loudly,

however, because IBM's operating system arose from a failed joint venture with Bill's company. Some say IBM managed the venture badly. Others whisper that Bill outmaneuvered IBM. As the Roman philosophers said about their empire's collapse, this would be a comedy if it were not such a tragedy.

## The nightmare

The Blob continues to eat everyone. This monster is Bill's biggest nightmare. It involves a cast of thousands. The Blob is often called networking. Who controls networks? No one controls networks! Who controls the Internet? No one controls the Internet! The Blob just keeps getting bigger and bigger and eating everything. Windows 95 is Bill's latest attempt to control this monster. (We shall see.)

## The cure

A bartender works the local watering hole where industry has-beens and wanna-bes swap past glories and future plans. Some of these people were actually stars and miss the limelight. Some are stars only in their own minds. Many claim to have an idea that will change the market for years to come. The bartender shrugs his shoulders and nods in agreement.

The bartender moonlights down the street at the country club where the big players socialize. In the last few years the country club has not changed much. Most of the members joined over a dozen years ago, including Andy and Bill.

The country club members look and talk just like the little guys in the bar. Patrons of both places dress in jeans and open-collar shirts. Everyone believes in the virtues of entrepreneurial capitalism. Everyone believes that US government trade policy should favor American monopolies over Japanese monopolies. Nobody in either place admits that these two beliefs are incompatible.

Yet, the bartender notices a big dif-

ference. None of the country club members worry about revolutionizing the industry, and none of them worry whether the little guys in the bar will ever grab the limelight. If he could just bottle the country club confidence and certainty, thinks the bartender, he would give it to his little customers in the bar. Then the patrons of the two places would be exactly alike.

## Closing credits

Tune in tomorrow, and the market will not be much different. Bill will still be selling software; Andy will still be selling chips. The antitrust issues that bother Janet will not have disappeared. Ghosts will still haunt IBM. Bill will still be trying to stop the networking Blob from eating everything, but Bill and Andy will still be members of the elite, for good or ill.

Viewing Windows 95 as one episode of a soap gives us a new perspective on recent events. Is Windows 95 truly revolutionary? Hardly: The same characters who controlled the industry yesterday will control it tomorrow. Is Windows 95 a well-designed product? Possibly, but good design is no guarantee of popularity. Does Bill have vision? Yes, but so what? It is easier to succeed when a product inherits marketing advantages that everyone envies and nobody can emulate.

More to the point, Windows 95 arose from this market's structure and cannot change it in fundamental ways. Nonetheless, these events will continue to hypnotize us. So please stay tuned.

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