The Global Macintosh Installed Base

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In contrast to days past when the cumulative installed base of Macintosh products lagged behind the rest of the personal-computer pack, the Macintosh has experienced a visible turnaround on a global scale. All indicators now point to continued healthy unit growth worldwide.

International Data Corporation (IDC) research shows that by 1991, the worldwide installed base of Macintosh products had grown to more than seven times the size it was in 1986.

As figure 1 shows (see below), the total installed base grew from just less than 1 million units in 1986 to almost 7 million units at the end of 1991— a compound annual growth rate (CAGR) of 39.5 percent. In 1990 alone, the installed base grew from 4.94 million to almost 7 million units.

Looking ahead (see figure 2 below), IDC predicts that the impressive growth of recent years will continue for the Macintosh. The growth should be driven by several factors: shorter product development cycles; an increase in networking and communications products that “hook” into other products (that is, products that are less stand-alone); a more cross-platform approach to printing and scanning; and the availability of more products on the market.

Although the annual growth rate will probably not be characterized by the strong year-to-year changes of the late ’80s and early ’90s, the Macintosh installed-base curve should continue its upward climb.

By 1996, IDC projects that the total worldwide installed base of Macintosh products will be 19.6 million units, or nearly triple the size of the 1991 high.

Also, when the installed base increases, there’s a corollary increase in shipments. Not surprisingly, then, IDC projects that worldwide shipments of all Macintosh products will grow one and a half times between 1991 and 1996.

In fact, thanks to the low-end products, Macintosh CPU shipments nearly doubled between 1990 and 1991, growing from 1.4 million units to 2.3 million units. Obviously, the installed base demonstrated a corresponding leap in total units.

U.S. and International Sales

Another phenomenon—the increasing global acceptance of the Macintosh—emerges if we break down the worldwide installed base by geographic region. Since the mid-1980s, Apple has concentrated on building a presence in international markets. Although language barriers and distribution challenges allowed only a gradual increase in sales at first, the proportion of international sales eventually made a sharp upswing.

Between 1986 and 1991, the geographic mix of the Macintosh base experienced substantial change. As shown in figure 3, (see below) the vast majority of the worldwide installed base in 1986 was in the U.S. At that time, only 16 percent of all Macintosh systems were installed outside the U.S. Of that 16 percent, IDC estimates that the bulk of installations were in Europe. During the following five years, the non-U.S. share of the total installed base reached 44 percent.

Several factors contributed to the geographic shifts shown in figure 3:

- In earlier years, Apple's international marketing strategy was less clearly defined than it is today. The Pacific region, as defined by the company (which includes Japan, the Far East, Australia, Canada, and Latin America), received relatively little attention. Apple's European efforts, while more advanced, were still in their nascent stages in the mid-1980s.
- As Apple Computer Europe increased its marketing efforts and offered a broader product line, the company's visibility in that region improved substantially.

• Starting in 1988, the company redefined its marketing efforts in Japan, the strongest-performing country in the Pacific region. Starting with that year, sales in Japan began to double annually, making a corresponding impact on sales for the entire Pacific region.

Apple's rapidly-increasing installed base in Pacific markets grew from the application of a Japanese business model—a clear case of learning "When in Rome, do as the Romans do."

• Sales of personal computers in the European and Pacific regions began to increase between 1986 and 1991, yielding a corresponding increase in sales of Apple/ Macintosh products. Despite these increases, though, those regions still have a low per-capita usage of computers, indicating continued market potential.

• Cost is always a factor. As the European markets entered a period of weakening economies, the premium pricing of Macintosh products hindered sales. Apple's introduction of a more responsive pricing scheme in 1990 and 1991 has been effective in driving sales.

• Sales in the Pacific region are hampered by the extraordinary personal-space constraints in countries such as Japan, where individual workers do not have the luxury of a traditional office or even a "private" cubicle. When an individual's total working area is limited to the surface of a single desk, effective use of space becomes a major purchasing factor and affects the nature and number of computers purchased.

International Futures

In addition to increasing its efforts in many non-U.S. markets, Apple has also instituted improved or newly-introduced translations of the Macintosh operating system (including Kanji for the Japanese market), and has begun to market a more diverse product line internationally.

All these elements, combined with a more favorable purchasing environment, have led to substantially increased sales in all markets. The result: By 1991 Apple had increased its non-U.S. installed base from around 154,000 units in 1986 to a respectable

3.1 million units. In 1991, 31 percent of all Macintosh units installed were in Europe, and the Pacific region had grown to 13 percent of the total installed base.

IDC projects that the international diversity of the Macintosh sales mix will continue to gain strength and that shipments in non-U.S. markets will exceed U.S. shipments by 1993. The cumulative effect is that the U.S. installed base, while remaining strong, will be eclipsed by the combined European and Pacific markets by 1996.

Future Success Factors. The continued success of the Macintosh will be due to many factors:

- A broader acceptance of the personal computer in general, and Apple's products in particular. Cautious purchasing in European markets in many cases has been driven by a conservative approach to technology and by a reluctance to buy noncommodity products.

As computers become more of a commodity product, people are likely to feel more comfortable buying them.

- The Apple/IBM alliance has yielded far-reaching effects. In all markets (U.S., Europe, and Pacific), it has resulted in many corporate buyers giving broader consideration to Macintosh products than they previously would have. Essentially, the relationship with IBM has strengthened the worldwide market opportunities for Apple.
- Pricing is always an issue. By implementing a new pricing strategy, Apple eliminated its old premium-pricing image and in its place created a highly effective price/ performance model. Although it's too soon to determine the ultimate effects, the fact that the company is structuring its pricing to be compatible with that of comparable Intel-based personal computers is a promising sign. The immediate effect is obvious: By altering the pricing scheme, the company can sell more product, and the installed base will grow. It opens the market to users and corporations that previously may have held back.
- The dynamics of the international markets themselves are changing. Most notably, the integration of Eastern Europe into the European region introduces products to a new group of consumers.

The ease of use offered by the Macintosh should drive sales in those new markets.

IDC anticipates similar effects with the opening of many Latin American markets. Many Latin American countries that previously had heavy import restrictions are beginning to allow more-unrestricted imports of computer products. Gray markets previously dominated Latin American sales, but the reduction or elimination of import restrictions will create opportunities to build a distribution network.

Growth Through 1996

As the worldwide Macintosh installed base continues to grow, it will create a self-perpetuating side effect: Apple, as a company, will appear stronger and more viable—which in turn will attract more customers.

Of the three regions, the U.S. market will probably remain dominant, growing from almost 4 million installed units in 1991 to 9.54 million units in 1996, or close to three times its current size (see figure 4 below).

Taken individually, Pacific and European markets will outpace the U.S. in compound annual growth (33 percent and 29 percent, respectively). Figure 4 shows that the European market will also triple in size, growing from 2.2 million units in 1991 to 6.9 million units by 1996. The Pacific market displays similar growth rates, and more than triples during that time from .88 million units in 1991 to 3.1 million units in 1996.

As mentioned earlier, the market mix will also change by 1996. Figure 5 shows that in 1991 the United States represents 56 percent of the total installed base, with Europe at 31 percent and the Pacific at 13 percent. By 1996, IDC predicts the installed-base composition to be the U.S. at 49 percent, Europe at 35 percent, and the Pacific at 16 percent.

It’s clear that the Macintosh will continue to gradually become established with an increasingly global customer base, and will experience long-term, solid growth.

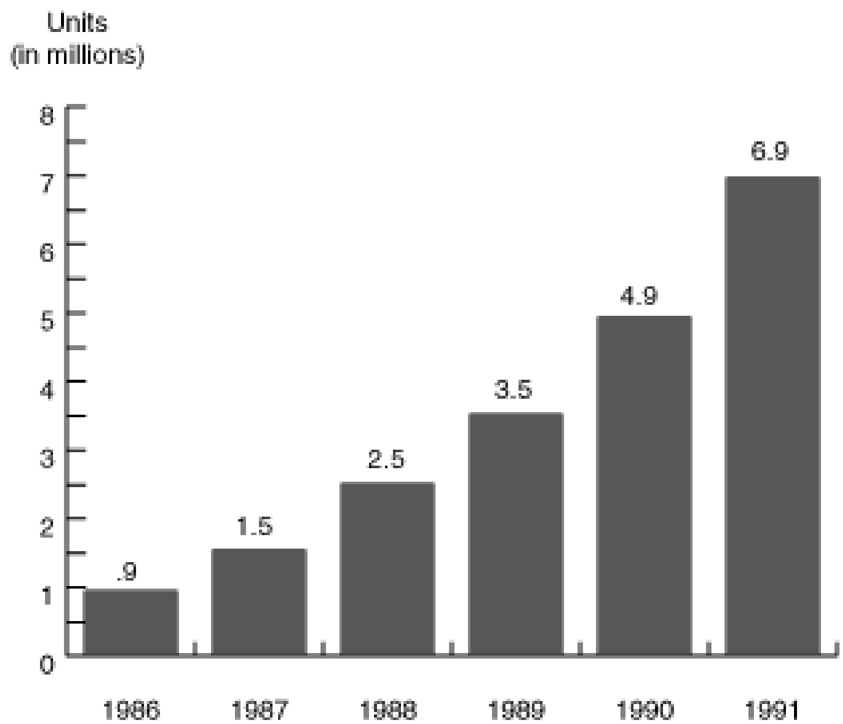

Figure 1: An historical perspective of the worldwide Macintosh installed base, 1986–1991

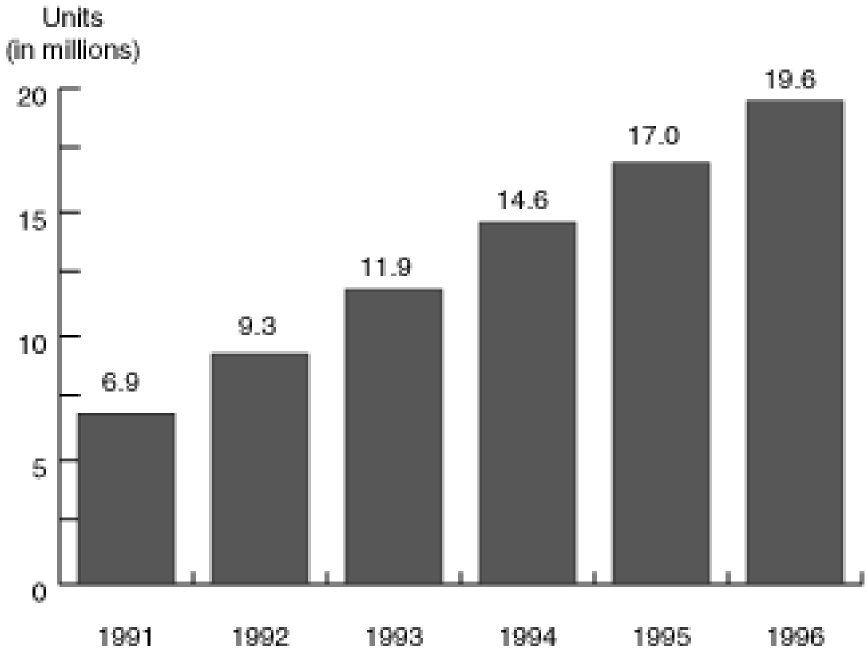

Figure 2 : 1991–1996 forecast of the Macintosh installed base

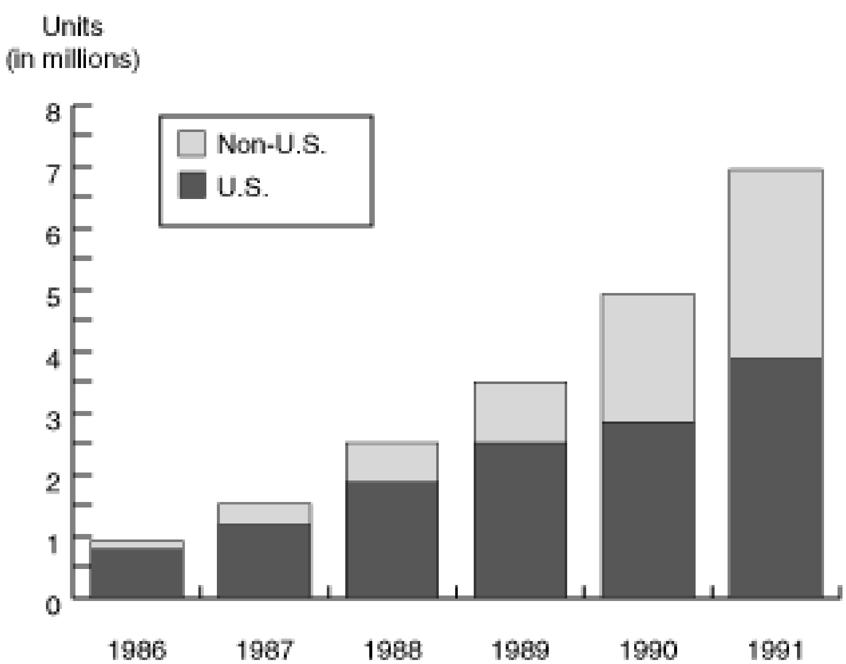

Figure 3: Global distribution of the worldwide Macintosh installed base, 1986–1991

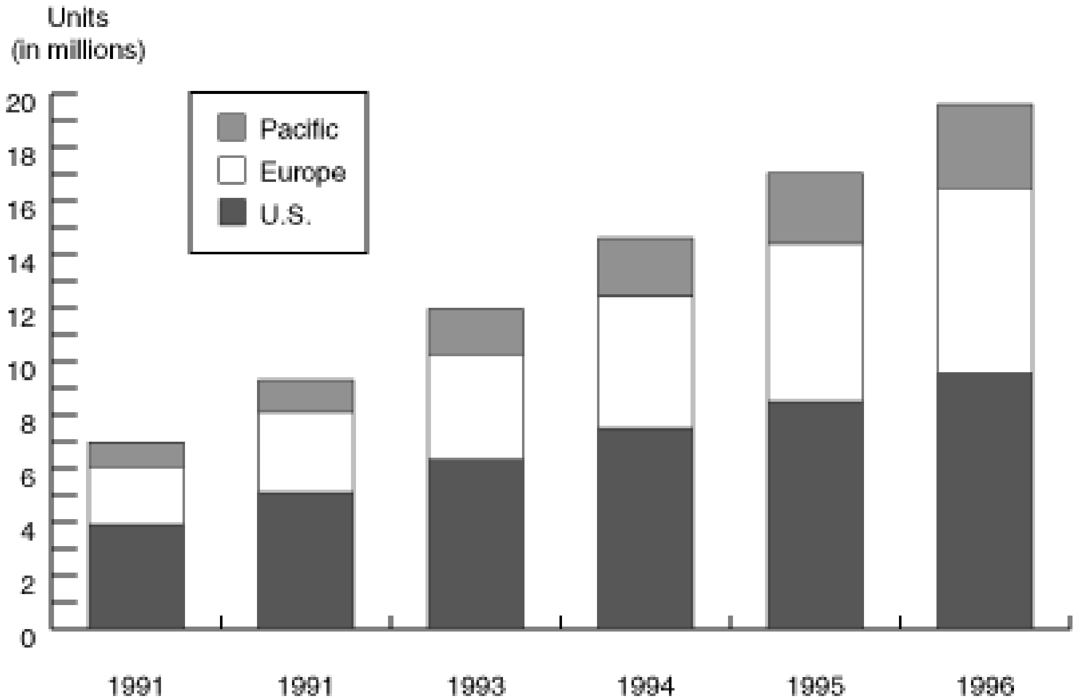

Figure 4: 1991–1996 geographic distribution of the worldwide Macintosh installed base

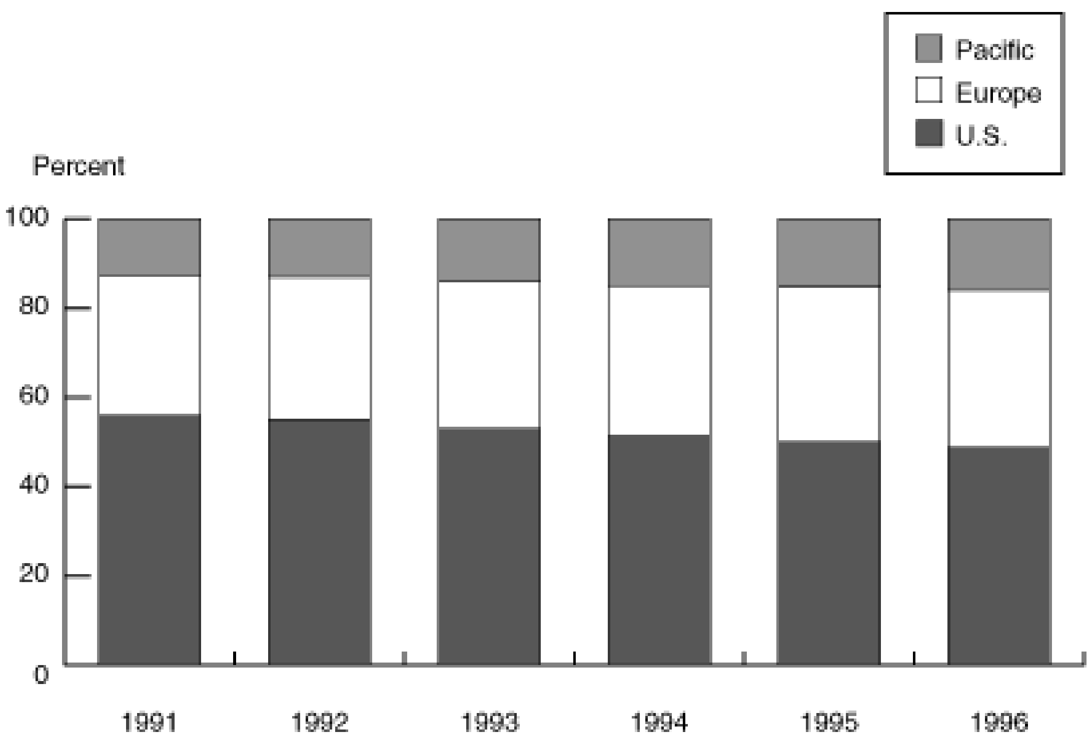

Figure 5: 1991–1996 percentage share, by geographic region, of the worldwide Macintosh installed base