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Signs of improvement

Once upon a time businesses would renew their IT equipment every three years to keep pace with advancing technology. But two years of economic uncertainty have seen attitudes change, with many small firms now making do with upgrades. Dominic Bucknall looks at how and why the market has changed and whether things will ever be the same again

Everyone agrees that the PC business is in the doldrums. But is a depressed PC business necessarily bad for its customers – the big companies, small firms and consumers that buy its products? A bit of historical perspective will help to answer those questions.

The turn of the millennium saw unprecedented optimism in digital technology and seemingly endless profits issuing from the companies that supplied it. This was the culmination of eight years of economic growth led by the US. Markets had boomed, share prices risen and investor confidence knew no bounds. It was said by analysts that the US had broken through the boom-bust cycle, that years of investment in IT was paying off in the shape of increased productivity and the formation of a true digital economy. This linking of the long boom with IT fuelled the optimism within the market: simply put, technology would save the world.

Early on in this feel-good era, the media discovered the internet. It had been there for years, of course, populated by primitive tribes of geeks and academics – no more an information superhighway than a dirt track is a motorway. But pretty soon we were all extolling the virtues of email, then the web, then e-commerce, then dotcoms.

And with e-commerce the virtuous circle was complete: IT investment and economic success were forever married in the collective business mind, believing that dotcoms would rewrite the rules of economics. What we didn't realise was that behind closed doors the chief executives of some rather large firms were rewriting their financial statements because the profits shareholders demanded just weren't there.

Party like it's 1999

With the discovery of the internet, the telecoms industry was suddenly merged (or 'converged', as the analysts liked to say) with the computer business. Either way, the fates of the computer and telecoms markets were now inextricably linked. Mobile phones would no longer be just phones, they'd be portable wireless internet access terminals.

Meanwhile, in the midst of the boom, the PC business was reaping a double whammy: selling PCs to new techno-aware businesses and consumers and selling even more PCs to big corporations worried that their existing machines wouldn't cope with the year 2000 date change, popularised as the Millennium bug.

Confidence in dotcoms dribbled away when profits failed to materialise; ditto with telcos when they'd spent boatloads on 3G (third generation) licences. And when the Nasdaq technology share index in the US finally crashed, it was followed on its way through the floorboards by the Dow Jones and every stock market across the world. Dotcoms expired by the dozen, trillions of dollars were wiped off share prices, PC sales slowed.

The terrorist attacks on New York and Washington on 11 September 01 have been blamed erroneously for a lot of economic misery, but arguably a bigger blow to confidence were the corporate accounting scandals, such as Enron and Worldcom – economic timebombs left not by terrorists, but accountants and chief executives. If you can't trust the numbers, you can't do business.

For the computer industry, these were momentous events. For the average UK customer, it was mostly business as usual.

Seeing a shrink

The big US PC suppliers, grown fat on flogging their wares to overheated dotcoms and rich corporates, suffered the most. Some failed and some merged, but all of them shrank. Indigenous European suppliers profited from the US withdrawal, continuing to sell to their core market of small businesses and consumers.

But now even the smaller suppliers are feeling the pinch. Pockets of growth remain – for example, the education market and sales of notebooks – but things are, at best, flat.

The emphasis for consumers has shifted from breaking the bank for the latest and greatest technology to making the most of what you've got. The suppliers, with fewer customers to sell to, now have to concentrate on aftersales service so as to keep the customers they've got.

The message from customers is clear: 'I'm a customer, be nice to me or I'll go elsewhere'. This can only be a good thing for buyers and, in the long run, for the suppliers, too. The PC business will benefit from the poor suppliers being weeded out and the good ones – those that know how to look after customers – given room to grow.

So is there a likelihood that the computer business will return to a state of booming sales?

Analyse this

This August, when market research firm IDC released its new forecasts for IT spending in 2002 and 2003, it predicted a spending recovery before the end of 2002. Based on current economic expectations, worldwide IT spending this year will reach $981bn, an increase of 3.7 percent over 2001, says the report. Although spending on IT hardware will show a year-on-year decrease of four percent this year, increased spending on software and services will result in positive growth for the total IT market.

IDC believes that in 2003, with gradual economic recovery translating into improved business profits, worldwide IT spending will see growth of nine percent to exceed $1trillion ($1,000bn) for the first

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time in the industry's history – a larger total market size than at the height of the dotcom boom in 2000. Spending on hardware products will see a recovery to positive growth of five percent, says IDC.

But in Europe few businesses expect a return to the aberrant volume of sales that characterised the late 1990s. Furthermore, according to monitor manufacturer Taxan's sales and marketing director Hugh Chappell, the PC market has changed fundamentally.

Chappell sees the commoditisation of the market as one of the key factors, with endless price cutting reducing profit margins to slivers. But at the same time the technology is maturing: "The days are gone when you could keep on adding value by increasing something obvious like the size of a monitor from 14 to 17 to 19in. Nowadays it's very hard to offer an obvious incentive that will get buyers upgrading. Beyond a certain point, the same is true for processors or hard disks," says Chappell.

Like many, Taxan's Chappell also regards Windows XP and Office XP as insufficient incentives to encourage widespread hardware upgrading in the home market. "New features are not necessarily added value as far as the consumer is concerned," he says.

Come in Pentium II, your time's up

There's a widespread view within the industry that huge numbers of PCs around the world – especially in large companies – are overdue for replacement.

In 1998 and 1999 businesses replaced their PCs with new machines, all certified to be unaffected by the so-called Millennium bug. However, four years later those new machines are struggling to keep up with modern software. Industry analysts agree that when corporates start to replace their PC stock, it will have a significant revitalising effect on the computer industry as a whole.

So when will the process begin? The average life of a desktop PC in a large company is three to four years – typically the time it takes to write it off as an asset. So if a company replaced its PCs in 1999 to cope with the Millennium bug, replacement is due in 2003.

This doesn't hold true for smaller companies in Britain where recent changes to tax rules allow for 100 percent of the cost of IT purchases to be written off in the first year.

But whether we are talking about small or large firms, the failure of the dotcoms to live up to their impossible promises has resulted in a zeitgeist of distrust in IT as a whole. IT budgets have shrunk for hardware, but grown for software and services – as evidenced by IDC's figures. Companies are basically learning to do more with what they have already.

Back to basics

This deferral of the corporate PC refresh can't continue indefinitely. Consider the pressures on IT managers to call time on ageing computers. Even with zealous maintenance, machines under heavy, continuous usage for three years and more become increasingly failure-prone. When the cost of downtime and disruption to business activity comes to the attention of senior management, funds will be released.

Then there's the familiar problem of obsolescence. The Intel Pentium II and Pentium III systems put in place four years ago were potent enough in their day, but the world has moved on. Although businesses are historically slow in adopting new versions of the operating system, they will be forced to do so eventually.

The processor, disk space and memory requirements imposed by Windows XP virtually preclude upgrading the operating system only. Just like the home PC buyer who discovers that upgrading to XP slows their machine to a crawl, to move on from Windows 95, 98 and NT, firms will need to replace the hardware as well.

Richard Austin, managing director of PC maker Evesham, believes the corporate sector is not the only area of the market where improved sales in 2003 are likely. He feels small- and medium-sized businesses in Britain underinvest in IT.

"Though many companies tend to view IT as something of a black art, things have changed. Nowadays small networks are cheap and straightforward to install and easy to manage. You don't need an IT manager in-house; management can be handled by your supplier and it doesn't cost much at all," says Austin.

This is an area where Austin thinks PC suppliers and their customers stand to gain. "The supplier profits by adding value in terms of providing managed services for its customers' networks. The customer gets a flexible, headache-free network based on current-generation low-cost servers. It's easy to add new users, you can have multiple email addresses, one per user. Then there's the wireless aspect and all the potential convenience that offers."

A less rosy picture

Not everyone shares the optimism of US-based market analyst IDC when it comes to predicting when a recovery will occur. Britain's Martin Butler, a veteran of the IT industry, paints a very different picture. Butler thinks recovery won't begin until 2004 and next year will be just as horrible for the computer suppliers as this year. Nor does he see PC hardware contributing to a recovery.

Revisiting theories first mooted in the early 1990s, Butler says IT has very little effect on the success of a business because it is applied to only two of the seven things that contribute to a successful business (refer to the list below).

What makes a business successful?

1. **Lean production**
2. **Customer preference for products and services**
3. **Market share**
4. **People and culture**
5. **Innovation and differentiation**
6. **Market growth**
7. **Vertical integration with customers and suppliers**

The way IT is applied in most companies, it only affects factors one and seven, says Butler. "Companies are obsessed with lean production, but that only makes them more efficient, not better at business. They can still be bad, but efficiently bad."

The next wave of IT expansion will come in the form of internet services as the five biggest computer suppliers – IBM, Microsoft, HP, Oracle and Sun – try to make money from services rather than from hardware or software. This will account for over two-thirds of big companies' IT budgets.

Web services – applications that are hosted by the computer vendor and supplied on tap instead of being owned by the customer – will be used to integrate big firms' external customer-facing systems with their internal backoffice systems.

In the corporate world this concept might manifest itself in, say, a retailer that offers personalised instore promotions by linking its point-of-sale computers with the millions of gigabytes of customer loyalty card data that retailers have been collecting but not yet done much with. Suppliers such as Oracle and IBM are pre-eminent in this area.

In the consumer world, the notion of web services is embodied in Microsoft's .Net programme. Indeed, users of Windows XP will already be getting used to the idea that they only lease the operating system from Microsoft which retains ownership of it and thereby a stake in the hardware on which it is installed.

Consumer culture

Outside of business, the long-awaited arrival of affordable broadband internet access will affect the home market by changing the kinds of things people do with the web.

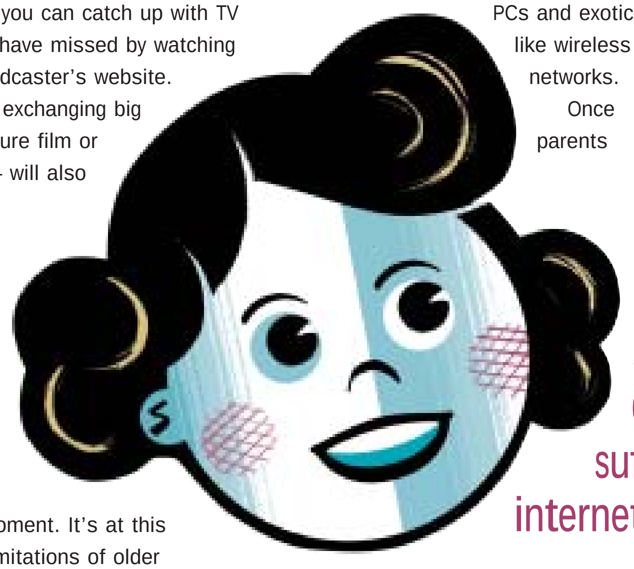
Broadband will make watching high-quality video straight off the web ('streaming' video) a practical reality for the first time, so you can catch up with TV programmes you have missed by watching them on the broadcaster's website. Downloading and exchanging big files – say, a feature film or an entire album – will also become fast and commonplace.

To achieve this your PC will be doing a lot more work decoding compressed video on the fly than it's probably used to at the moment. It's at this point when the limitations of older processors, slower hard disks and insufficient amounts of relatively slow memory will suddenly make themselves felt.

If this isn't enough to start people thinking about a new machine, there will be the added incentive of affordable drives capable of burning DVDs. These DVD-R drives are likely to be standard components on mid-level home PCs by the end of next year, much in the way that CD-RW drives are now.

Not only will people be able to buy music online and create their own audio CDs using the CD-RW drive, as many users do already, they will be able to do the same with films and archived TV programmes. The era of do-it-yourself DVD is coming.

Admittedly, the rollout of broadband internet access in the UK has been patchy and hampered by high charges. However, as broadband usage picks up in 2003 the typical cost of a broadband connection (which is already falling) is likely to come down further still. If the predictions prove correct, the days when a 500MHz Celeron PC with 64MB of memory were sufficient for browsing the internet are very much numbered.



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A nose for knowledge

Broadband will also play a greater role in education with the launch of Curriculum Online this academic year. Better links between schools and a rapid increase in static and interactive online content for teachers to use in the preparation and delivery of lessons will encourage schools to keep spending on PCs and exotica like wireless networks. Once parents realise all the material they'll ever need to help their kids with their homework is readily available on Curriculum Online, they will be keen to get in on the action, too, encouraging them to upgrade home PCs.

"Students at home will be able to access and share a far wider range of educational resources, including video lessons, lectures and documentaries. The potential for collaborative projects will also be hugely enhanced," says Evesham's Austin.

Just as digital still cameras have become must-have kit, providing a new use for the home PC as image editor and publisher, so digital camcorders will drive PC usage in the coming year or two. Camcorders are also likely to show up inadequate hardware. To edit video anyone with less than a fast, well-specified Pentium 4 and high-speed FireWire interface will need to upgrade.

A DVD burner would round off the digital camcorder owner's dream machine nicely. Once the video clips are edited and you're happy with the results, what could be more logical than burning them on to DVD so that you can watch them on TV with family and friends?

We should sound a note of caution here. Neither Austin nor Chappell expects a huge surge of growth in the home market and Rebecca Eaton, who heads product marketing at PC maker Systemax, is even more cautious.

Where growth occurs Eaton expects it to be slow and at a steady rate. She feels that smaller businesses, too, are likely to proceed carefully when it comes to IT spending. And although she points to growth in cheaper servers, she isn't expecting a sudden upturn, especially not in PC sales.

Eaton thinks miniature wireless networks might become popular in the home PC market, as it would would be a useful way of linking two or three systems and a printer. There is also traditionally a base of early adopters keen to experiment with new technology. This will help get wireless established, but might not generate much in the way of new PC sales.

Staying a step ahead

According to Intel UK and Ireland director Rick Skett, 2003 is expected to bring a rise in PC sales as corporates refresh their millennium-proof PCs. This is likely to happen despite the increased conservatism in the face of economic uncertainty, says Skett, because companies are beginning to analyse the costs and benefits of IT in a more mature fashion.

Businesses have moved away from a focus on the cost of hardware alone and now know how to measure the productivity improvements from IT investment. Waiting too long before upgrading will make businesses vulnerable to smarter competition, says Skett.

This view is echoed by Cathy Hotka, vice-president of IT at the National Retail Federation in Washington DC. She says US retailers who cut back on IT have noticed the negative impact on their businesses and are now ready to order "hundreds of thousands of Epos [electronic point of sale] systems" – all of which are PC-based.

These systems are used not just to account for payments, but also to track customer purchasing patterns, control inventory replenishment and integrate with suppliers – all seen as smarter ways for retailers, battered by costly price wars, to increase their profits.

Intel's Skett also believes the government recognises the value of business IT investment and will continue to provide tax breaks for purchasing equipment. A parallel investment in the education system is also crucial to support the demand for an IT-literate workforce.

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On the other hand…

There is an argument that says that in the age of the web the PC has had its day and will soon be displaced by handheld wireless devices. But the PC is still the cheapest, most ubiquitous platform for web browsing and, although lower-cost specialised devices may emerge, the PC has the advantage of millions of installed machines worldwide.

Could palmtops be viable web browsers, despite the disadvantages of no keyboard and a tiny low-resolution screen? Add to that the processor and memory requirements of broadband streaming media and the palmtop looks even less attractive.

So, in conclusion, a resumption of demand for PCs at the level of 1999-2000 is out of the question. Yes, profit margins have shrunk, but there are clear and logical arguments for predicting an overall improvement next year and beyond.

Nobody is claiming that all the impetus will come from a single factor. Instead, the question posed to everyone from home users to the largest corporates is essentially this: how much longer can we hang on to pre-millennium technology before we start to lose out? ■