

insight technofile

Digital

t started out in 1918 producing a single model of electric plug. Today, the Matsushita group is high among the world's leading electronics concerns, with 250,000 employees worldwide; 183 subsidiaries in 42 countries, and a vast array of consumer, professional and industrial products sold globally under the Panasonic, National, Technics and Quasar brands.

A NOTABLE RECENT ACHIEVEMENT in the professional television field was Panasonic's complete digital coverage of the Atlanta Olympics with some 200 cameras and 1,200 VTR machines broadcasting to the world from the Games' purpose built International Broadcasting Centre.

As a former television cameraman, the area that interested me most when I visited the huge National Panasonic head office works at Kadoma in the suburbs of Osaka was the manufacture of professional broadcast equipment, the DVCPRO camera in particular. This is a digital ½ inch three CCD camcorder using 8mm tape in very compact cassettes and state-of-the-art technology.

Following the format's inception by agreement with over 50 other companies in 1990, National Panasonic's digital domestic camcorder VJcam was the first on the Japanese home

market in September 1995. The professional DVCPRO products were first available in NTSC versions to broadcasters at the end of 1995. Currently about 800 of the combined cameras/recorders are manufactured monthly on long and very quiet lines in the large dust-free assembly areas on two floors of a three-storey building at Kadoma. About 60 per cent of operations are now fully automated, with few personnel in evidence.

By comparison, domestic VCR production, which does not need such high precision, is now about 90 per cent automated.

Such staff as were there (average age, about 35) were mostly engaged in checking the cameras at each phase of assembly using computer readouts. The DVCPRO assembly line was of a very high precision and in one area three men spaced widely apart for concentration, were checking cameras in both NTSC and PAL versions.

Elsewhere on the production lines, the machine assembly of large panel printed circuit boards (PCBs) was impressive with microprocessor components on a sprocketed paper tape automatically fed in from film-like reels. One PCB being put through its test flashed up 'FAIL' in large red letters. The operator made an adjustment, re-started the test and it went

hat goes up often comes back down. Fireworks, football teams and political careers have all had their moments. Though often short-lived, sometimes they can remain at the centre of attention for longer than imaginable. But what of currencies?

There, it seems things never change. The yen and the Deutschemark always seem to appreciate, the pound and the dollar usually go down. That, at least, is the popular perception. Hence the view that the yen and mark are hard currencies, while the pound and dollar are soft. 'Down' and 'soft' clearly have a bad connotation in this regard.

It seems strange that such cast-iron perceptions have taken hold as currencies can move dramatically, and in very short spaces of time. Currencies can be influenced by all manner of factors – economic, political or short-term speculative attack.

It is better to look over a longer-term horizon of many years to get an idea of the trend. It may seem strange to call a few years, longer-term. After all, as John Maynard Keynes pointed out, "In the long run we are all dead" and most of us hope to live for more than a few years. But in the fast moving world of foreign exchange, I've known traders who consider a week long-term.

TO COMPREHEND THE LONG-TERM PICTURE it is necessary to return to the late sixties. England may then have been world football champions but the pound was already past its sell by date: the dollar was in the ascendancy as the centre-piece of the world currency grid. But there were more dramatic changes to come. In the early seventies, the post-war Bretton Woods system of fixed exchange rates broke down. Currencies then floated freely, although exchange controls and government intervention prevailed throughout the world.

It was then that the upward move of the yen and Mark really began. At the start of 1973 the pound bought 707 yen and one dollar would buy 302 yen and 3.20 DM. How times

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change. Let us focus on the yen, but much of what can be said can also he applied to the Deutsche Mark.

Apart from a temporary blip after the first oil price shock in the early seventies, the Japanese economy sustained a remarkably strong performance until the Bubble burst in 1990. Growth was remorseless, living standards rose sharply and the trade surplus continued to surge.

The rising trade surplus was particularly important in explaining the yen's strength. A regulated domestic economy and a Japanese reluctance to buy foreign goods limited any rise in imports. Meanwhile, the production of high quality manufactured goods boosted exports. In particular the trade surplus with America rose sharply, especially in cars and auto parts.

The combination of America's large trade deficit and Japan's sizeable surplus was the backdrop for the heyday of policy

video

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past the fail point OK the second time. The software for all this was in English.

As is well known in television, whatever electronic instruments may tell you about a camera's performance, the human eye is the severest test of all, so the professional cameras are tested with lenses and pictures on a screen as a final check.

LIKE ALL 'MARK ONE' MODELS, the next versions will be improved by having the input of camera operators and television engineers the world over. Although they would not be drawn about future developments, I did elicit that the next VJcam will be up to DVCPRO standard and the next DVCPRO camcorder will be smaller and lighter. Focusing further ahead, the R&D department is working hard on disc and solid state cameras. The tape and disc free camera is on its way with huge savings not only in consumable materials but also in the storage space currently needed for videotape.

The Kadoma plant also assembles DVCPRO Cart machines which hold up to 180 video cassette tapes. These are basically similar to a juke box and play a preselected choice of tapes via a computer so that commercials and programmes can be run seamlessly together.

National Panasonic had an early coup for its D5 digital system when Britain's Channel Four opted to use it when they moved into their new Horseferry Road building. The channel currently has 61 D5 Studio VTRs and four D5 cart machines to handle all the playout from the station.

More than 80 British television broadcasters, cable, facilities and production companies have now taken delivery of DVCPRO systems. In Edinburgh, Scottish Television has recently replaced its analogue Betacam SP and gone completely over to DVCPRO for news. STV cameraman Clive Wood gave cautious early approval to the camera and appreciates the status information menu in the viewfinder, though he finds the pictures slightly too cool. This will be modified in due course.

On the Isle of Skye freelance cameraman David Burns was shooting a documentary with a DVCPRO camera on the impact of the recent bridge linking it to Kyle of Lochaish. He found the camera very good to use, giving great pictures.

Most recently Panasonic scored points over rival Sony at the National Association of Broadcasters meeting in Las Vegas when it was announced that CBS in the US was to purchase more than 1,400 units of its DVCPRO equipment in an order worth \$24m. □

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co-ordination in the mid-eighties. Then, following the Plaza Accord in September 1985, the US and other major industrialised countries sought to dampen down the dollar, against the yen and Mark. This proved successful and by spring 1987 the Group of Seven decided at the Louvre Accord that the dollar had fallen far enough.

YET TRADE IMBALANCES CONTINUED TO GROW, and the yen appreciated. By the early nineties the yen's appreciation was having a stabilising effect, helping to cure the underlying trade imbalance.

But the foreign exchange markets are notorious for pushing currencies too far and by spring 1995 the yen had clearly become too strong for its own good. Then the dollar only bought 81 yen arid the pound a measly 131. Something had to give. Had the yen stayed at these levels it would have pushed

an already vulnerable Japanese economy into another recession and to the brink of financial collapse.

The yen weakened. And weakened. And weakened. Could the hard currency really have a soft centre after all? Will economists look back to 1995 as the year when the big turnaround came? After all, since then, the Deutsche Mark has also weakened while the dollar and pound have strengthened. In recent years, the Japanese and German economies have gone from being the locomotives to the slow coaches of the industrialised world.

THREE FACTORS HAVE CONTRIBUTED to the yen's recent softness. First, Japanese policy. By 1995 it was clear the yen was too strong for the economy's good. No longer could Japan rely on high productivity. Competitiveness was suffering. Japanese firms were cutting jobs at home and moving production elsewhere. In response, the Bank of Japan intervened aggressively, selling yen, buying dollars. Such was the scale of this action, the Bank of Japan is now the world's largest holder of dollars.

A second factor weakening the yen was that the trade surplus finally started to decline. Third, Japanese investors started to invest more of their savings into overseas markets. Hitherto, their natural caution and the previous health of the Japanese economy encouraged them to keep most of their money at home. That attitude has changed. Against a background of weak growth and low interest rates at home, invest-ors have put money into higher yielding overseas markets. As they invested overseas, the yen weakened and as the yen fell so this encouraged Japanese investors to put more money overseas.

What now? These three factors that have led to a weaker yen in the past two years may now have run their course. The Government seems reluctant to let the yen weaken further;

indeed the Bank of Japan could even intervene to stop it falling. The main reason for this is their belief that the yen has weakened far enough. Japanese manufacturing firms are able to cope with a yen around \(\frac{4}{5}\):\$ 110-115. The last thing the Government wants is currency volatility and so they believe the yen does not have to be as weak as its current \(\frac{4}{5}\):\$ 124.

As a result of the currency's weakening during the last two years, Japan's trade surplus may have stopped falling and could be about to rise. Whereas a strong yen encouraged Japanese firms to 'hollow out', moving production overseas, now a change in economic fundamentals. This means both an improvement in the Japanese economy and a slowdown in the US. This should happen by the second half of the year, allowing the yen to rebound.

But in analysing the yen's immediate prospects it could be costly to ignore the message from the markets in the last few years. The US and UK economies have become competitive. America has leap-frogged everyone else by investing heavily in new technologies and clearly has a competitive edge in this area.

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exporters are in a very competitive position. Already senior American policy makers are voicing concern that higher exports and not strong domestic demand will drive the Japanese economy this year. This suggests that the US administration, like the Japanese Government, is not keen for the yen to weaken

The two key factors for the yen's prospects will be the performance of the Japanese economy and the behaviour of Japanese investors. Both are interlinked. If Spring's tax increase slows the economy, more money may flow out of Japan, weakening the yen, even over the next few months, particularly against the dollar. Against major European currencies, the yen should hold its own. For the yen to strengthen again requires

There are factors in the yen's favour. Higher intra-Asian trade has boosted the attraction of the yen. The moves to deregulate the Japanese economy, and particularly the financial sector, should improve the use of the yen in international transactions. But for the yen to again become a hard currency, with a hard centre, the economy needs to rediscover the strong growth and vitality that were its hallmark through the sixties and seventies. It is a tall order, but it is a case of suck it and see.

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