

GENERAL DECLINE • Optimism levels improving

SLOWING BUT • Investment plans on the turn

ELECTRONIC SECTOR • Order intake less negative

CONTINUES TO • Electronics still in doldrums

SUFFER • Output volumes yet to recover

Dare I even consider that the recession which our industry has been suffering for over a year now may have bottomed out? Judging by the figures in this review, there has been a slowing down in the rate of fall - or put another way we may have seen the worst of the recession.

Against that background, manufacturing engineering companies are still having a very tough time and are working hard to turn things around.

We are hoping that these latest figures are not an illustration of the economists' 'dead cat bounce' which suggests that even a dead cat will bounce when it is dropped from a great height.

However, two things have helped to raise my spirits in recent weeks.

Firstly as I tour the country with our regular series of District Meetings there are some signs of a possible improvement, despite our understanding, as part of our ongoing company support activities at Scottish Engineering, that there will be further fallout in the Scottish manufacturing engineering sector in the months ahead.

Secondly, the enthusiasm and interest shown in engineering as a career by thousands of Scottish schoolchildren who have attended the Scottish Executive Roadshow called 'Make it in Scotland' has been infectious.

Having been involved in the icebreaker sessions at Parkhead in Glasgow and Irvine in Ayrshire I am hopeful that our industry will attract sufficient numbers of well qualified, eager young engineers to ensure the future of the manufacturing engineering industry.

With our European competitors now trading in Euros we will watch with interest over the coming months how this affects our leading engineering companies. It will also be fascinating to hear the Euro views of Jeremy Peat, Chief Economist with Royal Bank of Scotland when he addresses our annual dinner in May.

Before that, Chancellor Gordon Brown will present his April budget and we can only hope that his statement will reflect that he has understood the importance of manufacturing engineering with positive encouragement for this vital part of the economy.

Dr PETER HUGHES, OBE FRENG
Chief Executive
Scottish Engineering



ANNUAL TRENDS

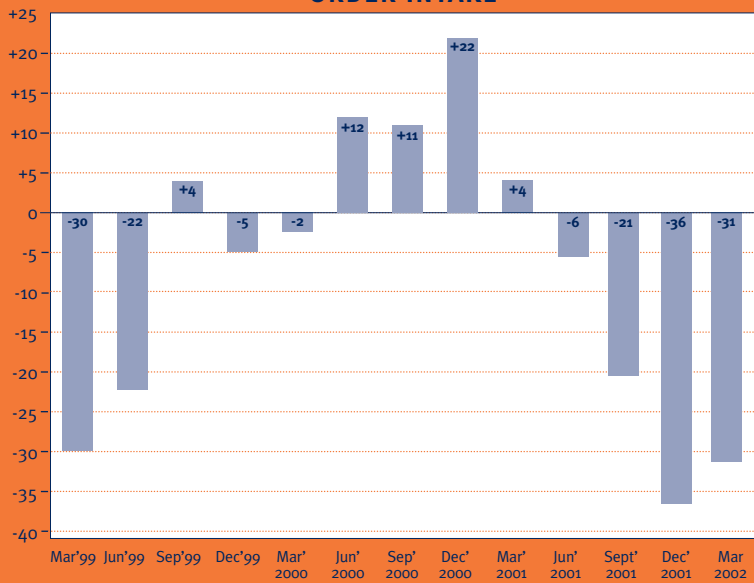
While trends for the last three months remain downwards, there would appear to be a lessening in the rate of fall.

That is not true, however in the electronic sector where the year long negative order intake level has actually fallen further. Orders for electrical goods have also continued to increase their rate of fall.

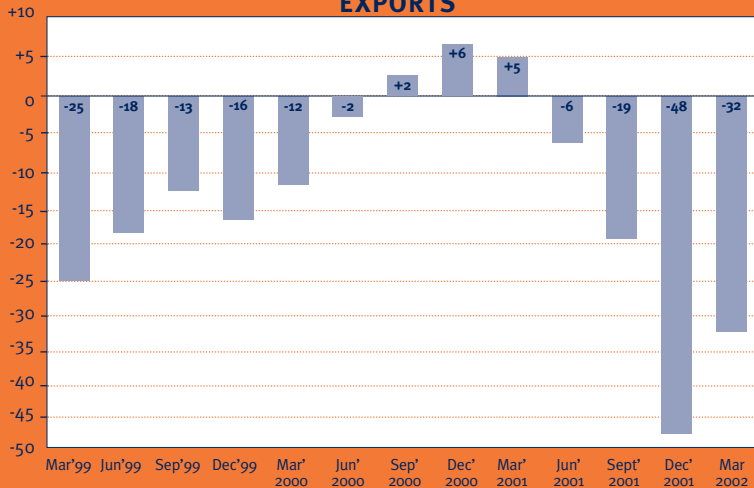
Plans for both capital and training have pulled back from their downward plunge, but training is still recording the third successive negative quarter and capital plans are now into the fifth consecutive negative quarter.

Export orders have improved slightly but are still at their second lowest level since December 1998.

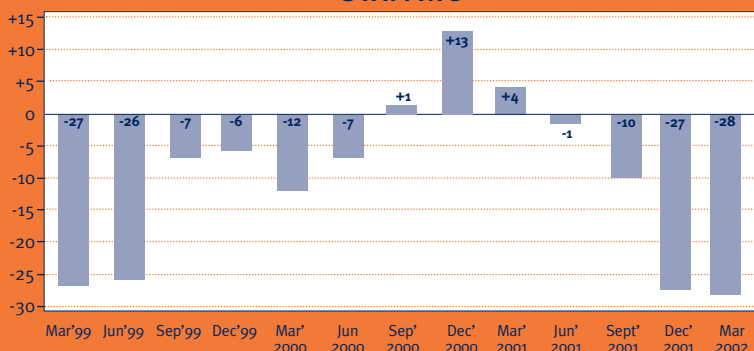
ORDER INTAKE



EXPORTS

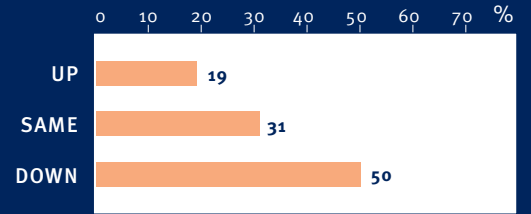


STAFFING

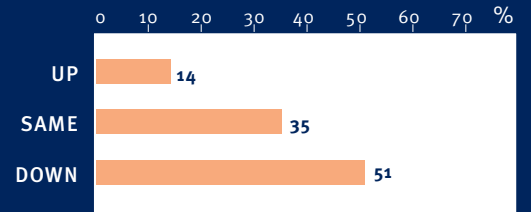


Balance between reports of increases and reports of decreases

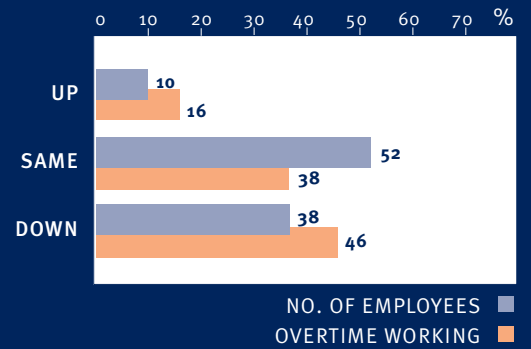
ORDER INTAKE



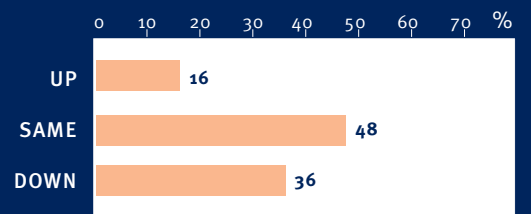
OUTPUT VOLUME



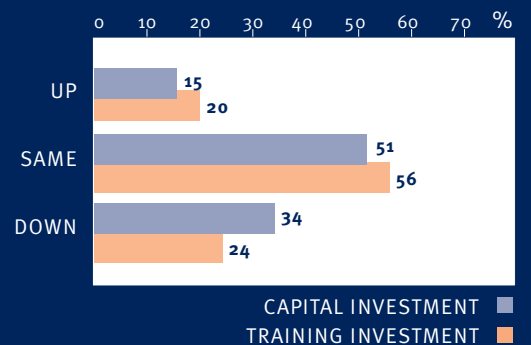
STAFFING



OPTIMISM



INVESTMENT



ORDER INTAKE

Overall the volume of orders is still poor, particularly in the electronics sector and electrical goods.

OUTPUT VOLUME

This area has yet to recover from the poor level of orders experienced throughout last year.

STAFFING

There are no signs of improvement in the numbers employed.

OPTIMISM

There is a turn round anticipated, albeit from a very low base.

INVESTMENT

Investment plans for both training and capital projects are less negative.

Taken on their own, the figures for the three months to March 2002 make depressing reading. But when compared with the two previous quarters it would appear that in general terms the recession which the manufacturing engineering sector has been experiencing may have bottomed out. The only two areas which continue in a downwards direction are the electronic sector and electrical goods. As in previous reviews, the Oil & Gas sector maintains its healthy growth in orders, output and price margins, and non metal products (45%up,37%same,18%down) is the only other sector reporting positive figures.

Orders

The total order level (19%up,31%same,50%down) is still showing a substantial negative differential between the number of companies with increased orders and those with a decrease. Moving inexorably downwards, the electronic sector (8%up,38%same,54%down) and electrical goods (9%up,27%same,64%down) have an affect on most sizes of company, with large companies (11%up,33%same,56%down) showing an increasing negative position and small companies (16%up,35%same,49%down) reporting a little improvement over the previous three months. Machine shops (43%up,14%same,43%down) have shown a dramatic turn round with as many companies reporting an improvement in orders as those falling. Metal manufacturing (11%up,33%same,56%down) maintains a similar position to previous reviews.

UK order levels have fallen further in small companies (14%up,37%same,49%down) and large companies (11%up,33%same,56%down) but have picked up in medium sized companies (26%up,26%same,48%down). The electronic sector (0%up,42%same,58%down) has reported no companies having increased their UK orders in the last three months and electrical goods (9%up,18%same,73%down) show a large downturn.

On the plus side are Oil & Gas (50%up,38%same,12%down) and non metal products (36%up,46%same,18%down).

In the export market only Oil & Gas (50%up,38%same,12%down) is positive. All other sectors and size of company are reporting more companies with decreases than increases. Hardest hit is metal manufacturing (0%up,33%same,67%down) though the electronic sector (9%up,36%same,55%down) is picking up slightly while electrical goods (10%up,40%same,50%down) slump further.

Predictions for the next three months are much healthier with the general level of total orders (26%up,47%same,27%down) and exports (19%up,60%same,21%down) very slightly down and UK orders (26%up,49%same,25%down) actually showing a small positive bias. The electronic sector (50%up,42%same,8%down) is looking at a substantial increase in UK orders and a small increase (36%up,37%same,27%up) in export orders. The Oil & Gas sector is looking at modest increases in UK orders (25%up,63%same,12%down) and a sizeable increase in exports (38%up,62%same,0%down).

Optimism

Generally optimism remains low (16%up,48%same,36%down) but there are two sectors where it is distinctly positive, these being Oil & Gas (38%up,37%same,25%down) and non metal products (36%up,64%same,0%down). Machine shops (29%up,42%same,29%down) report a balance of companies who are more optimistic and those which are not. All other sectors and size of company have negative returns, with electrical goods (0%up,36%same,64%down) the least optimistic and transport (0%up,58%same,42%down) with no positive results from companies.

Investment

Training investment plans across the manufacturing engineering sector remain negative (20%up,56%same,24%down) though medium sized companies (26%up,62%same,12%down), non metal products (27%up,55%same,18%down) and transport (17%up,75%same,8%down) have registered positive responses.

Even the electronic sector (25%up,42%same,33%down) which recognises the need for continuous training is showing a negative balance as is the electrical goods sector (9%up,55%same,36%down).

Capital investment plans, have been pulled back from last quarter's low but are still negative (15%up,51%same,34%down) in general terms. Only the Oil & Gas sector (62%up,38%same,0%down) has a positive balance of all the sectors and size of companies. Particularly negative are large companies (0%up,44%same,56%down), electronics (8%up,50%same,42%down) and electrical goods (9%up,46%same,45%down).

Prices and margins

Prices in both the UK (5%up,67%same,28%down) and the export (3%up,75%same,22%down) markets have maintained their downward levels, both being virtually the same as the previous quarter.

In particular the electronic sector (0%up,62%same,38%down) has no companies which have seen a UK price increase in the last three months, likewise the electrical goods sector (0%up,36%same,64%down). Only the Oil & Gas sector (25%up,75%same,0%down) has seen any upward movement in UK prices.

Export prices showed a similar trend, with only Oil & Gas (29%up,71%same,0%down) companies reporting any increase. The electrical goods sector (0%up,60%same,40%down), large companies (0%up,67%same,33%down) and machine shops (0%up,60%same,40%down) showed the largest negative figures.

UK Sales Margins have not moved in general terms over the last quarter (5%up,53%same,42%down) with margins in the electrical goods sector (0%up,45%same,55%down) mechanical equipment (4%up,44%same,52%down) and machine shops (14%up,29%same,57%down) all continuing to fall.

Export margins, while still maintaining their downward momentum have eased slightly over the last three months (4%up,64%same,32%down). The electronic sector (0%up,67%same,33%down) and electrical goods (0%up,60%same,40%down) while still recording large negative returns, have pulled back some leeway. Oil & Gas maintains positive margins in both UK (25%up,75%same,0%down) and export markets (29%up,71%same,0%down).

Forecasts for movement in the next three months do not predict much improvement with UK margins (4%up,67%same,29%down) and export margins (4%up,72%same,24%down) remaining negative.

Staffing

There has been virtually no movement in the staffing levels for the manufacturing engineering industry (10%up,52%same,38%down) though the massive drop in overtime worked (16%up,38%same,46%down) has eased considerably. By far the largest drop in employees has been in the electronics sector (0%up,38%same,62%down) and large companies (0%up,44%same,56%down).

The forecasts for the next three months show a further easing of staff losses (9%up,66%same,25%down) in general with the electronic sector (15%up,54%same,31%down) pulling back quite considerably.

Capacity

The fall in the utilisation of capacity across the manufacturing engineering sector has eased in the last three months (13%up,45%same,42%down) though very slightly in large companies (0%up,33%same,67%down). Electronics is in fact using less of their capacity (0%up,42%same,58%down) than in the previous quarter.

Total output volumes have actually dropped further (14%up,35%same,51%down) due, no doubt, to the decline in orders over the last two quarters. The electronic sector (0%up,46%same,54%down) and large companies (0%up,44%same,56%down) perfectly reflect the problems affecting the industry.

Far and away the largest reason for companies working below capacity was a lack of orders.

The facts in this Review were acquired by a survey of Scottish Engineering's members and certain other electronic companies and foundries. The membership covers all sectors of the industry. The response rate was 41 per cent of members. Companies are described as: Small (less than 100 employees), Medium (100-500) and Large (over 500).

The Back Page



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According to American professor of history Arthur Herman, it was the Scots who gave the world economic democracy, intellectual property rights and modern institutions, creating the foundation for today's modern USA.

The western world may have benefited from the fruits of the Scottish Enlightenment but has Scotland itself?

Numerous analyses of the Scottish economy have diagnosed with rare precision the weaknesses of the Scottish economy. Low productivity in Scotland is typified by a gap of at least 35% with the USA in output per worker and between 15-25% with Germany and France. A lack of headquarters and businesses with real global reach combine to augment the problems of low rates of innovation and entrepreneurship.

Over-dependence on electronics has been exposed by the global economic downturn. Success in attracting inward investment has not been matched by an ability to embed these businesses into the local economy, making Scotland vulnerable to fast changing global demand.

On inward investment, Scotland has clearly shown that spurts of growth can be engineered bringing in capital and causing the illusion of long term progress. The move from attracting greatly reduced levels of world inward investment to promoting indigenous businesses is long overdue. Switching £20 million from Regional Selective Assistance (RSA) to a venture capital fund is an overly cautious start.

A high level of research and development (R&D) as a percent of output is strongly associated with an innovation-driven, high growth economy. Scotland at 0.62% is less than a third of the American level. There is surely a case for increased tax incentives for R&D expenditure.

Making the breakthrough to become an innovation-driven economy is not simple - that is why the group of core economies remains so small. Yet countries as diverse as Iceland, Ireland, Hong Kong, Korea, Singapore and Taiwan have all achieved a breakthrough in innovative capacity.

The factors that aid the transition to innovation are: sizeable investment in higher education, a good information technology base, high levels of spending on R&D and effective intellectual property laws that promote research and development.

According to Professor Michael Porter of Harvard University, core economies are judged to have become innovators by achieving at least 15

US utility patents granted per year per million population. In the 1980s Ireland was achieving 8.8 but by the year 2000 was achieving 32.4. In contrast, over the period 1986 to 2001, Taiwan achieved an average annual percentage increase in US utility patents of 68%, Ireland achieved 17% with Scotland showing a fall of 3%.

Is Scotland being left behind in innovation? For a country which produced Andrew Carnegie, James Watt and Dolly the sheep, the disconcerting answer appears to be "yes". But this does not reflect a lack of scientific prowess. The rate of knowledge, discovery and publication in Scotland is unquestioned. Of the 1902 invention disclosures reported by UK higher educational institutions (HEIs), nearly a quarter were from Scottish institutions. The issue is how to turn ideas into business and jobs.

Scots lack of entrepreneurial attitudes has been well documented in the Global Entrepreneurship Monitor (GEM) study published recently. The GEM 2001 Report finds that Scotland's "rates of opportunity entrepreneurship are half the levels of the other small modern countries".

Encouraging new business starts should continue as a cornerstone of policy.

Changing attitudes to entrepreneurship will not be achieved overnight but access to equity capital can clearly be improved. At the same time Scotland's economic development network of LECs needs to deliver to a higher proportion of businesses. The industry of economic development in Scotland has prospered but the wider economy has not. While the advantages of local delivery of economic development remains clear to many, the wisdom of many different LEC structures often with duplicating and competing activities seem much harder to justify.

One of the major long-term influences on economic growth and innovation is education. A few centuries ago, Scotland was the best educated country in Europe. However, the Scots "lad o'pairs" is now hard to find. In a recent global analysis, Scots pupils on a combined maths and science score came 27th out of 41 countries/regions. There is obvious room for improvement.

The challenge of improving Scotland's innovation in the broadest sense and catching up with economies like Finland, Iceland and Ireland is a reality. For the country which provided the blueprint for today's richest economies it must also be eminently achievable.

