Scottish Engineering

Quarterly Review

December 2018

Our final Quarterly Report for 2018 perhaps reflects the uncertainty experienced as the terms and conditions under which the UK will leave the EU attempt to be clarified. Orders, exports and staffing show a decline, from which it could easily be deduced that this background is impacting business. Yet overall optimism, investment and future forecast orders – both export and domestic – remain positive.

- Order intake negative after two years positive
- Export follows suit ending seven positive quarters
- Staffing shows swing to negative from earlier this year
- Optimism and forecast outlook buck these trends to remain positive

Skills Snobbery is a Wasted Opportunity

Paul Sheerin
Chief Executive
Scottish Engineering

Welcome to Scottish Engineering's final Quarterly Report for 2018, and as we write, it's the time of year when wish lists are being written, and decisions are to be made on good behaviour or otherwise. With the political shenanigans currently never ending, I fear there will be a lot of coal in the stockings of our elected representatives this December. Those like me who expected clarity on our future relationship with Europe long before now, can surely now with confidence say: definitely next year.

So, while that uncertainty continues, lets return then to the second most popular topic our members have raised this year, skills and labour capacity in general. Last week it was reported that unemployment fell yet again in Scotland to 3.8%, and as evidenced in this report export and domestic orders continue to remain strong at least into the beginning of next year. There is no doubt that the first negative signs of Brexit have been felt by companies losing EU nationals from their workforce as they avoid uncertainty or the effects of weak Sterling and return home. Just to cap this picture, those employees moving from company to company on average can expect to receive 3 times the salary increase of those staying with their current employer. All these factors have placed a squeeze on companies having the labour resource they need, and companies report that difficulties to recruit are not just in skilled roles but extends to operator roles too.

At the risk of sounding unnecessarily downbeat, a further concern occurs to me. Industry 4.0 is here, and companies across the board are now implementing workstreams to make sense of the vast amounts of useful data being collected. Data driven innovation is active and increasing now, and manufacturing and engineering are not the only sectors that need these skills. In fact, the concern is that the growing demand for the people with the necessary skillset to train for these roles will inevitably come from the same 'pot' as we currently have, and that already is not enough to meet demand.

"Industry 4.0 is here, and companies across the board are now implementing workstreams to make sense of the vast amounts of useful data being collected"

The solution must be a bigger 'pot' and one way to do that is changing the way we think about work-based learning, for which the entry point in Scotland is our Foundation Apprentice (FA) programme. Here S5 and S6 pupils undertake a mix of school, college and workplace-based learning, and on completion will hold a qualification equivalent to Higher grade, with a pathway to work, modern or graduate apprenticeship, or Further Higher Education.

So, what's the problem? To put it bluntly, as a society we seem to hold a view that looks down on FA's as the lowest rung of the ladder and are missing an opportunity as a result. FA's give us the ability to engage early and steer young people into Engineering, and crucially allow us to capture the attention of young people where school for whatever reason doesn't click for them but the world of work does. Many of us are or know colleagues who became excellent engineers, with less than stellar school exam results. Right now, modern apprentice and graduate routes leave those future talents behind and that's a dreadful waste that we can't afford. If that doesn't convince you, look outward to Germany, a manufacturing and engineering example of best practice, where in 2015 the calculated share of population starting an apprenticeship was 52%, compared to less than 10% of school leavers in Scotland for the same period. As a final point to underline here, can I add Scottish Engineering's congratulations to 18-year-old Fraser Wallace who this month was named Scotland's Apprentice of the Year. Fraser was one of the first young people in the country to complete a Foundation Apprenticeship with Ayrshire College alongside work placements at aviation experts GE Caledonian, and having already impressed is now enrolled in a Modern Apprenticeship, with no doubt a bright future ahead.

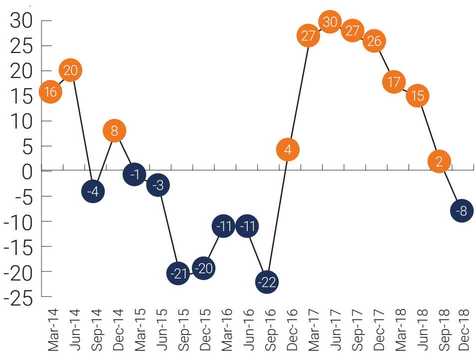
Annual Trends

Order intake has dipped into negative territory, significantly, after 8 consecutive positive quarters, and output volume has continued last quarters falling trend, while still remaining positive.

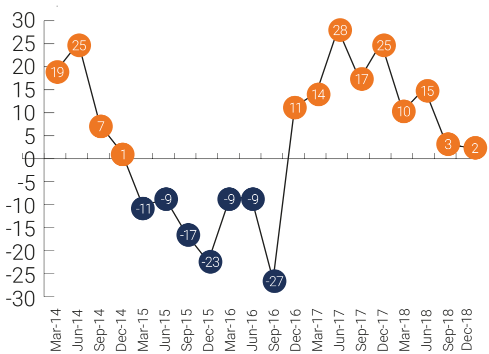
Export levels have also fallen significantly and are now negative after seven consecutive positive quarters.

The improvement in Staffing levels seen last quarter has dipped to a negative level, for the first time since December 2016.

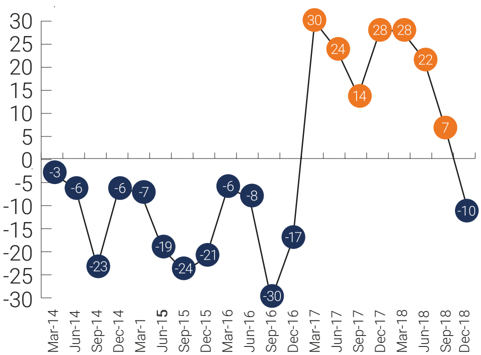
Order intake



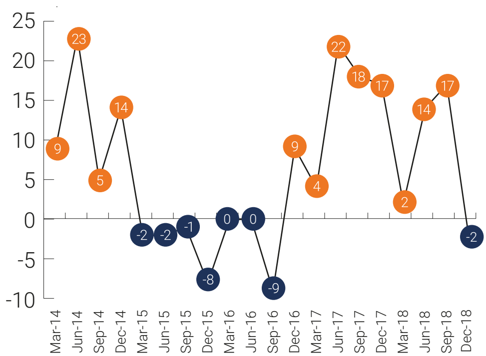
Output volume



Exports



Staffing



UK Orders

27% 43% 30%

	Up	Same	Down
Small companies	27%	36%	37%
Medium companies	29%	54%	17%
Large companies	17%	50%	33%
Machine shops	50%	33%	17%
Mechanical equipment	21%	46%	33%
Metal manufacturing	36%	28%	36%
Non-metal products	60%	0%	40%
Fabricators	30%	60%	10%
Electronics	20%	20%	60%

UK orders in general remain negative, improved slightly compared to the previous quarter. Small companies and large companies are negative, whilst medium companies have moved from a negative to positive position. Within the sectors machine shops, non-metal products and fabricators are all reporting positive returns. Electronics and mechanical equipment show negative order reports.

Export Orders

26% 38% 36%

	Up	Same	Down
Small companies	19%	37%	44%
Medium companies	38%	38%	24%
Large companies	25%	50%	25%
Machine shops	0%	100%	0%
Mechanical equipment	25%	35%	40%
Metal manufacturing	20%	30%	50%
Non-metal products	25%	25%	50%
Fabricators	67%	0%	33%
Electronics	0%	0%	100%

Overall export orders have fallen into negative territory. 44% of small companies are reporting a decrease, whilst large companies show an even balance. However, medium companies are continuing to strengthen their export orders with another positive quarter. In the sectors, only fabricators are positive with mechanical equipment, metal manufacturing, non-metal products and electronics showing a negative return; while machine shops have a similar number of companies reporting increases and decreases.

Optimism

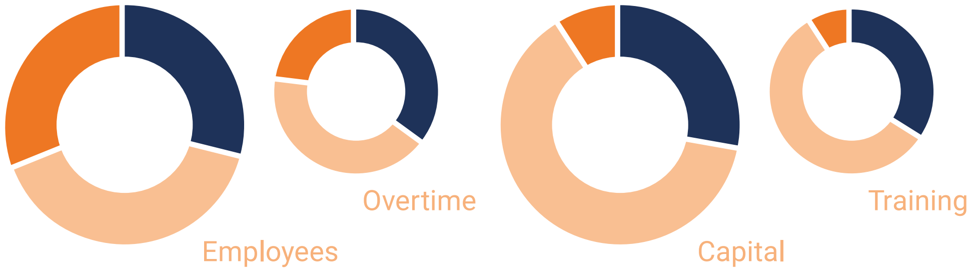
	Up	Same	Down
Optimism	29%	57%	14%
Small companies	29%	53%	18%
Medium companies	27%	65%	8%
Large companies	40%	60%	0%
Machine shops	33%	67%	0%
Mechanical equipment	21%	71%	8%
Metal manufacturing	17%	58%	25%
Non-metal products	0%	67%	33%
Fabricators	40%	30%	30%
Electronics	40%	40%	20%

Output Volume

	Up	Same	Down
Output Volume	33%	36%	31%
Small companies	29%	35%	36%
Medium companies	48%	36%	16%
Large companies	0%	50%	50%
Machine shops	50%	33%	17%
Mechanical equipment	32%	32%	36%
Metal manufacturing	42%	33%	25%
Non-metal products	33%	17%	50%
Fabricators	10%	70%	20%
Electronics	60%	0%	40%

In contrast to actual orders reported, across all areas optimism has improved significantly. This is reflected in companies of all sizes, particularly large companies, where 40% are reporting an increase in optimism. In the various sectors metal manufacturing and non-metal products are negative. On the other hand, machine shops, mechanical equipment, fabricators and electronics are all strongly optimistic.

Output volume in general remains positive, although both small and large companies are reporting negative figures, significantly so for large operations. Medium companies are driving the general result with 48% reporting an increase in output volume. Machine shops, metal manufacturing and electronics remain in positive figures. Mechanical equipment, non-metal products and fabricators remain negative.



Staffing

	Up	Same	Down
	29%	40%	31%

Employees	Up	Same	Down
Small companies	25%	42%	33%
Medium companies	42%	31%	27%
Large companies	0%	67%	33%
Machine shops	33%	67%	0%
Mechanical equipment	28%	28%	44%
Metal manufacturing	33%	34%	33%
Non-metal products	33%	34%	33%
Fabricators	10%	40%	50%
Electronics	20%	60%	20%

Overtime			
Small companies	27%	44%	29%
Medium companies	42%	46%	12%
Large companies	67%	16%	17%

Employees

Across the board, employee numbers have dropped, with only machine shops reporting an increase. Mechanical equipment and fabricators have decreased, whilst metal manufacturing, non-metal products and electronics have equal numbers of companies reporting increases and decreases.

Overtime

35% 42% 23%

Overtime working in general continues in an increasing direction for medium and large companies. Small companies have fallen to a negative position, as have mechanical equipment.

Investment

	Up	Same	Down
	28%	63%	9%

Capital investment	Up	Same	Down
Small companies	28%	59%	13%
Medium companies	28%	68%	4%
Large companies	33%	67%	0%
Machine shops	40%	60%	0%
Mechanical equipment	32%	60%	8%
Metal manufacturing	33%	59%	8%
Non-metal products	17%	66%	17%
Fabricators	0%	70%	30%
Electronics	40%	60%	0%

Training			
Small companies	33%	58%	9%
Medium companies	40%	52%	8%
Large companies	17%	66%	17%

Investment

Capital investment plans have maintained similar positive levels to last quarter. Within the sectors fabricators are negative and non-metal products are even.

Training investment

34% 57% 9%

Training investment plans remain positive at a similar level to last quarter with small and medium companies strongly positive and large companies reporting equal numbers of increases and decreases.

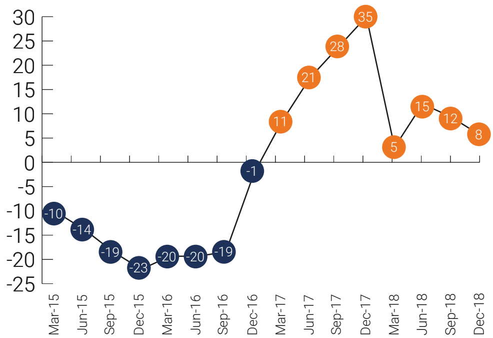
Capacity utilisation

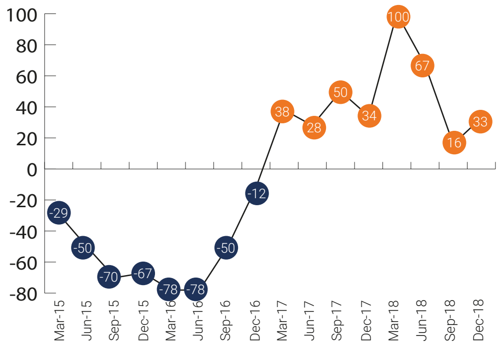
Whilst capacity utilisation remains positive for the eighth consecutive quarter the reduction in rate reflects the fall in order intake and output volume overall.

Machine Shops

Order intake total

Machine shops order intake shows positive for the eighth successive quarter and also significantly more positive that the overall recorded order intake rate.





Forecasts

Forecasts for the next three months appear to be mainly positive. In general, UK orders and export orders are forecast to pick up. Medium companies are forecasting positive figures for all measurements, whilst large companies are expecting to be squeezed on price in all markets.

Within the sectors transport, electronics and machine shops are forecasting that the next quarter will be the same or better than the previous quarter; whilst fabricators and machine shops are forecasting a downturn in UK orders; and metal manufacturing, electronics and fabricators are forecasting a downturn in export orders.

	Up	Same	Down
Orders	35%	45%	20%
UK Orders	27%	55%	18%
Export Orders	27%	55%	18%
Output Volume	32%	47%	21%

Balance of Change %

	Order Intake UK	Orders Export	Prices UK	Prices Export	Output Volume	Employees
Small	0	-6	3	3	5	14
Medium	29	33	25	19	24	19
Large	0	0	-17	-50	0	-33
Metal Manufacturing	-9	-20	9	10	-8	-25
Transport	0	0	25	0	0	25
Electronics	20	25	20	0	20	60
Fabricators	20	-34	-20	0	30	0
Machine Shops	17	25	33	50	0	33
Mechanical Equipment	12	20	0	-11	20	16

The data in this Review were acquired by a survey of Scottish Engineering's members and certain other manufacturing companies.

The response rate was 27% of members. Companies are described as: Small (<100 employees), Medium (100–500) and Large (>500).

Ports Plan For Resilience To Keep Supply Chains Moving

Charles Hammond
Group Chief Executive, Forth Ports Limited

At Forth Ports we have a strategy of investing in supply chain solutions for our customers and we are well-placed to deal with the changing nature of trade and its effect on these supply chains. Over the past few months, I have been regularly speaking to customers and industry organisations about the readiness of UK ports for the changes that Brexit will require. At the time of writing this (November) we don't know what will be agreed as we seek to leave the EU, however what we can be certain of is that, as an island nation, we are always going to have to move goods through our ports.

Currently 95% of all UK trade is handled through the country's ports with 75% of this being handled by the UK major ports of which Forth Ports is a member. At Forth Ports we have not stood still. We have been working with HMRC, Border Force and Chambers of Commerce to ensure our customers understand the changes they need to make to minimise customs delays post Brexit.

As one of the UK's largest port groups, with seven ports in Scotland – including Grangemouth, Leith, Rosyth and Dundee - and London's major port in Tilbury on the Thames, we handle over 40 million tonnes of cargo annually and we are adept at tackling complex business challenges. We are prepared for any outcome when the UK leaves the EU Single Market and Customs Union – deal or no deal.

We have capacity across all our ports, border facilities, Approved Economic Operator accreditation, I.T. systems in place, flexibility in our workforce and decades of expertise working with our supply chains to ensure a smooth service for customers.

Grangemouth is our largest port in Scotland and is a main export hub for the country's biggest exports including chemicals, food & drink, agriculture and the oil and gas sector. The Food & Drink sector is an important and valuable asset and we have expanded our reefer (refrigerated containers) capacity to create an all year round offer for fresh and frozen fish, bakery goods and other produce that require temperature control during transit.

Also in Grangemouth our new multi-million pound ship-to-shore crane is already improving turnaround times at the container terminal by delivering greater service flexibility to the many short-sea routes connecting Scotland to Continental Europe. Grangemouth already trades successfully outside the EU through effective customs systems and will continue to trade with the EU post Brexit.

Across our other ports in Scotland we are investing in a diverse range of activities. In Dundee, we are collaborating with many complementary businesses to create a strong North Sea oil and gas decommissioning hub and offshore wind offer to the marketplace. Our new upgraded quayside is complete and one of the UK's largest fixed quayside cranes has been installed to satisfy both offshore wind and the decommissioning markets.

In Rosyth, we have secured a new long-term contract for the creation of an agricultural hub with Cefetra serving their Scottish market, complementary to their ongoing activities at the Port of Leith. Also in Rosyth, following investment and a successful conversion of the passenger handling facilities at the port, the cruise business has continued to grow with Fred Olsen Cruises home porting one of their vessels for part of the season. In Leith we have concluded the sale of Waterfront Plaza to CALA Homes which will see a substantial residential development completed in phases and there are two further phases of mid-market rental properties being developed in conjunction with Retties and Hart Builders.

Our most important investment at Forth Ports is in our people. It is vital that through excellent Training and Development that we have a skilled workforce for the future. We have this month opened our new Skills and Business Centre in Grangemouth which is a facility being used for our own teams but also for external businesses. For example we are working with CalMac trainees on a Modern Apprenticeship course to create the port operators of the future.

In these uncertain times, it's important that we all don't stand still, but that we adapt now to the changes which are guaranteed to come. I would urge Scottish Engineering members to review their supply chain now to seek the shortest route to market, making any customs changes and renegotiating where required in advance of Brexit. We are actively engaging with our customers, many of whom will be reading this, and the relevant authorities on changes that will be needed post-Brexit but whatever happens, our ports will continue to trade globally.

The views expressed by the guest writer are not necessarily those of Scottish Engineering

Scottish Engineering is the support body for Engineering and Manufacturing in Scotland. We monitor progress in our industry; we offer immediate advice on industrial relations, employment policies and practices, employment tribunal management and health, safety and environment. We raise the awareness of the sector with MSPs, MPs, MEPs and Scotland's civil servants, and strive to promote the STEM education pipeline for the benefit of all industry.

For a full version of our functions go to scottishengineering.org.uk

Scottish Engineering
105 West George Street
Glasgow, G2 1QL

0141 221 3181
scottishengineering.org.uk
consult@scottishengineering.org.uk

@ScotEngineering