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The Manufacturers' Organisation

MANUFACTURING OUTLOOK

2019 QUARTER 4

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FOREWORD

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Charles Dickens' tale *A Christmas Carol* recounts the story of Ebenezer Scrooge, an elderly miser who is visited by the ghost of his former business partner Jacob Marley and the Spirits of Christmas Past, Present, and Yet to Come.

The ghosts tell Scrooge of how his life, once so promising, had gotten into the mess it had, and how much worse it could become in the future if he didn't alter his ways.

In the UK economy the same ternary pattern is evident in the performance of the manufacturing sector this year.

The calendar got off to a very promising start. Output boomed in the first quarter, rising to a peak not seen since the heady days of the 1970s. Orders too were up and stockpiling activities reached the highest level ever recorded in the G7 as anticipation of our original EU exit date of March 29th created an early-year boom. Off the back of this strong performance, wages also increased above the rate of inflation by 2.5% across the manufacturing sector.

But those days now seem so long passed they are almost ghost like and the performance of the present has been much more sedate.

Since the beginning of Q2 and Q3 orders and output have come to an almost complete standstill as those early year stockpiles were wound down. Orders from Europe, the US, and Asia (our 3 biggest export markets) fell as overseas customers postponed or cancelled purchases, choosing instead to await clarity on what our future trade rules will be.

The high degree of uncertainty affected two areas of the manufacturing economy in particular. The first is employment, with job losses and hiring freezes. The second is investment as factories postpone capital spending plans.

To be clear, however, this is not just Brexit. While still growing, economies around the world are slowing down. World trade growth has fallen from an annualised three-month rate of around 4% in 2018 to around 0% since the middle of 2019. Domestic orders have also collapsed as a knock-on effect given the integrated dependence of UK manufacturers on global supply chains.

As we look to the Christmas yet to come, the economic picture remains very sluggish. Growth this year has been the slowest since the Global Financial Crisis, and the Bank of England, the OECD, the IMF, the Centre for Economic Performance at the LSE, and a range of other think tanks and institutes have given ominous warnings about the economy next year.

The UK's floundering productivity performance relative to our European neighbours is in desperate need of a boost, a boost that will only come if, like Scrooge, manufacturers change their ways, loosen their purse strings, and invest more in the sector. That in turn will only be possible if the UK avoids a no deal Brexit.

However, as this edition of *Manufacturing Outlook* shows, export orders have increased slightly this quarter, indicating greater confidence from foreign customers about purchasing UK goods in the months leading up to the holiday period. Investment also partially improved following a series of declines since the start of the year. Manufacturing employment intentions are now stable after four quarters of consecutive declines, while confidence across the industry has increased as concerns about an end of year no deal Brexit fade.

So, much like Dickens' allegory, the economic performance of the manufacturing sector has been forewarned of a portentous future. Yet, as Dickens wrote of his book, "Christmas, and the end of the year, is definitely a time when people try their hardest to begin afresh." Manufacturers will hope that the results from this quarter's survey are a sign that the economy is beginning to grow afresh once more.

HEADLINES

Since 2016, uncertainties about Brexit combined with global trade tensions have reduced GDP by 2.5% relative to where economists believe we would be today had the UK not activated Article 50 of the Treaty on European Union (TEU). For UK manufacturing, 2019 has been a particularly tumultuous year, as the first two quarters saw stockpiling activities upwardly bias performance within the sector. This resulted in headlines that masked the likely dire consequences the sector would face if the UK crashed out of the EU without a deal that supported frictionless trade, access to labour, alignment on regulation, and a lengthy transition period.

positive trend. However, each consecutive quarter appears to bring total orders (the average level of orders from manufacturers whether they export or not) ever closer to zero.

Last quarter saw investment intentions drop into negative territory for the first time since the aftermath of the Brexit referendum in Q3 2016. Investments in new technologies and skills have stalled due to market uncertainties, leading to a growing gap between current levels of investment and the levels required for UK manufacturers to compete on the global stage. Our analysis for Q4 shows that investment improved to 3%.

INDICATOR	BALANCE	CHANGE	
Confidence	5.45	↑	Confidence in the UK economy up since Q3*
Output	11%	↑	Output balance rises due to stockpiling
UK orders	-5%	↑	Domestic orders improved but remain negative
Export orders	10%	↑	Export orders improve as expected
Employment	6%	↔	Recruitment balance unchanged and higher than investment
Investment	3%	↑	Investment intentions weak but no longer negative

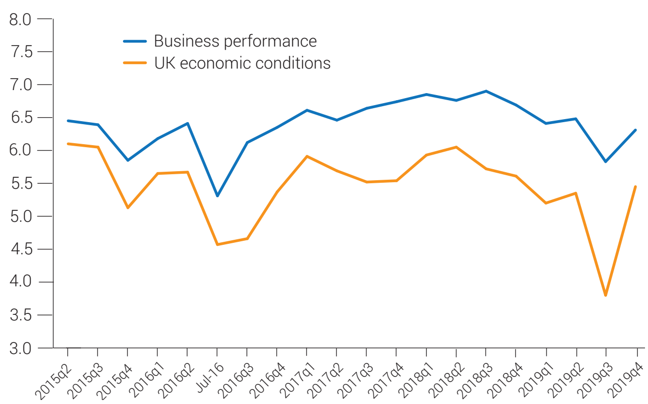
Source: Make UK Manufacturing Outlook Survey

The aftermath of that stockpiling by UK manufacturers, coupled with the anxieties that followed an economic downturn, unmasked the weaknesses of the sector, as new orders fell sharply across the industry. Now, as a result of similar safety stockpiling last seen in Q1 and Q2, output has increased again jumping from 4% to 11% in Q4.

Domestic orders fell into negative territory for the first time last quarter, signalling that the vulnerabilities felt across the international markets were beginning to impact the domestic market too. On average, UK manufacturing firms sit in the middle of global supply chains – importing an input, adding components to it, and then re-exporting those parts to another factory overseas – so any downturn in international markets inevitably impacts UK based manufacturing demand too. In Q4 domestic orders marginally improved but this indicator nevertheless remains in negative territory at -5%. In more optimistic news, export orders increased slightly to 10%, enabling total orders to continue their

Confidence drifting up after no deal scenario avoided

Confidence in the next 12 months 1 = substantially worse, 10 = substantially better



Source: Make UK Manufacturing Outlook Survey

Manufacturing employment intentions remained stable at 6% after four quarters of decline, and hiring short-term contractors continues to be seen as the preferred expenditure option for businesses instead of riskier sunk cost investments in factories and/or machinery.

Domestic prices have improved, whilst export prices declined marginally. However, export orders have also increased, a reflection of the improved confidence of foreign customers in purchasing UK goods in the lead up to Christmas.

Between Q2 and Q3 confidence collapsed to levels not seen since the EU referendum in 2016. However, our latest results present a less pessimistic view from the industry, as confidence in the economy increased substantially as concerns about a pre-Christmas no deal Brexit faded away.

OUTPUT

After the sharp decline in the output balance between Q2 and Q3 (falling from 17% to 4%), this quarter's output balance has been reported at 11%, higher than previously expected. This result emphasises the topsy-turvy effect that Brexit negotiations and trade wars have had on manufacturing performance over the last couple of years.

It must be noted that this quarter's results analyse the final months prior to the October 31st Brexit deadline, where in the same manner as the lead up to the previous Brexit deadlines of March 29th and April 12th this year, we observed a resurgence in last-minute stockpiling activities that artificially raised output. Last March and April manufacturers panic bought in order to mitigate the negative impact that a crash out of the EU would have caused.

with news that Tata Steel is to close one of its plants in Newport, Wales. The latest result for the subsector improved to -29% but is still negative for these reasons. In recent news headlines negotiations between British Steel and the Turkish Army pension fund Ataer dragged on beyond the exclusivity period, resulting in that exclusivity period expiring and the purchase negotiations were thus opened up to alternative bidders. The sale of the company now looks likely to go to the Chinese Real Estate investor Jingye instead. This £70 million deal is yet to be finalised, however, and will be subject to a number of regulatory checks.

Metal Products has piggybacked on the performance of an improved Basic Metals sector and reported an improved balance of 5% this quarter.

PAST THREE MONTHS	↑	11%	NEXT THREE MONTHS	↓	7%

This time, UK manufacturers' behaviour is informed by the news of the recent extension to the Brexit deadline until January 2020, as well as the impending General Election in December 2019. As such, for the next three months they expect a positive, albeit weak outlook, reporting a balance of 7% for the remainder of the year and beginning of 2020.

Our last edition reported negative balances for a number of sectors. Although modest stockpiling restarted in October, it was not as large as the levels experienced previously and is less likely to result in similar repercussions.

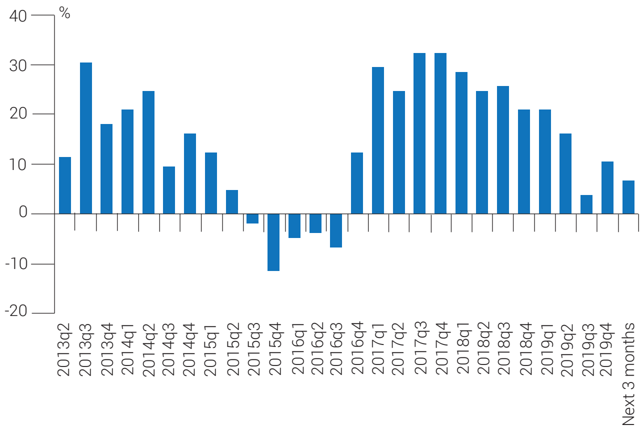
Regardless, Basic Metals was a highly notable feature last quarter, which saw a 71% contraction on balance, due to the challenges faced by British Steel, coupled

Rubber and Plastics experienced a decline in output, reporting a balance of -14% with further contractions expected. Approximately a quarter of the Rubber and Plastics subsector is driven by the tyre market, which declined as a result of a stressed automotive sector.

Meanwhile, increased consumer awareness of the environmental impact of plastics generated by social movements, such as Extinction Rebellion, are pressuring many organisations to consider more sustainable materials. This will have the added impact of increased spending on R&D and innovation in the sector as demand for sustainable materials increases. The combined effects of two declining subsectors does not bode well for the majority of the industry in the short-term, but successful innovations could reverse these trends in the long-term.

Output rose again but is still low

% balance of change in output



Source: Make UK Manufacturing Outlook Survey.

The Electrical and Mechanical Equipment sectors reported an output balance of 31% and 17% respectively, which is far better than in Q3.

Electronics continued to perform well, as demand for automation technologies continues. However, continued uncertainty in the domestic and foreign markets have hampered investment plans for many firms, leading to lower growth in the sector than would have been observed in the absence of that uncertainty. As a result, the output balance was reported at 3%, which is 21% less than what was reported in Q3.

Output summary

% balance of change

SECTOR	PAST 3 MONTHS	NEXT 3 MONTHS
Basic Metals	-29%	-8%
Metal Products	5%	-6%
Mechanical	17%	6%
Electronics	3%	4%
Electrical	31%	44%
Rubber & Plastics	-14%	-19%
TURNOVER		
£0-9m	6%	5%
£10-24m	25%	11%
£25m and over	25%	19%

Source: Make UK Manufacturing Outlook Survey.

ORDERS

Total order balance decreased marginally to 1%, a result that continues to fare far from its peak of 37% in 2017.

Our previous *Manufacturing Outlook* reported a steep deterioration in domestic orders, resulting in a negative balance of 6%. In this edition we see a continuation of this trend in which domestic orders have performed relatively worse than export orders. As mentioned earlier, the difference in performance between domestic and export orders was not due to a resilient international market. Instead, the latter declined also.

UK ORDERS

UK orders improved marginally but remained negative at -5%. This is particularly unusual as under normal economic conditions domestic orders are typically less volatile than export orders. However, recent market uncertainties have scrambled the natural order of the business cycle and as such, UK orders appear to be almost as volatile as export orders.

UK ORDERS	PAST THREE MONTHS	↑	-5%	NEXT THREE MONTHS	↑	1%
EXPORT ORDERS	PAST THREE MONTHS	↑	10%	NEXT THREE MONTHS	↓	5%
TOTAL ORDERS	PAST THREE MONTHS	↓	1%	NEXT THREE MONTHS	↑	6%

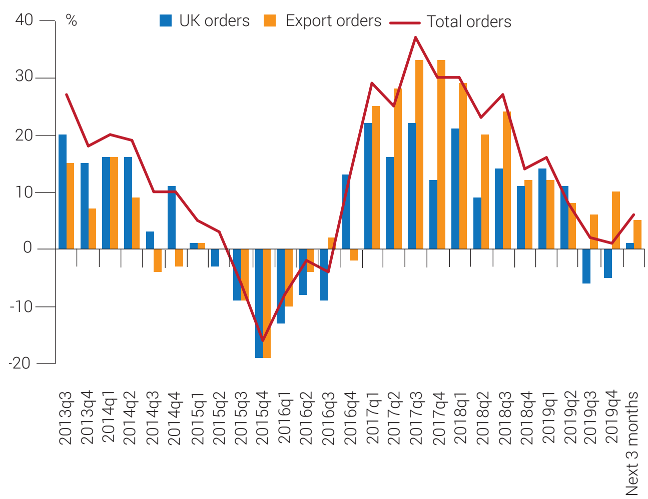
Until last quarter, our surveys highlighted positive, albeit declining, values across all measures of orders since 2016 Q4. Though it is reducing, demand from both the EU and the rest of the world has managed to keep orders in positive territory for now.

Expectations for the next three months are more positive than that of the previous quarter as the prospect of a no deal Brexit has reduced. Nevertheless, rising uncertainties will no doubt continue to stall progress for many UK manufacturers, particularly challenging those working hard to protect foreign relationships within the supply chain.

Survey respondents have previously revealed their expectations that the gap between output and orders will narrow over time, but this was motivated by an expectation that the UK would leave the EU with a deal by the 31st of October. With the news of an extension to that deadline, stockpiling effects have blurred the line between output and orders as many UK manufacturers increased production, in a similar fashion to Q1. As a result, the disparities between output and orders continue to persist in our latest survey results, with the gap now at 10% – a larger percentage than last quarter.

Total balance down but export orders increased

% balance of change in orders



Source: Make UK Manufacturing Outlook Survey.

Following the Q3 results, in Q4 a number of subsectors have reported results that although comparatively better, are still not as good as was hoped. In particular, Basic Metals reported a balance of -21%, as the subsector continues to struggle. As a consequence, Metal Products also reported a negative balance of -13%.

Surprisingly, the Electronics subsector – which had bucked the downward trend seen elsewhere in manufacturing this year – has also now sunk into negative territory. It comes in at -3% this quarter, as investment in new technology begins to slow.

Mechanical Equipment and Rubber & Plastics came in at -9% and -5% respectively, with further contractions expected for the former in the next three months. Electrical Equipment was the only subsector of the top five to report a positive balance in domestic orders.

EXPORT ORDERS

A focus on UK manufacturing's performance on the international stage has always been a key feature of our quarterly *Manufacturing Outlook* reports, as 44% of the total value of all UK exports come from manufactured goods. As history shows, maintaining the strength of our export sector will play a central role in accelerating economic prosperity. In other words, without a sizeable export-oriented manufacturing sector combined with high investment in technology, it will be increasingly challenging to generate sustainable growth in the long-term.

Q4 export orders presented an improved score of 10%, up from the reported 6% balance last quarter. Although this is a positive result, international orders are still far lower than the levels seen between 2017 and 2018. UK manufacturers face a particularly difficult challenge as we are a highly trade dependent country and firms are deeply integrated within the supply chain, and therefore rely more on frictionless trade to maintain business relationships with foreign customers. However, as highlighted in our previous edition, foreign customers are switching away from the UK to new suppliers, as firms attempt to mitigate the costs of uncertainty by building relationships elsewhere.

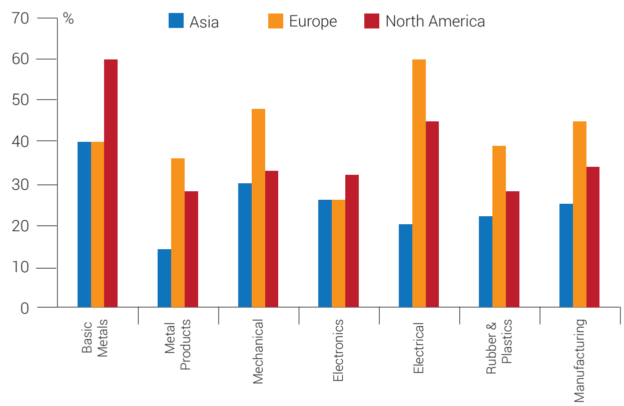
Basic Metals, Mechanical Equipment, Electronics, and Rubber & Plastics all reported negative balances for export orders. In a similar manner to Q3, companies in these sectors have struggled as export partners delayed or, in some cases, even cancelled orders due to domestic uncertainties.

Interestingly, and by contrast, Electrical Equipment and Metal Products reported a very positive balance of 40% and 24%, respectively, this time. Moreover, the majority of these sectors have reported favourable demand conditions from their export markets relative to Q3. This suggests global trade tensions are beginning to ease, particularly as the US and China have recently indicated they are more willing to cooperate and repair their trade relationship.

Predictably, the EU remains top of the list as the most important foreign market for UK manufacturers. The top three is then completed by North America and East Asia, with the Middle East trailing closely behind. Manufacturers expect the EU to continue to be the UK's closest partner for trade, regardless of the outcome of Brexit. However, the value of trade with the rest of the world has been increasing over time, with an average annual growth of exports around 6% between 2016 and 2018.

De-escalating trade tensions eased concerns for international orders

% of companies reporting positive demand conditions by market



Source: Make UK Manufacturing Outlook Survey.

Orders summary

% balance of change

	UK ORDERS		EXPORT ORDERS		TOTAL ORDERS	
SECTOR	PAST 3 MONTHS	NEXT 3 MONTHS	PAST 3 MONTHS	NEXT 3 MONTHS	PAST 3 MONTHS	NEXT 3 MONTHS
Basic Metals	-21%	8%	-15%	-31%	-36%	-7%
Metal Products	-13%	-19%	24%	-15%	9%	-2%
Mechanical	-9%	4%	-3%	16%	-7%	10%
Electronics	-3%	0%	-4%	4%	-13%	7%
Electrical	4%	24%	40%	28%	19%	12%
Rubber & Plastics	-5%	5%	-5%	-30%	-20%	-25%
TURNOVER						
£0-9m	-10%	1%	3%	-1%	-3%	4%
£10-24m	3%	0%	8%	8%	7%	10%
£25m and over	11%	5%	18%	8%	9%	7%

Source: Make UK Manufacturing Outlook Survey.

EMPLOYMENT & INVESTMENT

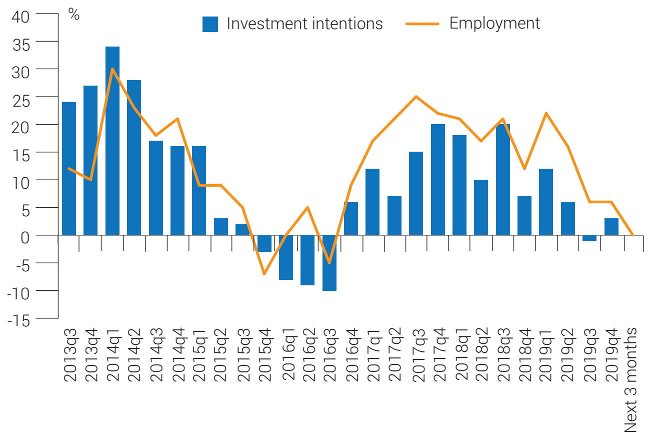
While investment has been very poor throughout 2019, future investment intentions have by-and-large been positive. However, in Q3 we saw, for the first time in eleven quarters, a decline in investment intentions by -1%. Employment intentions were also down but remained in positive territory. This quarter, manufacturers have revised down their employment expectations for the next three months. Investment intentions are now positive at 3%, a slight recovery from the negative investment intentions we saw in Q3.

Contributing to this investment paralysis has been the significant flight of UK equity funds abroad. Over the three months to the end of September, a total of £2.3 billion was withdrawn from UK equity markets. This was the worst quarter in history, according to the Investment Association. Indeed, since the Brexit vote, almost £15 billion has been withdrawn from UK equity funds[1]. Poor economic conditions, compounded by both Brexit uncertainties and political turbulence, have created an unattractive environment for these asset managers to invest. So severe is this capital flight that the UK regulator is now demanding daily updates from asset managers in order to avoid a liquidity crisis.

The latest PMI figures show that job losses have continued for the seventh consecutive month, and the speed at which these jobs are being lost is now at the fastest rate for a decade. The lack of business investment is not solely responsible for these job losses. However, weak demand and hiring freezes due to uncertainty have also contributed to this outcome. Many manufacturers had some form of shutdown this quarter, while others were engaged in expensive stock building activities in preparation for potential no deal shocks to their supply chain. This together with the continued Brexit and now electoral uncertainty means there is no end in sight to the roadblocks industry is facing.

Employment unchanged and investment remains low

% balance of change



Source: Make UK Manufacturing Outlook Survey

EMPLOYMENT	PAST THREE MONTHS	↔	6%	NEXT THREE MONTHS	↓	0%
INVESTMENT	NEXT TWELVE MONTHS	↑	3%			

Employment and investment summary

% balance of change

	EMPLOYMENT		INVESTMENT
SECTOR	**PAST THREE MONTHS**	**NEXT THREE MONTHS**	**NEXT TWELVE MONTHS**
Basic Metals	0%	-14%	7%
Metal Products	-5%	-16%	-2%
Mechanical	10%	16%	-4%
Electronics	10%	-23%	14%
Electrical	28%	19%	21%
Rubber & Plastics	-15%	-16%	0%
TURNOVER			
£0-9m	10%	3%	-2%
£10-24m	3%	-4%	6%
£25m and over	13%	-1%	20%

Source: Make UK Manufacturing Outlook Survey.

When faced with an uncertain outlook, risk-aversion sees firms hold off on unnecessary spending in case the money cannot be easily recouped. This risk-aversion has been seen across the manufacturing sector this year. Employment intentions remain above investment

1 https://www.ftadviser.com/investments/2019/11/07/investors-flee-uk-equities-in-worst-ever-quarter/

intentions due to the reluctance to spend money on factory improvements or new machinery in case it may not be recoverable in a downturn.

Poor levels of investment in the industry come at a time in which spending needs to rise the most. The UK's floundering productivity performance relative to its European neighbours is in desperate need of a boost, a boost that will be nigh-impossible to realise without a significant jump in investment.

Over the past quarter, the subsector that has seen the largest negative balance of change in employment has been that of Non-Metallic Minerals, at -20%. This subsector predominantly deals in intermediate goods for the construction sector such as bricks and mortar, and therefore its performance is closely linked to the construction sector as a whole. Construction activity in the UK is near its lowest recorded levels since the collapse in October 2009 of the property market amidst the Global Financial Crisis. Construction companies have highlighted that clients are deferring embarking on new projects due to the UK's current political and economic uncertainty.

The Electronics subsector has experienced a positive balance of change in employment by 10% in the last quarter, but those in the subsector expect a decline twice as severe, -23%, in the next quarter. However, the international order books that the sector holds afford it more consistency in orders relative to other subsectors. As a result, non-employment related investment intentions in this subsector remain positive at 14%. Investment is particularly important for this highly competitive sector, with a particular focus on automation solutions for the global market.

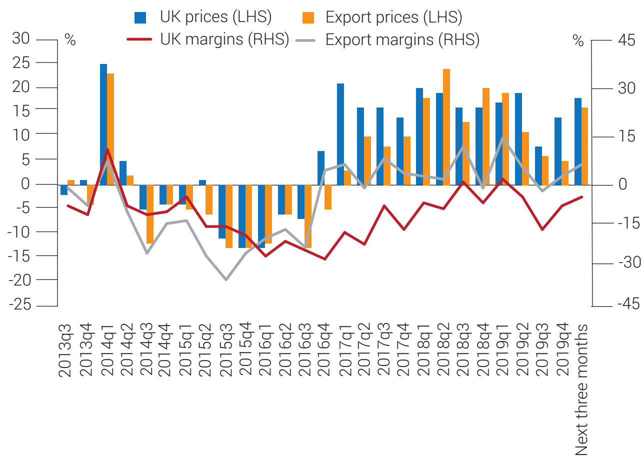
PRICES & MARGINS

Our previous edition saw the biggest quarter-on-quarter decline for both prices and margins since early 2017. Unsurprisingly, this result came on the back of agonising levels of uncertainty that were present prior to the original Brexit deadline of March 29th. For reference, UK prices declined from 19% to 8% between Q2 and Q3, whilst export prices fell from 11% to 6% across the same time period. Margins also sunk further into negative territory as the rising costs of inputs prevented UK manufacturers from substantially benefiting from export-favouring exchange rates.

The latest data reports mixed results as UK prices improved to 14% whilst export prices marginally declined to 5%. These are not entirely positive results as both UK and export prices are still lower than the levels witnessed in early 2017 but they will ease concerns for those UK manufacturers that have recently struggled for consistency in cash-flows.

Domestic prices increased but margins remain squeezed

% balance of change



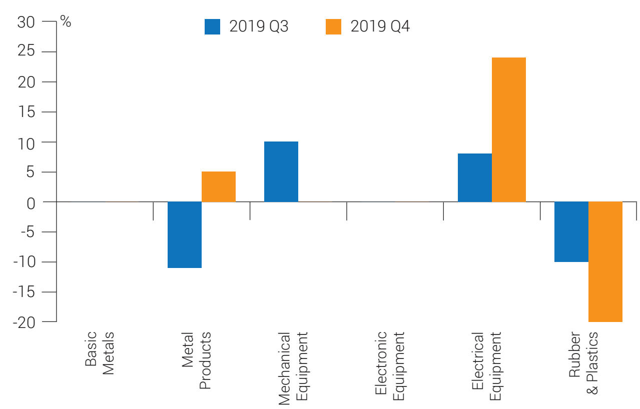
Source: Make UK Manufacturing Outlook Survey

UK PRICES	PAST THREE MONTHS	↑	14%	NEXT THREE MONTHS	↑	18%
EXPORT PRICES	PAST THREE MONTHS	↓	5%	NEXT THREE MONTHS	↑	16%
UK MARGINS	PAST THREE MONTHS	↑	-7%	NEXT THREE MONTHS	↑	-4%
EXPORT MARGINS	PAST THREE MONTHS	↑	3%	NEXT THREE MONTHS	↑	7%

Manufacturers' expectations are more positive for the next quarter as concerns about a potential crash out of the EU are now less immediate, though not necessarily eliminated. However, the divergence between UK prices and margins is still wide, whilst the gap between export prices and margins have in fact narrowed. For the latter this is due to a slow recovery in the value of Sterling which resulted in a reduction in the cost of inputs and allowed manufacturers to benefit from improved margins. For example, in order to protect foreign relationships within the supply chain, some UK manufacturers have, despite their costs going up, refrained from increasing prices and instead offered discounts in an attempt to retain essential foreign customers. In addition, a tight domestic labour market has continued to push wages up. They increased by 2.7% between June and September 2019. This is, however, in contrast to an increase of 3.6% in average earnings across the whole economy, in the same period.

Another mixed bag of results for exporters

% balance of change in export prices in the past three months



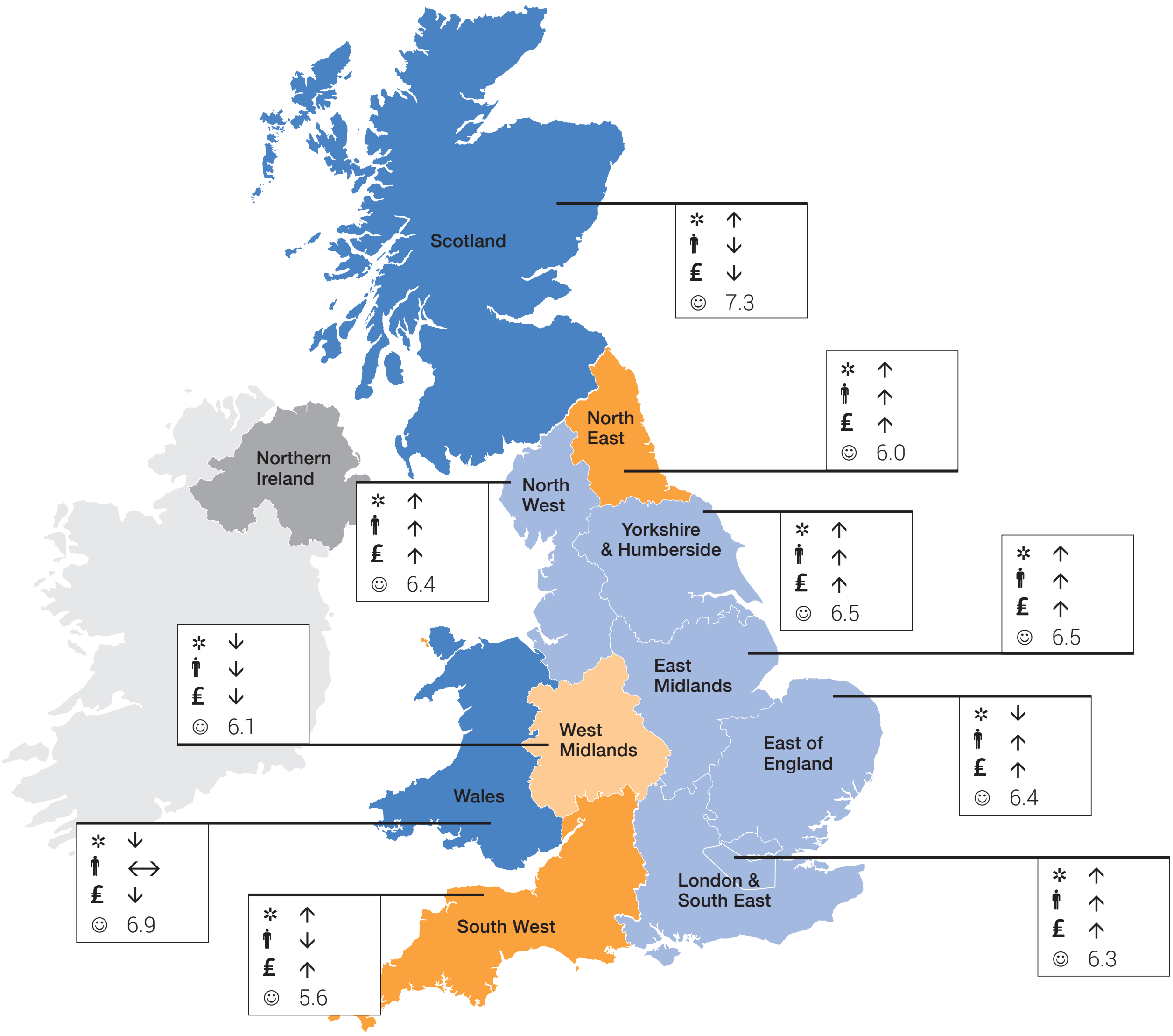
Source: Make UK Manufacturing Outlook Survey

As an additional note, in the last three months the Brent Price returned to its normal volatile nature, following a brief upswing that saw oil prices increase by 20% overnight in the aftermath of attacks on Saudi Oil refineries. Excluding this brief, extraordinary period, the Brent price has varied between $55 and $65 per barrel since early September 2019. However, members of OPEC are expected to meet in December to discuss possible oil production cuts. These developments must be observed closely over the next few months, given how statistically correlated the performance of UK manufacturing and oil prices are.

The UK has observed the effective exchange rate depreciate by approximately 25% in the years since the Global Financial Crisis. However, in recent times the value of Sterling has developed a more chaotic nature due to political and economic turbulence, such as the call for a General Election which saw Sterling fall marginally against the Euro and Dollar. Additionally, November saw an unexpected surprise from the Bank of England's Monetary Policy Committee (MPC) when two of its nine members voted to cut interest rates, resulting in another temporary devaluation. Events like these increase concerns for UK manufacturers – for both importers and exporters of raw materials – as the volatility of the GBP makes the domestic currency increasingly unreliable.

REGIONAL

In the past quarter, the majority of the UK experienced an increase in business confidence. This is a welcome improvement from the previous quarter's steep decline. Furthermore, the confidence distribution this quarter is a much tighter spread, implying that businesses across the UK have more homogenous levels of confidence, regardless of the regions that they are based in. Manufacturers from most regions have experienced positive changes in the balance of employment, but, somewhat ominously, they foresee a contraction in employment in the next three months.



KEY:

↑/↓ INCREASE/DECREASE ON PREVIOUS QUARTER
✲ OUTPUT
👤 EMPLOYMENT
£ INVESTMENT
☺ BUSINESS CONFIDENCE

The map is coloured according to business confidence levels

Source: Make UK Manufacturing Outlook Survey

The **East Midlands** has a higher percentage of individuals employed in the manufacturing sector than any other region in the UK, with 12.8% of the population in the industry. This is a significant difference from the UK average of 8.7%, demonstrating how integral the manufacturing sector is to the region. Manufacturing salaries in the East Midlands are 22.7% higher than the average salary in the region's other occupations. Output has been positive over the past three months, and businesses expect continued positive output growth over the coming three months. Orders, on the other hand, have seen a marginal decline, and this decline is expected to continue to accelerate downwards over the next few months.

The **East of England** is responsible for £17.8 billion of manufacturing output and employs 244,000 people in the industry. Manufacturing salaries here are 24.7% higher than the average, and the sector accounts for a disproportionately large 12% of the entire region's output. Similar to many UK manufacturers, the East of England's manufacturing sector has seen output expand, with a positive outlook for future output. Orders here have grown too.

In the **North East**, although manufacturing jobs account for 10.7% of the entire region's employment, it is the second smallest region in terms of manufacturing output with just £8.0 billion generated compared to the UK average of £16.7 billion. Business confidence in the region is the second lowest in the UK this quarter, despite the fact that there has been a positive balance of change in orders and they were the best performer for output on balance. Expectations for future output remain unchanged, but a slight growth in orders is expected.

The **North West** is the UK's biggest manufacturing region in terms of output, with £28.5 billion generated. It also has the highest average manufacturing salaries relative to the regional average salary, with manufacturing jobs earning a whopping 30% more than the services and other sectors' average pay in the region. Manufacturing in the North West has been aided by the recent Made Smarter initiative that seeks to assist businesses in the region with the adoption of new technologies to improve their overall productivity. Manufacturers' business confidence and UK economy confidence are above average here, and an expansion in output over the past 3 months is also reported, leading to the expectation that this positive trend will continue in the short term. Orders have also seen an expansion over this same period, although they are expected to contract by a similar amount over the coming 3 months.

The **South East** and **London** region remains a close second in terms of total manufacturing output by region, with £28.1 billion generated. It is a common misconception that there is little manufacturing activity in the capital but, while it is true that relative output for the region is small compared to other sectors locally – largely due to an extremely dense concentration of financial services in London, it is still a key area for UK manufacturing. This quarter the region is reporting some of the most positive numbers in the UK for output, the highest for orders and employment, and expectations for the coming three months are also some of the highest. Business confidence from manufacturers in this region is also amongst the highest observed this quarter.

With regards to manufacturing indicator results, the **South West** is planted in the middle. With an output valued at £14.3 billion, representing 11.2% of the region's output, the figures indicate that manufacturing remains important to the region's economy. However, it comes just behind the North West when looking at the difference between the regions' manufacturing salary and average salary. With manufacturing jobs here paid 28.2% higher than the average North West salary, industry jobs in the South West represent high-value employment. Manufacturers' view on business confidence this quarter is the lowest out of any UK region. This may be related to the fact that although output has shown a positive trend, orders have been negative.

The **West Midlands** is the third largest region for manufacturing in terms of output, with £21.7 billion generated. It also happens to be the third largest region for the employment of manufacturers in the UK, employing approximately 317,000 people in the industry. The largest manufacturing subsector within the region is Other Transport, accounting for just over a third of the region's entire manufacturing activities. Figures for both business confidence and UK economy confidence fell below the average, standing at the third lowest and fourth lowest respectively. More concerning, however, is the negative balance of change observed across the board. For output, orders and employment, manufacturers reported a decline, and they expect the decline to continue across all three of these measures in the next quarter too.

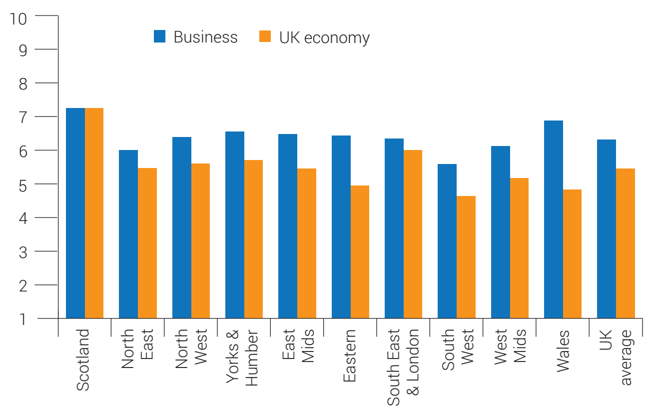
In **Yorkshire & Humber**, the manufacturing sector generates £17.6 billion in output which is 15.3% of the region's total output. As is the case in all regions excluding London, the manufacturing salary here is higher than the regional average, in this case by 19.1%. Manufacturers in Yorkshire & Humber reported the second highest confidence in the UK economy relative to the other regions. This quarter, changes in output and orders have both been positive. Additionally, the balance of change in employment was the second highest figure here. An optimistic view has also been taken for the next quarter, with these measures expected to increase in the next 3 months also.

In **Scotland**, manufacturing accounts for £14.4 billion of output, representing 10.5% of total regional value. Excluding London, manufacturing salaries here are the lowest compared to the nation's average, standing at only 13% higher than the average. Manufacturers in Scotland have turned in the highest numbers for both business confidence and UK economy confidence, although it should be noted that this result is due to the weight of certain large companies which have had a particularly successful quarter, and is not necessarily representative of the broad spectrum of Scottish manufacturing businesses. Output saw a positive balance of 13%, up from -4% last quarter, whilst orders declined although there is optimism that orders will increase in the next quarter. This gap between orders and output indicate that the level of stockpiling here is higher than in the rest of the UK.

Wales has a relatively low manufacturing output at just £10.9 billion, although it does represent a high proportion of total Welsh output at 17.5%. It also has one of the lowest absolute numbers of people employed in manufacturing in the UK, with a total of 151,000. Welsh manufacturers have indicated a business confidence level significantly higher than the UK average, but their confidence in the economy as a whole is the second lowest in the UK. Output for this quarter saw a positive change, and expectations for the next quarter are also positive. Orders were positive this quarter but a decline is expected in the next. Welsh manufacturing businesses reported unchanged employment in this period but expect a decline in the next 3 months.

Firm level confidence slightly up from last quarter

Confidence in the next 12 months 1 = substantially worse, 10 = substantially better



Source: Make UK Manufacturing Outlook Survey.

Regional summary

% balance of change

	OUTPUT		TOTAL ORDERS		EMPLOYMENT	
REGION	PAST 3 MONTHS	NEXT 3 MONTHS	PAST 3 MONTHS	NEXT 3 MONTHS	PAST 3 MONTHS	NEXT 3 MONTHS
Scotland	13%	8%	-10%	12%	6%	10%
North East	27%	0%	13%	7%	7%	-14%
North West	16%	17%	12%	-12%	4%	-13%
Yorks & Humber	20%	6%	9%	26%	23%	6%
East Mids	16%	11%	-3%	-7%	13%	-10%
Eastern	9%	0%	18%	-5%	14%	0%
South East & London	26%	25%	21%	23%	26%	9%
South West	15%	22%	-11%	21%	5%	-10%
West Mids	-11%	-6%	-14%	-21%	-16%	-19%
Wales	10%	25%	11%	-22%	0%	-11%

Source: Make UK Manufacturing Outlook Survey

ECONOMIC ENVIRONMENT

Uncertainties about the outcome of Brexit, the future of the UK economy, and now the impending general election continue to weigh on the UK manufacturing sector.

As a result, the headline seasonally adjusted Purchasing Managers' Index (PMI) rose to 49.6 in October, up for the second successive month but remaining below the neutral 50.0 mark separating expansion from contraction.

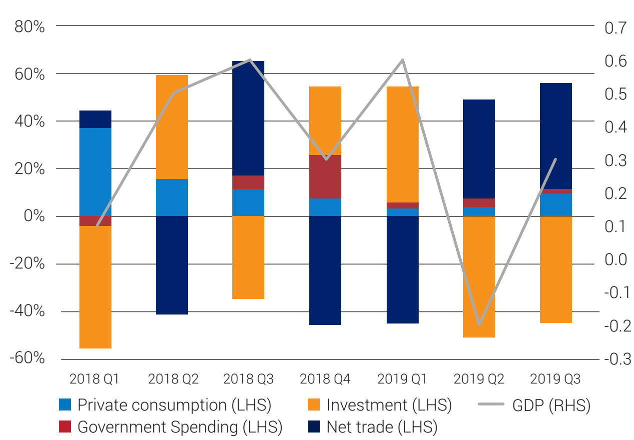
Firms are reporting weaker business activity overall, especially from the domestic UK market. Consequently, the industry has suffered job losses for the last seven consecutive months, with the rate of decline now among the steepest of the past decade.

Lower employment in the sector reflects weakening demand, lower client confidence, and is further borne out of a lack of replacement of leavers and growing staff redundancies. Make UK has this year recorded the highest level of hiring and pay freezes for the manufacturing sector on record.

Unsurprisingly, therefore, the UK economy has grown at the slowest annual rate in almost a decade, according to the most recent official results. Office for National Statistics (ONS) figures show that year-on-year growth is just 1%.

UK avoids recession in Q3 due to a positive net trade

Contribution to real GDP q on q growth



Source: ONS

A number of firms revisited their Brexit preparations this quarter, leading to higher levels of input purchasing and a build-up of safety stocks. A renewed stockpiling boost failed to materialise in the third quarter but, the October Brexit deadline meant that this year's second bout of ultimately unneeded no deal Brexit preparations spilled over into our fourth quarter survey results.

Growth in inventories of finished goods and purchases were at a six-month high by the time the latest EU exit date was postponed but they remained below the survey-record rates reached during the first quarter this year, when emergency stockpiling activities reached the highest level ever recorded in the G7. That said, the boost was enough to ensure that the UK economy avoided a recession by growing 0.3% in the third quarter. It had shrunk in the second quarter when Brexit stockpiles were unwound after the first Brexit date of March 29th. Two quarters of contraction would have signalled a recession. However, while it has held steady, the manufacturing sector failed to grow overall, as boosts in some industries such as Rubber & Plastics were balanced out by falls in other subsectors such as Chemicals.

As it is, the Institute for Fiscal Studies (IFS) warned recently that because of the Brexit vote, GDP is roughly 2.5–3.0% (£55–£66 billion) below where it would otherwise have been[2]. The National Institute of Economic and Social Research (NIESR) has found that Boris Johnson's Brexit deal will leave UK GDP 3.5% (£70 billion) worse off in 10 years' time than compared to continued EU membership. NIESR's report also found that the new Brexit deal would be slightly worse for the economy than Theresa May's deal of last year -her deal would have reduced the size of the economy by 3% over the same period[3]. Unsurprisingly, therefore, according to the latest estimates from the Organisation for Economic Cooperation and Development (OECD) the UK's GDP growth rate will slip to 1% next year even if a no deal Brexit is avoided[4].

2 https://www.ifs.org.uk/uploads/GB2019-Chapter-2-Recent-trends-to-the-UK-economy.pdf
3 https://www.niesr.ac.uk/sites/default/files/UK%20Economy%20Press%20Release%20-NIER%20No250%20November%20-%20Embargoed%20till%2000.01%20Wednesday%2030%20October.pdf
4 https://www.theguardian.com/business/2019/nov/21/tories-no-deal-brexit-plans-damage-uk-economy-oecd-eu

Although it is a relief that a formal recession has been avoided, the economic picture remains sluggish as GDP is forecast to be 1.4% for 2020. Indeed, growth this year has been the slowest since the peak of the Global Financial Crisis and labour productivity (output per hour) fell by 0.5% this quarter when compared to the same period last year, marking the fifth consecutive quarter of worsening productivity.

On a positive note, price pressures remain relatively contained for manufacturers. Input prices were left unchanged in October, the first time they failed to rise, month-on-month, since before the Brexit referendum. Output charge inflation was also among the weakest registered over a similar period.

However, costs elsewhere could soon creep up. More than 210,000 UK workers will enjoy a Christmas pay bump if their employer is a member of the Living Wage Foundation's voluntary living wage campaign. The 6,000 businesses nationally who have signed up to the voluntary scheme will lift their UK hourly rate by 30p to £9.30. People working in London will see their minimum hourly pay rise by 20p to £10.75.

The compulsory National Living Wage (£8.21 an hour in April 2019) is the legally binding rate for workers aged 25 and over. It is reviewed every year just like the National Minimum Wage (for under 25s).

With a general election on the horizon, the Conservative Party has promised to increase the National Living Wage to £10.40 by 2024 and to lower the minimum age one needs to be to receive it to 21. Labour says it would immediately lift the hourly rate to £10 for everyone aged 16 and over.

Added to this, according to the Resolution Foundation, Government spending is likely to hit 1970s levels over the next parliament no matter which party wins the election. Given current economic difficulties – combined with the growing cost of an ageing population – both parties would need to increase taxes and borrowing to pay for their plans, and businesses and their employees will have to foot the bill[5].

Following the postponement of the UK's EU departure, firms saw a mild improvement in business confidence recently, although the degree of optimism remains among the lowest since PMI future expectations data were first collected in July 2012. The economy has been in stop-start mode all year, with periodic growth punctuated by the repeatedly postponed Brexit deadlines. Going forward, ongoing political, economic and trade uncertainties will continue to heavily influence manufacturers' commercial behaviour.

The result has been three years of damaged business investment since the Brexit referendum, but a slowing Eurozone and a global economy reeling from trade wars are taking their toll too. This is the third year in a row that the World Trade Organisation (WTO) has lowered its forecasts for trade growth[6].

This time last year central banks were poised to tighten monetary controls. Instead, faced with a gathering global slowdown several central banks have U-turned, switching from tightening to easing monetary policy.

As expected, in October the Federal Reserve cut interest rates, hoping to shield the United States from the impact of slowing growth after its economy fell back in the third quarter to a rate of 1.9%. The move, the Fed's third cut in three meetings – having only previously cut rates once in the last decade – saw the US central bank lower the target for its benchmark rate by a quarter of a point, to a range of 1.5% to 1.75%. President Donald Trump has sought to blame the Fed for economic slowdown and has repeatedly criticised its Open Markets Committee, which sets the rates, for cutting rates too slowly. Despite these cuts however, manufacturing and business investment in the United States continue to fall, as firms grapple with uncertainty generated by the US-China tariff war and other trade disputes.

Rate cuts and central bank asset purchases aim to reduce the cost, and increase the supply of credit in order to bolster growth. Cutting rates helps fuel economic activity, by making it cheaper to borrow money for both businesses and consumers. However, with interest rates in the US already low by historical standards – and ongoing economic uncertainty caused by America's trade war with China – some analysts question whether rate cuts will help.

5 https://www.resolutionfoundation.org/app/uploads/2019/11/Rewriting-the-rules-1.pdf

6 https://www.wto.org/english/news_e/pres19_e/pr840_e.htm

On a similar theme, Eurozone inflation is running at just 1% while the 19 country monetary bloc faces significant headwinds from the US-China trade war, Brexit uncertainty, and signs that the German economy – the continent's largest – is heading for recession.

The European Central Bank announced on September 12th (coincidentally the 11th anniversary of the Lehman Brothers collapse) that it has restarted Quantitative Easing measures and has cut its bank deposit rate to an all-time low of -0.5% in a bid to stimulate the Eurozone economy. The money is expected to percolate through to the real economy starting in November, after which the ECB plans to inject €20 billion every month thereafter "for as long as necessary".

Former IMF Chairwoman Christine Lagarde took over as head of the ECB on November 1st (her experience dealing with financial crises is perhaps a sign of the ECB's economic expectations for her term in office) and immediately called for Germany and the Netherlands to increase government investment to stimulate Eurozone growth. Yet, despite the pessimism, investment by businesses (capital spending) in the Eurozone economy has this year hit highs not seen in well over a decade (albeit this has been predominantly services led as the EU's manufacturing sector remains in the doldrums). The French economy also posted better than expected growth of 0.3% in the third quarter, boosted by domestic consumption and robust services sector activity.

At home, the decision on who will be the new governor of the Bank of England has been delayed until after the December General Election.

Meanwhile, the prospect of weaker growth is likely to make banks more reluctant to lend, and the private sector more wary of borrowing. The Bank of England's regular survey of banks shows that UK lenders are increasingly concerned about the business outlook. As a result many have started to cut back lending to corporates and corporate bankruptcies in both the US and UK are starting to nudge up.

Further afield, Hong Kong has been crippled by widespread and increasingly violent demonstrations since June. This has negatively affected the city's many small and medium-sized businesses. The region is now in technical recession and its largest lender, HSBC, has reported its third-quarter pre-tax profits fell 18% year-on-year off the back of the ongoing civil unrest. Added to this, the mainland China economy is on track to record its lowest growth rate in almost 30 years, although Chinese manufacturing activity expanded at its fastest rate in nearly three years this October – despite continued trade tensions with the US.

In Latin America, the Argentinian Central Bank has instigated currency controls in an effort to stabilise the Peso since the election of centre-left candidate Alberto Fernández as President. Mr Fernández has vowed to play things safe financially, but some voters fear that under his administration Argentina could return to the populist policies that helped push the country into a cycle of economic turmoil that lasted from the late 1990s until recently.

Meanwhile, in the Middle East, Saudi Arabia's Crown Prince Mohammad bin Salman has said that Iranian drone strikes in September on two oil facilities run by the state-owned company Aramco could send oil prices jumping. Two Saudi oil facilities were hit, temporarily disrupting 5% of the world's total supply and sending oil prices up 20%. The impact of the strikes on the world's biggest oil producing company shows the vulnerability of Aramco's infrastructure. The news raises concerns that escalating tensions in the region could pose a broader risk, potentially threatening the 30% of the world's oil supply that comes via the Strait of Hormuz.

On a similar theme, India's state-owned Nuclear Power Corporation (NPCIL) has blamed North Korea for a cyber-attack on its newest nuclear power generator, the Kudankulam nuclear power plant. The attack underlines the threat cyber-security risks pose to commercial businesses and critical infrastructure in one of the world's biggest and fastest growing economies. The attack mirrored a similar operation against a Saudi Arabian petrochemical plant in 2017, which was blamed on Russia.

Closer to home, British manufacturers of products ranging from Scotch whisky, to biscuits, and Savile Row suits are braced for a significant financial hit after the US was given the go-ahead to impose tariffs of $7.5 billion (£6.1 billion) on goods it imports from the EU. These tariffs are separate to the Trump administration's 25% steel and 10% aluminium tariffs imposed on goods imported into the US, including UK produced metals. The World Trade Organization (WTO) ruling means tariffs ranging from 10-25% have been imposed on goods including UK produced aircraft parts, cheese, and handbags since 18 October. It is the latest chapter in a 15-year battle between the European aerospace champion Airbus, and American rival Boeing. The tariffs mean that small British manufacturers with little interest in the rivalry between two of the world's largest companies have been caught up in the dispute. The two sides are waiting for the WTO to decide on what tariffs the EU can impose in retaliation. In the meantime, the European Commission, which has proposed tariffs on $20 billion (£15 billion) of US goods, said it hopes to reach a settlement.

UK Economic forecasts

% change except where stated

	2018	2019	2020
TRADING ENVIRONMENT			
Exchange rate (€/£)	1.13	1.14	1.21
Exchange rate ($/£)	1.34	1.27	1.33
Exports	0.2	-1.1	0.3
Imports	0.8	2.7	-1.3
Current account (% GDP)	-4.3	-4.3	-3.2
OUTPUT			
Manufacturing	0.9	0.1	0.3
GDP	1.4	1.3	1.4
COSTS AND PRICES			
Average earnings	2.9	2.6	2.9
Oil price (Brent Oil $/bl)	71.1	63.5	57.9
EMPLOYMENT			
Manufacturing (000s)	2,507	2,722	2,657
Rest of economy (000s)	35,091	35,567	35,700
Unemployment rate (%)	4.1	3.8	3.8

Sources: Oxford Economics and Make UK

International Economic forecasts

% change

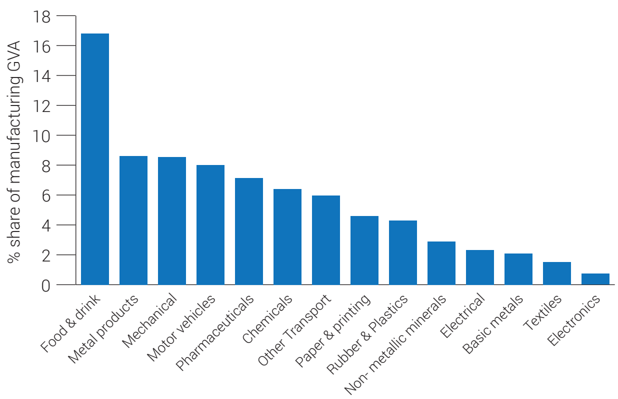
	GDP			INFLATION		
	2018	2019	2020	2018	2019	2020
US	2.9	2.3	1.6	2.4	1.7	1.8
Eurozone	1.9	1.2	1.0	1.8	1.2	1.2
France	1.7	1.3	1.2	1.9	1.1	1.1
Germany	1.5	0.6	1.2	1.7	1.4	1.4
Japan	0.8	0.8	0.1	1.0	0.6	0.8
China	6.6	6.1	5.7	2.1	2.8	3.2
India	7.4	5.5	6.6	3.9	3.1	3.8
World (2015 PPPs)	3.6	2.9	3.1	3.2	3.2	3.2

Source: Oxford Economics

SECTOR FORECASTS

Food & Drink continues to be the largest sector by value

Subsector share of Manufacturing Gross Value Added (2019 Q4)



Source: Oxford Economics

FOOD & DRINK

The **Food & Drink** sector remains the UK's largest manufacturing sector by a significant margin. It accounts for 15.6% of the manufacturing GVA total and employs about 450,000 people directly. The employment level in the sector is currently at its highest level since 2004. Food & Drink has been the sub-sector that has weathered the storm facing the manufacturing industry the best. The stalwart performance of the sector has predominantly been a result of huge domestic demand for foodstuffs, which customers will always need, regardless of how something the economy is otherwise doing.

A great performance at the start of the year has been followed by a marginal dip caused by the slump in the aftermath of stockpiling activities, and now in Q4 GVA is expected to be up by 0.8%. It was thought that we might experience another round of stockpiling activities, artificially boosting the sector's performance metrics, in the run-up to the October 31st Brexit deadline. However, this did not occur to the same degree that was observed at the start of the year. Nonetheless, Brexit remains a pressing issue for the sector, particularly for the manufacturers who rely heavily on flexible EU labour for seasonal work. Packaging and regulatory divergence also threaten to incur significant administrative costs for the 20% of manufacturer's in the sector who are export reliant.

Given the sector's strong domestic demand and resilient order books, we expect the sector's output to grow as we move into 2020, yet we expect employment to contract too as the Christmas boost fades, as is the case for many manufacturing sectors this period. Even before the UK has left the EU, Food & Drink manufacturers cite access to labour as one of their top concerns in 2019.

ELECTRONICS

Electronics has been a positive force for UK manufacturing in recent years, with double-digit growth in output in 2018 followed by a strong 2019 as well. However, the forecast for 2020 is bleak with a marginal expansion of just 0.02% expected.

High global demand for automation products has driven the sector's recent positive growth, although rising competition, particularly from China, has created a tougher market for its products. The sector is sensitive to variations in input prices and is particularly exposed to international price fluctuations as the majority of input components for the sector are imported. Both the ongoing US-China tech war and Brexit debacle weigh negatively on immediate forecasts for the industry.

Growing domestic demand for products that cater to the increasing appetite for automation technologies provides some positive offsetting effects for our expectations going into 2020. That said, however, we expect a slowdown from the significant pace of 2019 and predict only marginal growth for 2020. Output recorded in this quarter has been disappointingly low, marking a slowdown from a consistent year, and is just barely positive. Employment, on the other hand, has a bleaker outlook. Failing to buck the trend being observed across many manufacturing sectors, employment has been trending downwards in the past 2 years, and we expect the Electronics' sector employment to decrease by -2.9% in 2020.

BASIC METALS AND METAL PRODUCTS

The **Basic Metals**, and by extension the **Fabricated Metal Products** sector, have been experiencing very tough times which have also been highly publicised, the turbulent year suffered by British Steel being the most obvious example. Their downstream links to both the Automotive and Mechanical Equipment sectors, which have each been experiencing troubling economic conditions themselves, only compounds the challenges being faced by Basic metals and Metal products. The

US-China trade war has disrupted the steel market, and a particularly troubled British Steel has been seeking a buyer. As mentioned earlier in this report, British Steel may have now found a buyer in Chinese firm Jingye. The deal, however, is yet to be finalised, and until then, the uncertainty will continue. We expect output in 2020 for the Basic Metals sector to decrease to -4%, a worsening on 2019's decrease of -3.5%.

In the most recent trade data, we observe a significant increasing trend in the Fabricated Metals sector's exports to the non-EU countries, while exports to the EU are only growing marginally. Domestically, the Metal products sector is caught between the Basic Metals sector and the Automotive and Mechanical Equipment sectors. If these latter two sectors experience positive economic conditions in 2020, we expect this to spill-over into the fabricated metals sector also. Based on this, we forecast a decrease in output for the sector by -2.0% in 2020.

MECHANICAL EQUIPMENT

Following a sharp contraction in 2019, the situation for the **Mechanical Equipment** sector is looking to recover somewhat, and we expect only marginal contraction for 2020. This will be welcome news for a sector which has now experienced five continuous quarters of contraction. Investment levels in 2019 in UK manufacturing across the board have been very poor, with the Mechanical Equipment sector feeling the squeeze from the lack of business spending.

The sector reads as a proxy for overall manufacturing investment, because when these businesses invest in physical industrial capital the manufacturing equipment sector will naturally experience a boost. The lack of investment in the last two years has been attributed to the uncertain business environment the economy finds itself in. As the investment slump eases, we expect output to be only slightly negative for 2020 at -0.8%, a marked improvement from the -5.3% in 2019.

TEXTILES

The **Textiles** industry has long ridden the boost that came with the stockpiling activities at the start of the year, meaning that it performed better than expected for the most part in 2019. However, potential struggles for the sector have been signalled by the recent shuttering of some notable high street clothing brands.

Skills shortages are a continued concern for the sector, threatened further by the potential loss of EU workers post-Brexit. According to the British Retail Consortium (BRC) this is the 15th consecutive quarter of year-on-year decline in retail employee numbers. While there has been positive news regarding greater than expected pre-tax profits for some select titans of the UK textiles industry, along with globally publicised advancements in sustainable fashion, we still predict a decline in output and an even larger drop in employment for the sector as the negative pressures outweigh recent achievements. As we move into 2020 we expect a decline in output by -2.8% and a fall in employment by -3.7%.

PAPER & PRINTING

While the **Paper & Printing** market is enjoying a boost from demand that has relocated from the plastics sector in the midst of the growing environmental movement, the market is currently being shaken up by big investments elsewhere in the world. In particular, Chinese company Nine Dragons announced massive investment plans for paper mills it had bought in the US, the news alone was enough to disrupt the share price of the three incumbent big players in the industry: Smurfit Kappa, Mondi, and DS Smith.

The UK is a leader in online shopping, responsible for the largest share of any EU country (7.2%) of the global online grocery market. This is good news going forward for the Paper & Printing sector as packed goods use six times more wrapping than their equivalent sold in shops. With the growing number of pledges being made by businesses to be plastic-free, the Paper & Printing sector is likely to continue gaining some of the plastic industry's loss. Although, the sector has not been sheltered from the rough environment facing other manufacturing sectors entirely, and as such, we expect output to decline by -2.9% and employment to decrease to -4.2% in 2020, following the general employment trend being observed across manufacturing in the UK.

ELECTRICAL EQUIPMENT

With an improved outlook heading into 2018, the **Electrical Equipment** sector looked to recover some of the significant losses occurred in the preceding year. However, pumping the brakes on this recovery has been the Governments' announcement to abandon the target of delivering full-fibre broadband to all households by 2025, with ministers now instead seeking to roll out "gigabit-capable" speeds with no specific end date mentioned. None of the upcoming developments in wind farms or fibre optic cables are imminent, and the fibre optic cables are not full-fibre, only part fibre. With some wind farms being announced and some being cancelled, it is unlikely that there will be immediate changes in this field. Although, the Labour party's recently published manifesto has pledged a commitment to 37 offshore wind farms. While this change in strategy will still benefit the sector in the longer term, we expect this to negatively affect output in the immediate term and contract overall by -1.5% in 2020.

NON-METALLIC MINERALS

The greatest risk for the **Non-Metallic Minerals** sector (bricks, glass and mortar) comes from rising costs and subdued investment, especially as cost pressures have increased significantly as a result of the sharp fall in Sterling since the referendum. As the industry is twice as import intensive than it is export intensive, variations in costs are a serious concern for the sector. It began to feel the impacts of the broader weakness in economic growth and a diminishing pipeline of construction activity in Q3, with manufacturers reporting a fall in sales and a slowdown in hiring during the quarter.

Construction PMI dropped in September but rose slightly in October. The Construction Products Association's (CPA) autumn forecasts show expectations of a fall, due to Brexit uncertainty and infrastructure uncertainty. We expect output in the sector to decline by -2% in 2020, an improvement from the -5.9% seen in 2019.

PHARMACEUTICALS

Pharmaceuticals were one of the sectors to grow the most in the first quarter as a result of stockpiling activities by virtue of the rush in both exports and imports prior to the original Brexit date of March 29th. Both public and private health providers are adamant that sufficient plans have been put in place and potential supply chain issues addressed but Brexit still remains a top concern for the sector, particularly with fears of a shortage in medicines, and a lapse in regulation of the sector following the UK's departure from the European Medical Association. China, the world's second largest pharmaceutical market, rolled out new policy in September to improve collective bargaining power, and thereby reduce the price paid by Chinese customers for pharmaceutical products. Due to the size of the market in China, this is likely to have negative repercussions for UK pharmaceutical firms who export to China. We expect this to compound the negative effects of EU regulatory uncertainty, so we expect a contraction in output of -1.4% in 2020.

CHEMICALS

The future of the **Chemicals** sector is heavily dependent on the EU's extensive REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals) regulations, something that is potentially on the chopping block depending on the nature of the UK's impending departure from the EU. Industry body the Chemical Industries Association (CIA) supports the Government's current withdrawal agreement on the basis that it protects the REACH regulatory framework which is so important for the sector's ability to trade internationally. Their latest quarterly survey results indicate that 38% of companies saw a fall in sales and 40% saw a decline in export orders, although R&D spending and employment remain stable.

The share price of Chemical sector companies on the London Stock Exchange has been trending upward, foreign investment has been relatively strong, and the UK Government's recent Advanced Propulsion Centre report says that by 2030 it is estimated that nearly all vehicles in Europe will contain new types of battery power which will largely be supplied by the chemicals sector.[7]

Due to the sector's reliance on the EU both for orders and for regulatory alignment, we expect a decline in output by -2.2% albeit dependant on the nature and date of Brexit.

RUBBER & PLASTICS

The well-publicised decline in demand for single-use plastics, and the growing anti-plastic movement is affecting manufacturers of plastic products, particularly those manufacturers in the packaging industry. A recent report from market research firm IBISWorld found that the UK tyre sector has been in a downward trend to date since 2014, by 6.5%.[8] The sector's performance is linked to the automotive industry, and so recent turbulence there will have knock-on impacts for the **Rubber & Plastics** sector's near future performance.

7 https://www.apcuk.co.uk/app/uploads/2019/04/Automotive-Batteries-Report-Summary-April-2019.pdf

8 https://www.ibisworld.com/united-kingdom/market-research-reports/tyre-manufacturing-industry/

The Rubber & Plastics sector will continue to struggle to see gains as a result of both the difficulties faced by other sectors in the supply chain, and society's shift from plastic products. As a result, we expect output to decline by -1.3% in 2020, but slightly better than the -1.9% decline in 2019.

AUTOMOTIVE

The **Automotive** sector has been infamous for its poor economic performance over the past year, with a number of large manufacturers announcing plant closures and staff redundancies. According to the Society of Motor Manufacturers and Traders (SMMT) private vehicle registrations for the year to date are down 3.2% while business vehicle registrations are down by 37.1%.[9]

The most recent data suggests car registrations fell by 6.7% in October, while electric car sales went up slightly, but the rate of growth is slowing down. Confidence in the sector is low, and its big players aren't shy about publicising this. Vauxhall recently announced that they believed a no-deal Brexit would see the new car market significantly hurt, and also stated they would have to take some of their manufacturing operations elsewhere if the UK leaves the EU without a deal.

After a fairly disastrous contraction of -7.1% in 2019 we expect a degree of bounce-back once supply chains get back on track and we anticipate an expansion in output by 1.2% in 2020.

OTHER TRANSPORT

Primarily composed of defence, aerospace and the shipping industry, the **Other Transport** sector remains quite resilient to national economic weakness by virtue of its secure and time committed order books. However, the Government's latest withdrawal agreement proposal has the potential to impact negatively on the sector because it would surrender UK membership of the European Union Aviation Safety Agency (EASA), which could give rivals an advantage over the UK. According to the FT, the aerospace industry estimates that it could cost between £30m – £40m a year (as opposed to the annual £1m membership fee to be a part of EASA) to recreate the same safety standards that took decades to build.[10]

In addition, Maritime companies have been leaving Britain's shipping registry due to Brexit uncertainty resulting in loss of tax revenue for the UK government.

We expect positive growth in output in 2020 by 1%, an improvement from the -1.2% in 2019.

Sector growth rates and forecasts

% change

	OUTPUT			EMPLOYMENT		
	2018	2019	2020	2018	2019	2020
Basic metals	-2.7	-3.5	-4.0	4.4	1.4	2.5
Metal products	0.7	0.1	-2.0	4.9	3.1	-2.7
Mechanical	1.8	-5.3	-0.8	2.8	2.5	-0.9
Electronics	10.0	2.4	0.02	-0.5	-0.6	-2.9
Electrical	-7.6	3.8	-1.5	-0.1	3.7	-6.3
Motor Vehicles	-1.5	-7.1	1.2	2.9	3.1	-1.7
Other transport	2.8	-1.2	1.0	0.2	0.8	-2.8
Food and drink	1.8	2.4	1.0	2.2	2.1	-1.2
Chemicals	0.3	-0.5	-2.2	-3.1	3.4	-4.3
Pharma	4.3	4.2	-1.4	2.3	1.0	-4.5
Rubber and plastics	0.8	-1.9	-1.3	4.7	-1.8	1.4
Non-metallic minerals	-1.7	-5.9	-2.0	-2.6	3.7	-4.9
Paper and printing	-0.2	1.2	-2.9	-1.4	-2.5	-4.2
Textiles	-0.2	1.3	-2.8	-2.0	-1.5	-3.7
Manufacturing	0.9	0.1	0.3	1.1	0.4	-2.5

Sources: Make UK and Oxford Economics

Source: Oxford Economics

9 https://www.smmt.co.uk/vehicle-data/car-registrations/

10 https://www.ft.com/content/ce837afe-eb71-11e9-a240-3b065ef5fc55

BDO VIEWPOINT

CREATING A SUSTAINABLE MANUFACTURING FUTURE

The world is facing a climate change challenge. Growing public pressure and increasing regulations mean that the move towards a lower carbon footprint will be one of the major factors in manufacturing in the decades to come.

Sustainable manufacturing is making its way to the top of the manufacturing boardroom agenda. We are already seeing global OEMs issuing public statements that they have recognised this challenge and they are expecting their supply chains to develop sustainability programmes to meet that agenda.

Two major OEMs in automotive and aerospace are clear that sustainability and reducing their carbon footprint is a key strategic imperative.

Jaguar Land Rover is striving to reduce 30% of its emissions across its manufacturing operations by 2020. It plans to do this by designing and engineering emission-free vehicles and reviewing how it sources materials and eliminates waste. With over 10,000 suppliers, it is building a sustainable, resilient and ethical supply chain particularly through its tier 1 suppliers. This, in turn, will put significant pressure on those further down the supply chain.

Similarly, Rolls Royce set a number of targets in order to minimise the impact of its products on the environment. These include reducing energy use in their operations and facilities by 30% and achieving zero greenhouse gas emissions in its operations and facilities by 2030. Rolls Royce is developing hybrid systems and has a 'Global Supplier Code of Conduct' to ensure its suppliers maintain the highest ethical standards, behaviours and compliance. It sees technology playing a fundamental part in this transition.

The direction of travel is all too clear – sustainability will rapidly become a 'must have' for all manufacturers. Companies that do not change are likely to be left behind as the world moves towards a greener future.

Unfortunately our Make UK/BDO Manufacturing Outlook survey has shown manufacturer's investment intentions have contracted throughout 2019. Despite investment intentions returning to positive territory this quarter, they are still very low.

The move to a more sustainable business often involves high costs and the changes can sometimes be challenging to manage. With the ongoing uncertainty, manufacturers' ability to make a step change towards a more sustainable future is hugely inhibited. Directly linked to sustainability is 4IR. Sustainability wins can be generated through a greater digitalised environment, however we are seeing investment in digital transformation decreasing due to the uncertain and unstable landscape.

With increased reporting requirements from the Government such as the 'Streamlined Energy and Carbon Reporting' (SECR) regulations, which require organisations to report on a range of environmental factors including greenhouse gas, it is important for manufacturers to start monitoring the environmental impact of their business and identify ways in which they can improve environmental performance and cut costs and waste.

There is no doubt that sustainability and 4IR will be major issues for UK manufacturing in the years ahead. There is also no doubt that the sector needs the government to develop a clear and supportive industrial strategy to help support the significant change and high levels of investment that will be required.

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The Manufacturers' Organisation

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We're delighted to introduce Make UK, the new name for EEF, and our family of new brands including Make Business and Make Venues. Together they will support the needs and requirements of our vibrant sector and ever-changing marketplace.

We stimulate success for manufacturing and technology related businesses, enabling them to meet their objectives and goals. We empower individuals and inspire the next generation.

We create the most supportive environment for UK manufacturing growth and success and we represent the issues that are most important to our members, working hard to ensure UK manufacturing remains in the government and media spotlight.

Our extensive knowledge of manufacturing that means we're able to influence policy-making at local, national and international levels. We push for the policy changes that our members want to see. We are the voice of manufacturing.

MakeUK.org

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The data used in this survey have been provided by UK manufacturers including members of Scottish Engineering and Make UK. Contributing to our surveys helps to accurately reflect trends and behaviours that shape the UK manufacturing sector.

*Correction: Manufacturing Outlook 2019 Q3 reported a confidence value of 5.8 this should have been 3.4.

If you would like to participate in future surveys, please contact our Information and Research team research@MakeUK.org

Accountancy and business advisory firm BDO LLP is the UK member firm of BDO International, which has more than 1,600 offices in 162 countries. We operate from 17 offices across the UK, employing 4,600 people offering tax, audit and assurance, and a range of advisory services.

Manufacturing is a priority sector for BDO and this focus enables us to tailor the wide range of services we offer and apply our skills and knowledge to help clients achieve their objectives.

We provide real solutions to industry issues, utilising our capabilities in everything from sector-specific tax, audit and business advice to patent box, research and development claims and acquisition opportunities to help our clients grow in the UK and overseas.

We have an excellent understanding of the issues affecting UK manufacturers as an industry sector, but we also focus on specific sub-sectors to improve our knowledge and our service to clients. These include: aerospace, automotive, building products, chemicals and pharmaceuticals, electrical, food and drink, industrials, technology and test and measurement.

Manufacturing remains one of the key industries of the UK economy. We are delighted to be able to play an active role in supporting the businesses that operate in this vibrant, changing and challenging sector.

For further information about our business and services, please visit our website: **www.bdo.co.uk**

To talk about any issues your manufacturing business may be facing please contact:

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