Business Confidence, TCA Adaptation, and Export Performance

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INTRODUCTION AND PREMISE

Business confidence or business sentiment is a measure of how a firm's managers perceive the external environment and how they feel about their current and future business prospects.[i,ii] It has both objective and subjective elements. The objective elements relate to business perceptions of both the facts of the operational environment and the arguments being presented about future expectations, while the subjective element relates to how a firm's management assesses its specific business conditions.

Business sentiment matters because business decisions are likely to be affected by it, although exactly how this occurs remains debatable.[iii] The expectations of business owners/managers drive their strategic and operational decisions,[iv] including those to do with the firm's capital structure, investment, M&A, innovation, and dividends.[v,vi] Business sentiment is also used to track changes in businesses' perceptions of export barriers over time.[vii]

In short, firms' business forecasts can have real impact on firms' decisions about production, investment, pricing, and employment.[viii,ix] Firms that are well managed tend to be better at forecasting, enabling them to make better business decisions that rapidly optimise their operational and strategic actions, leading to superior performance.[iv] For that reason, business confidence has been used to predict economic growth and to explain sudden shifts in business economic cycles.[ii,x] Low business confidence is a cause for concern because pessimistic sentiments are associated with economic downturn.[xi]

Although the concepts are well-established, what is less well understood is how business confidence translates into the 'right' actions that eventually lead to a performance premium. This insight paper provides some insight on this link by focusing on firm internationalisation. The internationalisation endeavour is a context where managerial confidence can be highly influential on the business operation. It affects how managers perceive the importance of related logistics and distribution factors, internal resource constraints, trade-related barriers, home market factors, and currency and payments obstacles.[vii] Businesses that are more optimistic and confident are likely to make active and proactive steps to optimise decisions about resource allocation for international commitment.

It is also known that confidence and uncertainty are negatively correlated.[iii] Where uncertainty is persistently high, business confidence tends to decline. The current UK context is therefore highly appropriate for examining the role of business confidence, given that UK businesses have been experiencing Brexit related uncertainties while also being exposed to soaring inflation, energy price hikes, and a cost-of-living crisis. The recent Quarterly Economic Survey (QES) of the British Chambers of Commerce (BCC) for Q3 2022 reports a significant decline in business confidence in almost all sectors and in many key indicators such as sales and profit expectations.

The effect of business sentiment is stronger when uncertainty is high because the likelihood of making errors in judgement increases when crises or shocks are creating uncertainty. It is reasonable to assume that the turbulence of a crisis obscures the understanding of a situation, making businesses less confident about predicting the future. In short, weak business sentiment impacts on decision making about future actions, increasing the tendency to inaction, late action, or inadequate action.

A long period of uncertainty during the Brexit transition loomed over all businesses that traded with the EU or involved into the EU supply chains, but some businesses responded better than others and may have achieved better outcomes as a result. In fact, the degree of preparedness for the Brexit changes by UK businesses was astoundingly low.[1] While some businesses were fairly prepared for the changes, many others, struggling with the ambiguity and uncertainty that typified the end of the transition period, were far less so.[xi]

Firm performance in such contexts depends on how well firms adapt to the changing conditions for international trade relative to other firms with whom they compete for resources and markets. They must make adaptations without foreknowledge of what will be the optimal approach for overcoming future business challenges. It is also unsafe for them to rely on their observations of how other firms are planning for the future because each firm's approach will be context-specific, varying with sectoral, locational, and individual business circumstances.

The consideration of the above leads to the following hypothesis. Business confidence impacts on firms' perceptions of the new export challenges presented by the EU-UK Trade and Cooperation Agreement (TCA), and also on their willingness and ability to adapt to changes in the requirements and conditions for exporting. The extent to which firms can prepare for such challenges and adapt to them drives their experience of different outcomes for their

[1] See for example https://www.theguardian.com/business/2020/jul/13/three-in-four-uk-firms-unprepared-for-brexit-iod-study-shows; https://www.cbi.org.uk/media/1316/cbi-brexit-preparedness-survey.pdf.

internationalisation efforts. In this paper, I report an empirical test of this premise, employing the British Chambers of Commerce (BCC) Trade Survey. This is followed by a discussion of the results and their implications.

AN EMPIRICAL TEST

I employ the BCC Trade Survey 2022 conducted during July and August for a two-step empirical test for the hypotheses. The empirical analysis focuses on firm's business confidence in the international trade process, more specifically measured by firm's reported confidence in managing shipping process. First, I explore how business confidence is associated with the adaptation to TCA, testing if businesses that are more confident are also more likely to feel it easier to adapt to the new trade conditions brought by the TCA (***Adapt**$_{it}$*). Second, I link TCA adaptation with trade performance Y, which can be export or import performance (***Export**$_{it}$*, ***Import**$_{it}$*). I then assess if adaptation plays a role in international trade performance, controlling for other factors that may impact on trade performance.

Specifically:

$$Adapt_{it} = \beta_0 + \beta_1 Size_{it} + \beta_2 Confidence_{it} + \beta_3 Exp + \beta_4 Operate_{it} + v_i,$$

where ***Adapt*** is a set of ordered variables that capture how adaptable a firm is to TCA-generated changes in the trading environment and conditions. The values of 1-3 represent how difficult, neutral, and easy a firm has found it to make the necessary adaptation. A positive coefficient indicates factors facilitating adaptation. The similar variables include:

Adapt_Goods, Adapt_Services, Adapt_Recognition of qualifications, Adapt_Visas, and *Adapt_Transferring of data,*

for how adaptable are firms for TCA related to goods, services, the requirement for recognition for qualifications, visa requirements and transferring data.

Confidence is business confidence, proxied by how confident the business is at estimating their final shipping cost. This takes value 1-4, indicating “Never confident”, “Rarely confident”, “Usually confident”, and “Always confident”. In the regression, lowest confidence is taken as a reference group. Positive signs suggest that higher confidence in estimating the final shipping cost is associated with easier adaptation to new trade conditions.

The model controls for a set of firm characteristics, export features, and operational features. ***Size*** is a measure of firm size by employment, which can be micro (1-9 employees), small (10-49 employees), medium (50-249 employees), or large (more than 250 employees). ***Exp*** is a vector of variables: exporter of goods, exporter of services, exporter of both, and if the firm exports to the EU. ***Operate*** is a set of variables that captures the firm's operating status. The variables include firm's expectations about change in price, shortages experienced, impact of a weak pound on business operations, use of export support services, and use of a clearing agent. The empirical model is estimated by an Ordered Probit model, controlling for firm size, industry, and regions.

The second step of the analysis concerns export performance, with a focus on testing if a firm's adaptability to the changing environment of international trade has an impact on its trade performance. This leads to the following model:

$$Y_{it} = \beta_0 + \beta_1 Size_{it} + \beta_2 Adapt_{it} + \beta_3 Exp + \beta_4 Operate_{it} + v_i,$$

where *Y* is a vector of export/import performance (*Export* or *Import)* which captures how the firm's export and import values of July/August 2022 compared to those of January 2022. The two variables are built into ordered variables indicating changes in export/import values. These take the following values: 1 for value decreasing more than 10%, 2 for value decreasing by 1-9%, 3 for no change, 4 for value increasing by 1-9% and 5 for value increasing by more than 10%. Again, the empirical model is an estimated Ordered Probit model, controlling for firm size, industry, and regions.

SUMMARY STATISTICS

As reported in Table 1, the sample for analysis mainly comprises micro, small, and medium firms, which make up of 92% of the whole sample of 395 firms. Around three-quarter of the firms export goods to the EU, while one in eight exports services. More firms report that they find it "easy" to adapt to the TCA rules, although more difficulty was experienced with goods adaptations and qualification recognition adaptations than with adaptations related to services. The mean level of firms' confidence in estimating the final costs of shipping is 2.69 out of 4 (with 4 being "Always confident"). There was a large variance in the sample, which suggests that while some firms are fairly confident, others are less certain.

International trade performance is scored at more than 3 out of 5 on average, which indicates that the average export and import performance for the firms in the sample performed reasonably well during the examined period. This positive news comes with a caveat: the analysed sample contains only exporters who have been able to remain in the market. The poorest performing trading firms might not be represented here, hence the sample would not reflect the overall performance of the true business population. The potential survival bias implies that the reality could be worse than the depiction here.

Turning to the operational side, 71% of firms have experienced shortages of goods and services during the sample period, and that a small fraction of firms expect prices to change (16%).[2] In terms of how the weak pound is affecting businesses, the largest impact of currency depreciation lies in input costs, in that 56% of firms report that impact. This is followed by 21% of firms who report that the weak pound has impacted on their export sales margins. A small fraction of firms also report the weak pound driving down their overseas orders (6%), leading to the loss of overseas workers (8%); conversely, however, some report that it has led to more UK orders (5%).

Only 9% of firms use the UK government's Export Support Services (ESS), which is a free helpline and online service where all UK businesses can get answers to practical questions about exporting to Europe. By contrast, nearly three-quarter of the firms use a clearing agent to support their international trade activities.

FINDINGS

Business confidence and TCA adaptation

Table 2 reports the regression analysis in the first step modelling for factors that make it easier for businesses to adapt to the new TCA rules. Positive, larger, and statistically significant coefficients mean a higher likelihood of easier adaptation. The first thing to note is that a higher degree of business confidence is, as hypothesised, associated with easier adaptability of businesses as they deal with the TCA-inspired changes in trading conditions. The effect is strongest on buying and selling services and the recognition of qualifications. A high confidence level is also important to adapting to changes in buying and selling goods, as well as in

[2] This would likely be a rather optimistic view, given that the survey was conducted in July-August 2022, i.e., just before the following month's increase in inflation and interest rate, and the pound's depreciation.

transferring data. Understandably, business confidence does not seem to matter for adapting to new rules regarding visas.

Unsurprisingly, size matters. Medium and large firms are clearly advantaged when it comes to coping with the changes in trading requirements. They are more likely to report that making adaptations for goods, services, and recognition of qualification is “Quite easy” or “Very easy” than micro firms (the reference group) and small firms. Indeed, small firms have limited resources in terms of financial and human capital. That restrains their capabilities to adjust to shocks and diversify their export baskets. The existing literature also documents that non-tariff measures (NTMs) affect small businesses disproportionally more.[xii,xiii]

Several controls are included in the regressions. First, as expected, exporting to the EU is associated with more difficulties in adapting to TCA services and visas arrangements. Second, experiencing shortages is strongly associated with more difficulties in adapting to buying and selling goods under the TCA. Third, I find that the only channel through which currency depreciation affects TCA adaptation is through the loss of overseas workers. The weaker pound affects the pay of overseas workers (in that a relatively lower wage is being offered) and this appears to be a strong disrupter of the adaptation to change for almost all aspects of the TCA. The negative effects reflect on the challenges of firms’ skill shortage problems, which are exacerbated by currency depreciation. In addition, there is no evidence that the increased input costs due to the weaker pound had negative impact on adaptation.

TCA adaptation and trade performance

Turning to export performance, the results presented in Table 3 indicate that the level of ease of adapting to new rules for buying and selling goods is strongly associated with trade performance. The firms that find it difficult to adapt to new rules for buying or selling goods tend to report significantly lower growth or higher decline in export values. On the other hand, the firms that find it easy to adapt to the new rules for buying or selling goods tend to report significantly higher growth or less decline in import values. This is after controlling for firm size, industry, region, and a number of other factors that may affect trade performance. The level of difficulty in adapting to other aspects of TCA does not seem to affect export and import performance.

Once again, firm size is critical. Larger firms have performed statistically significantly better than smaller firms, and the largest firms enjoy the best export and import performance. Firms that export to the EU are more likely to report reduced and slower export growth, in line with what is reported above in terms of their difficulty with TCA adaptation. Little evidence suggests that the weak pound directly impacts on export and import performance. Interestingly, increased UK orders due to the weak pound is negatively associated with export performance, suggesting that there have been substitutions between export sales and domestic sales. This may indicate that some UK exporters have pivoted to expanding their domestic market when facing export challenges.

DISCUSSION AND CONCLUSION

The empirical analysis above finds some support for the hypothesis that business confidence impacts on firm's experience of adapting to the new TCA rules, which further impacts on their international trade performance. Business confidence may have shaped perceptions of the new export challenges brought by the TCA, and firms' own ability to adapt to changes in the requirements and conditions for exporting. Adaptation and preparedness help explain more successful trade performance.

Firm size is a consistent predictor of both a firm's ability to adapt to the TCA and its trading performance, with exporting to the EU being a statistically significant factor for worse export performance. The most concerning consequence of currency depreciation lies in its impact on overseas hiring, which clearly negatively affects firms' post-Brexit adaptation.

There is evidence that UK firms are pivoting towards domestic market sales as a response to export weakening, which is good news at a time of economic shock and crisis. However, this should only be a temporary or transitory solution until firms find it sufficiently feasible or cost-effective (in economics terms: "productive") to export again.

These findings have important implications. Overall, business confidence matters, and one of the ways it matters is that it impacts on the firm's international trading performance through how it responds to changes in the trading conditions and environment. This offers two lessons. First, it is important to boost firm's business confidence. In this case, it is firm's confidence in managing international trade process that is important. Higher business confidence is more likely to lead to firms taking proactive action to adapt to changes; this enables them to meet challenges, which helps performance to sustain or improve. Given that business confidence is formed from the facts of a firm's operating environment and the rational expectations triggered by arguments presented about the future (e.g., by government/media), it is crucial that the key facts, key arguments, and the implications of the facts are communicated effectively to firms. This is because information frictions negatively affect firm performance through its resource misallocation. Hence, providing mechanisms (e.g., intermediaries to address information void or misinformation) through which information frictions can be reduced would be helpful. This is of course no easy task and requires concerted efforts by government, business associations (such as CBI and BCC), experts, and the media.

Second, business confidence is also shaped by a firm's subjective assessment of its own business conditions. This means that the expectation formation and forecasting ability of business owners and managers are essential. The ability to predict business conditions more accurately and prepare for uncertainty is the bedrock of business confidence, driving the decisions that businesses make. Indeed, forecasting ability is considered to be a key element of the abilities and practices of management that explain firm productivity and other kinds of performance.[xiv,xv] Firms that are in the early stages of entrepreneurship and small businesses that are constrained by resources may miss a trick here, as the evidence suggests that larger and older firms tend to predict their own performance better than younger and smaller firms.[xvi]

In conclusion, analysing the British Chambers of Commerce Trade Survey 2022 conducted during July and August, this paper finds empirical support for the proposition that business confidence impacts on firm's trade performance through their adaptation to the changing environment under the EU-UK TCA. This highlights the importance of improving business confidence from the perspective of policymaking by reducing information frictions. It also emphasises the need for improving firms' capabilities to assess and predict their business conditions in an uncertain and changing environment, especially for small businesses.

TABLES

Table 1 Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Size					
Micro: 1-9	395	.31	.46	0	1
Small: 10-49	395	.41	.49	0	1
Medium: 50-249	395	.2	.4	0	1
Large: 250+	395	.08	.27	0	1
Trade					
Export goods	395	.77	.42	0	1
Export services	395	.12	.33	0	1
Export to EU	395	.72	.45	0	1
Export performance	320	3.08	1.43	1	5
Import performance	351	3.54	1.34	1	5
TCA adaptation					
Adapt_goods	395	1.7	.74	1	3
Adapt_services	377	1.94	.55	1	3
Adapt_recognition of qualification	395	1.7	.74	1	3
Adapt_visa	384	1.93	.46	1	3
Adapt_transferring data	384	2	.48	1	3
Confidence final cost	395	2.69	.81	1	4
Operate					
Expect price change %	395	.16	.2	-.15	2.05
Experiencing shortage	395	.71	.45	0	1
Weakerpound_overseas order_down	395	.06	.24	0	1
Weakerpound_UK order_up	395	.05	.22	0	1
Weakerpound_input costs_up	395	.56	.5	0	1
Weakerpound_overseas worker_down	395	.08	.27	0	1
Weakerpound_export sales margin_down	395	.21	.41	0	1
Use Export Support Services	395	.09	.29	0	1
Use clearing agent	395	.71	.45	0	1

Table 2: How does business confidence impact on adaptation to new trade environment?

VARIABLES	Adapt_goods	Adapt_services	Adapt_recognition of qualification	Adapt_visas	Adapt_transferring data
Confidence = 2, Rarely confident	-0.189	0.423*	-0.189	-0.283	0.610**
	(0.243)	(0.257)	(0.243)	(0.283)	(0.275)
Confidence = 3, Usually	0.136	0.532**	0.136	-0.170	0.522**
	(0.228)	(0.244)	(0.228)	(0.266)	(0.259)
Confidence = 4, Always	0.600*	1.109***	0.600**	0.332	0.598*
	(0.272)	(0.297)	(0.272)	(0.319)	(0.307)
Firm size: Small: 10-49	0.135	0.146	0.135	-0.046	-0.102
	(0.159)	(0.172)	(0.159)	(0.187)	(0.183)
Firm size: Medium: 50-249	0.570*	0.730***	0.570***	0.210	0.192
	(0.190)	(0.205)	(0.190)	(0.220)	(0.210)
Firm size: Large: 250+	0.477*	0.573**	0.477*	0.162	0.256
	(0.253)	(0.271)	(0.253)	(0.293)	(0.280)
Export goods	0.259	0.172	0.259	0.225	0.109
	(0.222)	(0.240)	(0.222)	(0.254)	(0.249)
Export services	0.260	0.230	0.260	0.008	0.722***
	(0.201)	(0.211)	(0.201)	(0.228)	(0.226)
Export to EU	-0.310	-0.610***	-0.310	-	-0.079
	(0.208)	(0.230)	(0.208)	(0.245)	(0.236)
Expect price change %	-0.389	-0.407	-0.389	-	-0.182
	(0.314)	(0.340)	(0.314)	(0.367)	(0.340)
Experiencing shortage	-	-0.153	-0.403***	-0.202	-0.077
	(0.138)	(0.150)	(0.138)	(0.165)	(0.158)
Weak £_overseasorder_down	-0.025	0.075	-0.025	0.323	-0.478
	(0.266)	(0.285)	(0.266)	(0.312)	(0.291)
Weak £_UKorder_up	0.092	-0.324	0.092	-0.043	-0.363
	(0.293)	(0.308)	(0.293)	(0.322)	(0.320)
Weak £_inputcosts_up	-0.042	0.089	-0.042	-0.154	0.150
	(0.131)	(0.140)	(0.131)	(0.153)	(0.147)
Weak £_overseasworker_down	-	-0.895***	-0.474*	-0.426	-0.910***
	(0.249)	(0.255)	(0.249)	(0.263)	(0.265)
Weak £_expsalesmargin_down	-0.191	0.139	-0.191	0.095	-0.006
	(0.166)	(0.173)	(0.166)	(0.190)	(0.182)
Cuts			Cuts1***		Cuts1***
Observations	395	381	395	388	388
Dummies: Sic2 industry/ Nuts1	Y/Y	Y/Y	Y/Y	Y/Y	Y/Y

Note: The models are estimated by Ordered Probit for ordered variables (Adapt_TCA). Each Adapt_TCA variable takes three values: 1: difficult, 2: neutral, 3: easy. A positive coefficient indicates the variable is associated with an easier adaptation to TCA in that aspect of trade, while negative coefficients indicate the opposite being associated with the likelihood of a firm reporting difficulty in adapting to the TCA. Five aspects of adaptation to the TCA are modelled: Adaptation in buying or selling goods, Adaptation in buying or selling services, Adaptation in recognition of professional qualifications, Adaptation for obtaining visas, and Adaptation for transferring data. Standard errors in parentheses; *** p<0.01, ** p<0.05, * p<0.1.

Table 3: How does adaptation to new trade environment impact on trade performance?

VARIABLES	Export	Import
TCA_adapt_Buying or selling goods: Difficult	-0.398***	0.106
	(0.149)	(0.144)
TCA_adapt_Buying or selling goods: Easy	0.029	0.434**
	(0.203)	(0.209)
TCA_adapt_Buying or selling services: Difficult	0.000	-0.110
	(0.160)	(0.166)
TCA_adapt_Buying or selling services: Easy	0.276	0.138
	(0.220)	(0.225)
TCA_adapt_Obtaining visas: Difficult	0.102	0.197
	(0.175)	(0.186)
TCA_adapt_Obtaining visas: Easy	-0.196	-0.125
	(0.223)	(0.250)
TCA_adapt_Transferring data: Difficult	0.108	-0.231
	(0.192)	(0.199)
TCA_adapt_Transferring data: Easy	-0.003	-0.297
	(0.209)	(0.209)
Firm size: Small: 10-49	0.421***	0.524***
	(0.146)	(0.151)
Firm size: Medium: 50-249	0.522***	0.369**
	(0.183)	(0.182)
Firm size: Large: 250+	1.180***	0.775***
	(0.247)	(0.239)
Export goods	-0.025	0.043
	(0.228)	(0.203)
Export services	-0.230	-0.217
	(0.199)	(0.192)
Export_eu	-0.417**	-0.197
	(0.179)	(0.193)
expect price change %	0.100	0.391
	(0.289)	(0.301)
experiencing shortage	-0.121	0.151
	(0.130)	(0.131)
weakerpounds_overseasorder_down	-0.165	-0.144
	(0.230)	(0.266)
weakerpounds_UKorder_up	-0.627**	-0.291
	(0.276)	(0.253)
weakerpounds_inputcosts_up	-0.044	0.170
	(0.118)	(0.120)
weakerpounds_overseasworker_down	-0.194	-0.208
	(0.199)	(0.194)
weakerpounds_expsalesmargin_down	-0.039	-0.076
	(0.132)	(0.149)
Use Export Support Services	-0.192	-0.228
	(0.216)	(0.226)
Use clearing agent	-0.121	0.052
	(0.142)	(0.136)
Cuts	cut1***; cut2***	cut4***
Observations	413	412
sic2	Y	Y
nuts1	Y	Y

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APPENDIX

Business confidence: proxied by the business confidence of estimating their final cost of shipping, *confidence_finalcost*, taking value 1-4. The higher value means more confidence. In the regression, lowest confidence is taken as a reference group. Positive signs suggest that higher confidence in estimating final cost is associated with easier adaptation to new trade conditions.

This comes from [q5] When your business ships goods to and from overseas markets, are you confident that you know the final cost before the end of the process?

Row:
[1] Never confident (Base group)
[2] Rarely confident
[3] Usually confident
[4] Always confident

Adaptation to TCA: Ordered variables to capture the adaptability of firms to changes in trading environment and conditions due to the TCA, taking value of 1-3 for difficult (c3 and c4 below), neutral (c5 and c6 below), and easy (c1 and c2 below). A positive coefficient indicates factors facilitating the adaptation. These are:

TCA_goods, *TCA_services*, *TCA_recognition of qualification*, *TCA_visas*, *TCA_transferring data*.

This is based on [q18] Across each of the following broad areas, how easy or difficult has it been for your business or supply chain to adapt to changes flowing from the TCA?

Column:
[c1] Very easy
[c2] Quite easy
[c3] Quite difficult
[c4] Very difficult
[c5] Too early to say
[c6] Not applicable to my business

Row:
[r1] Recognition of professional qualifications
[r2] Obtaining visas
[r3] Buying or selling goods

[r4] Buying or selling services
[r5] Transferring data

Export/import outcome/performance (*export*, *import*) captures how firms have done in terms of the value of exports and imports compared to January 2022. The two variables are built into ordered variables indicating the changes in export/import values, taking value 1 for value decreasing more than 10%, 2 for value decreasing by 1-9%, 3 for no change, 4 for value increasing by 1-9% and 5 for value increasing by more than 10%.

The empirical model then estimates what factors drive firms to export/import more in value.

This draws from [q3] Compared to January 2022, approximately how have the following changed?

Column:
[c1] Increased by more than 10%
[c2] Increased by 1-9%
[c3] No change
[c4] Decreased by 1-9%
[c5] Decreased by more than 10%
[c6] Not applicable

Row:
[r1] The value of your UK sales
[r2] The value of your imports
[r3] The value of your exports
[r4] Your overall sales margins
[r5] The cost of importing
[r6] The cost of exporting

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