Department for
Business, Energy
& Industrial Strategy

CONSULTATIVE COMMITTEE ON CONSTRUCTION INDUSTRY STATISTICS

Minutes of meeting held on Wednesday 26th June 2019

Venue:
Conference Centre,
Department for Business, Energy
and Industrial Strategy,
1 Victoria Street,
London,
SW1H 0ET

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Attendees

Frances Pottier	Department for Business, Energy and Industrial Strategy
Amy Symes-Thompson	Department for Business, Energy and Industrial Strategy
Fergus Harradence	Department for Business, Energy and Industrial Strategy
Ole Black	Office for National Statistics
Jacob Hamblin-Pyke	Office for National Statistics
Neil Higgins	Ministry of Housing, Communities and Local Government
Sandy Stewart	Scottish Government
Sree Vinayak	Invennt
Jane Tarver	AMA Research
Jim Meikle	
Noble Francis	Construction Products Association
Martine Damon-De Waele	Royal Institute of Chartered Surveyors
Brian Green	Brickonomics
James Hastings	Experian
Aurelie Delannoy	Mineral Products Association
Steve Shelley	Barbour ABI
Adam Valentine	Barbour ABI
Tom Hall	Barbour ABI
Alex Murray	Infrastructure and Projects Authority
Marco Yu	University College London
Stephen Gruneberg	University College London
Louis Lyons	Build UK
Robert Davies	Glenigan
Lee Bryer	CITB Research

Apologies

Kelly Forrest	Mace Consultancy Limited
Ceri Lewis	Office for National Statistics
John Allcoat	Office for National Statistics

1. Welcome, introductions and apologies - chair

Frances Pottier welcomed everyone to the meeting and invited people to introduce themselves.

2. Minutes from last meeting and actions taken - chair

Minutes from the previous meeting were circulated prior to today's meeting and have been published on the BEIS website. Actions from the previous meeting, which included sending round emails and details such as those of Stephen Gruneberg's book launch, were completed on the day of the last meeting. There were no further actions.

3. ONS construction statistics update – Ole Black

Ole Black gave a presentation describing updates to ONS construction statistics.

CCCIS ONS Update
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Ole mentioned the three areas he planned to discuss: re-designation, development work to date and current/future development plans.

i. Re-designation

- On 7th March of this year it was announced that Construction Output Price Indices, Great Britain Construction Output Statistics and Construction New Orders were re-designated as National Statistics. Ole explained that the de-designation was largely due to Price Indices and that gaining re-designation wasn't a quick process. It came about largely because of ONS's work with users.
- Ed Humpherson (Director General for Regulation, UK Statistics Authority) was pleased with the way ONS had worked with users, including industry experts, to improve their statistics.
- The statistics (listed above) are now National Statistics, with two exceptions: sub-national statistics and sub-sectoral level statistics. Although improvements to these statistics had been made, there was more that the Statistics Authority wanted to see done and ONS preferred not to prolong what had already been a long process. Notably, areas like Scotland were not yet fully satisfied with the quality of statistics. Moving forward ONS plans to do more in this direction.
- Sub-national and sub-sectoral statistics continue to be published on the same day as the re-designated National Statistics, but they are being published in a separate dataset and ONS are making it clear they are not National Statistics. They are much better than they were a few years ago despite not being considered for re-designation, however.

ii. Development work to date

- Ole explained that Construction Output Price Indices needed reviewing, and work on this culminated nearly two years ago. Improvements to these statistics included: improving the weights, revising the methodology of the labour component and reviewing the processes for materials. ONS has an expert group that they work with on this, including several members of CCCIS. They are also grateful for UCL's help.
- By September 2017 ONS believed they had improved Prices. The Office for Statistical Regulation (OSR) did praise out the work they had done, however came back to ONS with more requests for improvements. For example, OSR pointed out that ONS keep revising their data upwards from the first estimate. In response to this, ONS carried out a review of their methodology – looking at imputation and constructing estimates in particular. ONS hence improved their methodology and published an article about this in 2018.
- Since these improvements, when looking at the pattern of revisions over the last year, one can see they tend to be in both directions rather than upwards. ONS will review whether there continues to be a bias – particularly since the economy has changed considerably since ONS started doing this work two years ago.
- The next point of focus concerned improving regional and lower sector level estimates. Whilst these aren't National Statistics currently, ONS did improve these considerably. Consequently, ONS made a change to the methodology in December 2018, using the Barbour data in an alternative way and using actual start dates and actual durations for the larger projects.
- The OSR approved of these changes, but still felt there was a way to go and hence didn't consider these statistics for re-designation. ONS plans to do more work on these, given that they are publishing them and have made improvements, though they are not the most pressing priority currently. Ole encouraged users to continue using ONS's statistics, as although not all are National Statistics, they have still been improved compared to a few years ago.
- The OSR voiced a further query concerning improving understanding of the differences in ONS construction and new orders data. ONS did some analysis on this and produced an article – as there are several reasons one might expect the two to be different. One of the things OSR looks for when there are different data sources is why there might not be the expected coherence between them.
- The final area - use of VAT turnover within these statistics – wasn't one the OSR had asked ONS to look at but was one ONS chose to look at themselves. ONS has had access to VAT data for some time and has used VAT turnover for the previous two years. A number of articles about this have been published.

iii. Current / future development plans

- Through the work ONS did to achieve re-designation, areas where users were interested in further developments were revealed.
- Within National Accounts, there are figures on private housing and construction that often don't align with what ONS publishes. ONS published an article in May looking at the two different sources.
- ONS are continuing the work into new orders and this will be shared going forward. Something ONS wants to do is evaluate how well changes to imputation have worked, given the way the economy has changed.
- One thing users have expressed interest in is comparing what ONS produces in the short-term on construction output and information in the Annual Business Survey. ONS aims to publish an article explaining the different sources and why they might be more coherent than they seem.
- ONS is looking to fill gaps – for example in Product Information. The 'ProdCom' Survey has existed for many years, which looks at products in the manufacturing industries. This large survey has 20,000 contributors and a large amount of detail about products. Until 2 years ago ONS has not collected anything similar for the services industry, so decided to start a new survey – originally called 'ServCom' – but now called the Annual Survey of Goods and Services. A first set of results was published in the summer of 2018. In September 2019 ONS expects to publish again. There is a gap in that this survey doesn't cover the construction industry, but the aim is to move to an 'AllCom' where the whole economy is covered, to fill in these gaps. There isn't a formal timetable for this, but there is a possibility of doing this on 2020 data which will be collected in 2021.
- ONS continues to publish regular articles, including the annual article, which has become shorter and punchier. The next one is due in October 2019.
- In the longer term, ONS plans to transform their short-term statistics. A programme of work has started on distribution trades, taking it through from collection, to use of VAT data, better methodology and better platforms. As this is a 'root-and-branch' method of working, it has to compete with other priorities. As such ONS is a way off from transforming construction statistics.
- Ole explained that ONS meets with devolved administrations on a quarterly basis to discuss a key topic each time. At the last meeting in Edinburgh in April, the topic was construction. Although no big changes came as a result of this, ONS plans to discuss with them on a more regular basis and perhaps have a forum for this.
- There is work going on in Eurostat. Jacob Hamblin-Pyke attended a taskforce in May 2019 on commercial real estate indicators. This can be tricky because the way they are collected and used can differ between member states so Ole doesn't expect anything will materialise quickly from this.

Questions

- Brian Green asked a question about using VAT for monthly sectoral updates on GVAs. He asked for clarification on how ONS was using this. Ole replied that ONS are using it currently on the output side, and in time they might do more on the expenditure side, but there is no immediate change in the way they are using it. He confirmed that ONS is using it for some of the construction industries and size bands and have been for the last couple of years. ONS does not plan to change the industries or the size bands.
- Brian asked if ONS planned to use the VAT data at a regional level to help shape the data. Ole responded that the area there will be a change on is regional statistics. There was some discussion about the launch of this new work, which Ole confirmed will be in September.
- Brian mentioned the problem between site-based vs. enterprise-based data which is incompatible and wanted to know if ONS had any plans to nuance the regional data. Ole said there are challenges, including the apportionment, and the need to constrain UK GVA so it is the same as VAT. Ole explained that Scotland produce their own estimates and confirmed that there will be a regional GVA for construction going forward.
- James Hastings asked if the GVA information will be broken down by SIC code. Ole responded that it will not - it will be at a higher level overall (Section F).
- James Hastings mentioned that ONS produces GVA statistics for regions but they lag by almost two years, so he wanted to know if the ONS long term intention was to replace this with this more up-to date data. Ole replied that it was more a question of how you benchmark to that. He confirmed that ONS does not intend to revise what they publish for annual GVA.

- Noble Francis made two points about infrastructure. He firstly commented that splits for the subsectors for the main sectors are done using new orders and asked if ONS has a process in place to deal with major contracts (and subcontracts) where they are placed on hold, or if they are sent for re-tender.
- Jacob Hamblin-Pyke explained that for re-tendering, there is a process, and for projects on hold ONS has a flag that they can apply to a project if they receive information from Barbour that a project has been put on hold or put for re-tender. This does require manual intervention - ONS doesn't have a way of automating this process. Particularly for large projects, they will be checking that all contracts are on track each quarter.

- Noble's second point concerned how ONS deals with the fact that new orders are more volatile. He gave the example of Thames Tideway – observing that from the outside it looks odd – between 2015 and 2017, output doubles, but output is 31% lower than it was a year ago on what is a major project.
- Jacob replied that this is inherently a vulnerability of the model, since new orders are relied upon for indicators on what the split is likely to be in output. ONS is considering what improvements could be made to this.
- There was continued discussion about the odd results where they are based around contract awards and major projects.

- Jacob mentioned that, regarding rail, ONS has been monitoring Crossrail and HS2 work very closely. ONS is happy that everything going into the model is representative of the work being done.
- Frances noted that infrastructure is the confusing sector at the centre of this issue.
- Noble commented that CPA members, who are primarily product manufacturers, use this forecast data to plan, hence the volatility makes a large difference to them. He gave the example of companies that make asphalt, highlighting that this is a clear example where the data appears to not make sense. He recommended that some secondary sources are consulted as they will contribute some back up evidence. There was some further discussion about this.

4. Market capacity in road and rail sector - financial statements of leading firms – Alex Murray

Alex introduced his presentation by explaining that he had been asked to look at finding statistics and insight on what different parts of the construction industry's capacity was. He explained that he used Financial Accounting Made Easy (FAME) to do this, in the first time using it to look at a discrete sector, in this case, road and rail. He planned to talk about context, methods and sampling, results and conclusions.

i. Context

- When looking at industry capacity, Alex explained that one can consider the assets of a company, balance sheet, and stocks of financial capital that the company uses to finance the ownership of these assets. One could also look at margins – turnover is the basis for looking at profitability, which drives investment decisions and determines long term capacity in a sector.
- Alex described how he used the three part Du Pont equation to break down the determinants of profitability and also consider productivity with turnover as output and total assets as input. When multiplied by total assets over K (K = capital employed = debt + equity), this becomes what is known as 'current gearing'. This is the ratio that many contractors make their returns on, as they finance a higher value of total assets by paying late, using a lot of current liabilities and supporting a higher asset base than other companies. Alex explained that he analysed some of these ratios.
- Alex described the 'Make-Buy' framework. 'Make' firms are companies that do work in-house, add to the economic value, and thus typically have higher margins. Lower down the supply chain, they produce products and sell them up to higher tiers in the supply chain. It is their output that becomes the intermediate output that tier twos and tier ones buy and then sell on to the client. On the other end of the spectrum, 'Buy' firms as typical tier ones and tier twos.
- By using their financial ratios, one can see where companies are on the 'Make-Buy' continuum, which is fundamental to understanding their capacity.

- This has an important overlap with the financing of companies because a tier one is predominantly a 'Buy' business model that subcontracts all its work and is thus able to finance most of its balance sheet through delayed payment to its suppliers. This cannot be the case for a 'Make' company, which is buying lots of its inputs from different types of companies that don't wait for payment or rely on labour input predominantly, which needs payment more promptly than other suppliers. 'Make' companies also tend to be smaller companies. As they are not as economically powerful, they are less able to negotiate favourable payment terms with their suppliers. Part of the reason some contractors become very large is because they pursue intensive 'Buy' strategies to grow their turnover quickly in a short space of time.

ii. Methods

- Alex described how two approaches were combined to reach a sample. One was based upon using company SIC codes – looking for 421 (the road and rail SIC code). However, not all companies accurately allocate themselves to industries. So, this first approach was supplemented with a search strategy that looked for key terms in a company's trade description. The results of those two samples were combined, which meant that important contractors were included that were very specific to road and rail but didn't have 421 as their primary SIC code.
- This resulted in a sample in the latest year (2017), which contained 89 firms for certain variables. Though not large, this was enough to look at variance and the differences between business models. In the earlier years the sample size is much lower, which affects the validity of looking at the trend over time.
- Alex explained that they tried comparing the sum of turnover and the sum of employees in the sample to that under category 42.1 in the Annual Business Survey (ABS.) However, looking at the breakdown of the three digit levels in ABS reveals that about 60-70% of output for category 42 is in subcategory 42.99, i.e. 'not elsewhere classified'. For this reason, a comparison can't be easily done.
- Looking to compare the sample with the higher-level category 42 in the ABS, Alex found that the combined turnover of the sample in 2017 was just over £4 billion, compared with £50 billion for section 42 in the ABS turnover. Thus, the sample covers roughly 8% of turnover.
- Looking at employees, last year's sample employed about 19,500 people which is about 8% of the total civil engineering workforce. A 'guestimate' would be that the sample represents about 35-50% of the road and rail sector specifically.
- Considering the top 5 companies by turnover - the largest company has a turnover of about £430 million in 2017 and the 5th largest has a turnover of about £220 million. The largest company has a margin of 6.76%. One value that jumps out for a particular firm for 2017 is the turnover on capital ratio of 17.1. This ratio is a good proxy for over trading on the balance sheet.
- Alex showed some graphs looking at profit margins against turnover per employee, which is a good proxy measure for position on the 'Make-Buy' continuum. He used

these to discuss the different characteristics of 'Make' and 'Buy' firms. Most of the big firms are down below a 5% profit margin whilst a few are up at 15%.

- The median return on capital employed in the sample was 26% in 2017.
- Next, Alex discussed measures of labour productivity. Remuneration plus Profit Before Interest and Tax (P BIT) divided by the number of employees is proxy measure of net value added per employee. Most firms are below £80,000 of this measure.

iii. Results

- Alex discussed the change in sample size over the years. In the last years of this analysis on margins, the sample consists of 89 firms. However, the sample reduces further back in time such that in 2000 the sample is only 30 firms. These 30 will more likely be larger firms that have been operating for and hence reporting financials for longer. Their size would have meant that they met reporting requirements back at the point of sampling.
- When sampling firms, it becomes clear that there is an inherent 'Buy'-bias in availability of accounts, as it's through a 'Buy' strategy that a company grows its turnover, which grows its asset base and employees. This causes it to rise above the threshold for reporting accounts. Accounts are therefore not ideal for looking at the industry in total, but for looking at companies that pursue 'Buy' models. Alternatively, it may be the case that 'Make' companies have done well for many years thus have built up an asset base that means they do have to report accounts.
- **Weighted margins**: over the period for this set of firms, these have increased markedly from about 2.24% to 4.77%. By the end of this period, they are closer to 5%. Interestingly, the weighted margin reduced before the financial crisis - peaking in 2005 and reducing before the Global Financial Crisis (GFC). This is possibly explained by increased competition from European contractors coming into the market before the GFC, pushing down margins, or possibly by poor sampling. The median margin stays quite static, and the last few years have seen a marked growth in median margins and weighted margins. From a capacity point of view this suggests there is not slack in the industry.
- **Asset turnover:** There is some movement over the period, but the relative swing over the period is not nearly as much as in margins. The median value since 2009 been very stable. Alex discussed the variation between firms in asset turnover.
- **Current gearing:** this shows the extent a firm uses current liabilities to finance its balance sheet. This seems markedly stable, with a slight long-term decline.
- Considering the first few analyses discussed above, margins are quite volatile, whereas asset turnover and current gearing are quite stable over the period. This suggests that contractors might see these as static targets. They may operate their businesses to keep these concepts static, then adjust their margins to affect their chances of winning bids and adjust their cost structures to try and keep a positive margin.
- **Return on capital employed (P BIT on K):** this follows the profile of margins, which is the coefficient in the determination of return on capital employed.

- A key question to consider is how an increase in the return on capital employed in recent years for firms will affect inducing new investment in them. Will the profits made after tax and interest be retained on the balance sheet, because they are pursuing more contracts and trying to price more competitively to win more work in this more profitable sector, or are they distributing all their net profits as dividends, in which case that's a gloomier picture for capacity?
- There is a similar profile for return on shareholders' funds – this is the true net profit concept of profitability after tax and interest – one can see return on capital employed and return on capital are very similar.
- **Remuneration relative to cost of sales:** this shows the cost structure of a firm. The higher the remuneration relative to cost of sales the more likely a firm is to be 'Make', because it employs the labour directly. This statistic is around 30% at the beginning of the period but as time goes on this is reduced. This is especially the case for the weighted measure, which suggests that some of the largest firms may be becoming more 'Buy' in nature. There are some firms in the sample that have 60% of their cost of sales in some years as remuneration, whereas for other firms it is closer to 10%.
- **Turnover per employee, adjusted for inflation**: this is a proxy measure of productivity. A common message heard in construction is that productivity has flatlined. Interestingly, it was flat before the GFC as well. There has been some slight improvement in recent years. It is unclear why the reduction came before the GFC. One explanation, put forward by Marco Yu, is that this is due to an increased proportion of 'Make' firms entering the sample at particular points, which would reduce the turnover per employee. This highlights that there is work to do on understanding how the sample characteristics change over time and hence affect the trend metrics.
- **Remuneration per employee, adjusted for inflation:** this builds up from early 2000s, reduces before the GFC and then appears to increase. The last few years have seen slight increases. One would expect remuneration per employee to increase if capacity was short because that indicates a skills shortage. Looking at 10th percentile, one can see a consistent increase from 2010. There is some discussion around whether this is due to minimum wage legislation.
- **Labour productivity, using net value added:** this is remuneration plus PBIT per employee, and is another proxy measure of productivity. This appears to track turnover per employee – it is highly correlated.
- **Creditor days and payment practices:** trade credit and accruals are taken from the balance sheet and compared as a ratio to turnover multiplied by 365. This is a standard way of calculating how long a company takes to pay its suppliers. The weighted measure is relatively flat over the period, standing between 55-60 days. Using the median measure, one can see that smaller firms in the sample post GFC have started to pay more slowly as well.
- Alex explained that in work he did with Graham Ive six years ago, they asserted that the standard measure of creditor days isn't always appropriate because of the need to adjust for the proportion of costs a firm incurs that go out to pay to other businesses. Currently, the standard measure doesn't incorporate, for example, how much of a firm's

costs are paid to staff as remuneration. In response to this Alex and Graham developed an adjusted creditor days measure. A 'Buy' company, which grows its turnover more quickly, looks better on the standard metric. Adjusted creditor days is hence a 'Make-Buy' sensitive version of creditor days. Looking at the adapted measure one sees that it is closer to 100 days in pre-GFC period but in recent days has crept down to 85-90 days. Some of that reduction is due to pressure from clients and governments.

iv. Conclusions

- Profitability has increased considerably in recent years. This is due to improved margins rather than companies financing more assets with more current liabilities. This suggests there isn't a lot of slack in the industry and that to deliver more output, firms will need to invest in capacity. Prices might therefore continue to increase to support increased capacity.
- A key question is: what do companies do with their net profits? They may keep them on the balance sheet as retained cash to support their productive output, or they may be still distributing them to shareholders as they did 5 - 6 years ago. If the latter, this is bad for capacity.
- Finally, Alex mentioned a few things he would like to do in the future. Firstly, a study of plant hire firms. This would involve isolating 20-30 of the leading plant hire companies, who should provide good financials. There is a lot of technical guidance in the Cabinet Office Outsourcing Playbook about how to consider suppliers' financials and monitor their profit losses and balance sheets more successfully. He also intends to continue to download FAME data.

<u>Questions</u>

- Brian Green asked if Alex had considered the relevance of Merger and Acquisitions (M&A) of firms within the data and wanted to know if you might get distortion in a company moving from 'Buy' to 'Make'. Alex wanted to clarify if Brian meant that he should look for a company that, for example, doubles its turnover from one year to the next.
- Brian responded by saying that it is about the nature of the M&A, commenting that 'Buy' companies may well wish to go further down the supply chain because they get more control, so there might be a different management move going on. He also mentioned the impact of legislation on payment terms – there might be hot spots when the public finds it too outrageous to allow a firm to continue paying late, which presumably has a behavioural impact on businesses and their financials. Aligned to that, he added that retentions and the level of disputed payments would be interesting to look at. Also, looking at plant hire, how they finance purchase of their kit, as a lot of that is 'weird'.
- The difference between gross and operating margins in the 'Make-Buy' framework was discussed. Alex commented that you can use margins, but it depends on what some of

the ‘Buy’ intensive firms call ‘administration expenses’ as representing their ‘fixed costs’. It is somewhat arbitrary what accountants do. Alex confirmed that Brian was correct on the difference between P BIT and gross profit but pointed out that there are many ratios one could use to that effect.

- Brian asked if there was potentially a public interest to try and expose the unusual ratio of 17.1 that Alex had mentioned (see ‘Methods’ section of Alex’s presentation). Alex responded that accounts are in the public domain.

- Noble made a remark about merchants. He pointed out that one needs to take account of those given that the analysis is being carried out over time. If the assumption that there’s a static proportion of capital employees is being made, then if this is not met that may affect the analysis.
- Noble made a second point about increased margins. He commented that given that road and rail are being scrutinised, there could be a greater proportion of larger projects in which there is higher demand within a small geographic area at a particular point in time which boosts demand particularly on the labour side. Creditor days is not an appropriate metric for many reasons, but there are multiple ways of gaming the system from a tier one point of view. Noble asserted that anything caused by minimum wage legislation or ‘pushing up’ as a result of minimum wage is more likely to be services related.
- Steven Gruneberg made the point that this is a framework based on ‘Make’ or ‘Buy’, and there are other options. There are also intermediaries involved. For example, profit before interest and tax doesn’t appear when a new supplier is introduced and an intermediary comes in. Could one do a fundamental research of the road and rail sector, he wondered, to show how intermediaries are now being used?
- Alex replied to say that one could look for the largest firms, showing Profit and Loss (P&L) lease fees. Steven pointed out that they may not be leasing, and Alex explained that they could be paying a subcontractor who themselves lease. He also stated that an important long-term aim is to get a clearer picture of supply chain linkages, though conceded we are many years away from developing this.

5. Measurement of the wider construction industry – Frances Pottier

Frances introduced her presentation by explaining that it followed from a topic Brian had raised at a separate meeting: satellite accounts.

Big construction
v2.pptx

i. Big Construction at BEIS

- BEIS refers to the wider construction industry as ‘Big Construction’ (some may call it ‘Wider Construction’ but this may be slightly different). This is an estimate of the total size of the wider sector including products and services. It reflects the responsibility of the team Fergus Harradence leads at BEIS, which looks at policy around the construction sector.

- The decision to include specific products and services within Big Construction was based originally on purchases data. ONS are now collecting purchases data again, so BEIS could re-visit this although it's unlikely it would change the original decisions much.
- BEIS published the definition and some data based on it in a report in 2013 and have used it subsequently in the construction sector deal and in the EU exit sector analysis on construction. A link to the definition can be circulated after the meeting.
- BEIS compiled the estimates using published annual business survey information. Frances showed a picture at this point of the SIC codes BEIS includes.
- Something to note about plant is that it appears twice in the SIC classification. It can be part of construction or vehicle hire. Businesses used to switch between them depending on what they'd done that year, so one had to add them together to get a picture of the sector.
- Frances showed some figures of what this looks like. The small 'dink' at the end is due to ONS including PAYE only businesses in the ABS. Previously, they had only included enterprises which had a VAT record.
- Looking at turnover, not adjusted for inflation, one can see the GFC at the start. Contracting is the sector that drives it. Employment has a slightly more interesting shape, and one can see the reduction in products influences the total that happened after the crisis.
- Looking at approximate GVA: this is roughly 8.5-9% of the economy whereas contracting itself is about 6%.

At this point Frances handed over to Ole to explain what ONS currently do for some other sectors in terms of satellite accounts.

- ONS has satellite accounts in three different areas: Environment, Tourism and Household.
- **Environment:** this looks at the impact of economic activity on the environment. For Environment there is a UN system of economic and environment accounting and there are European regulations around it. Since these are international, there is more international comparability.
- **Tourism:** this account followed later and looks at the contribution of tourism to the UK economy. In a sense, this account is like Big Construction as it requires gathering data from a variety of sources, industries and areas that contribute to Tourism, to form a definition of Tourism.
- **UK Household**: this account incorporates activity that doesn't show in GDP, including activities that could alternatively be performed in the market. ONS has been developing this in recent years.
- There isn't a one-size-fits-all approach for satellite accounts and producing them tends to be a lengthy process. Ole stressed that ONS doesn't currently have plans to produce them for construction. If ONS was to produce one, thought would need to go into which

industries and which parts of these industries would form part of it. ONS is, however, aware of the interest in a construction satellite account from CCCIS meetings.

Questions

- Brian commented that the idea behind a construction satellite account would be to look at the built environment rather than necessarily at construction. He mentioned that a measure of construction's productivity can depend on classification, which could lead to paradoxes such as the productivity of construction and manufacturing appearing to decline, despite the UK is producing things more productively overall. The most important thing would be to have a standard concept, such as the 'Broader Construction' sector and a standardized set of what this included. It would be ideal if this could be done through ONS. He added that as we move more offsite, construction is in a sense residualizing. The case for a Broader Construction sector account is exceptionally strong and urgent, otherwise construction will be mis-represented in the headline data and that will lead to poor policy making.
- Frances mentioned that DCMS have a Creative Industries account.
- Ole responded that the challenge is achieving agreement on what should be included in the account. ONS wouldn't be placed to form a definition. He suggested BEIS could explore this.
- Frances replied that BEIS could look at it. Currently, BEIS is using published ABS information, but that does mean there are some sectors (such as cement) where the ABS information is suppressed because of the small number of businesses in the survey. If one wanted to look at an estimate properly, one might not be able to break it down as far as one might like because of the need to suppress to avoid disclosure.
- Noble added that the bigger issue is whether there are more likely to be structural changes, as things move towards 'servitisation'. In terms of a Big Construction definition, what would be done about the fact that many products have multiple uses in multiple sectors? For example, steel production has three main uses, one of which is construction, the others being engineering and automotive.
- Frances replied that this goes back to the original purpose which was to make sure every product had a team in BEIS responsible for it. There may be cases where overestimation occurs but others where they are not included. These decisions were taken on purchases data from 10 years ago and now that ONS are re-running the survey it may be that some of those decisions would be slightly different now.
- Ole pointed out that if and when there is an 'AllCom', that will give more information about other industries.
- Brian brought up the difficulties around facilities management. Where would one classify data sectors within the construction, he wondered, and where would offsite manufacturing belong? These things will have large impacts and spikes in the data, or lack of spikes – potentially leading to the wrong interpretation of construction statistics.
- Noble commented on offsite manufacturing, stressing that being able to separate it out as a category is vital, given that over time it may or may not become a much bigger proportion of construction.
- James Hastings wondered about pop up manufacturing and how one might capture that.

6. Any Other Business

i. Frances reminded everyone that the ONS PPI consultation closes today.
ii. James Hastings raised the point that there seems to be an issue with the rebasing of new orders data. If one looks at the published data, the index has been based on 2016 but the volume data is still based on 2005. Jacob and Ole said they would investigate this.
iii. Noble had a request from a member of CPA who is looking at the housing sector. This member wanted to know if there was anyone that produces a list of the housing frameworks across the UK. Different regions have different housing frameworks and he did not know if anyone had collated them. There was some discussion about what housing frameworks are. Most local authorities are tasked with producing a framework for future housing need – effectively local plans. However, there are roughly 430 local authorities producing plans and there doesn't seem to be a central repository for them. Frances asked anyone who thought of the solution to this to let her or Noble know.
iv. Alex mentioned that he finally had the updated Private Finance Initiative (PFI) list. He said a lot of work had been done on this to improve information on who owns the Special Purpose Vehicle (SPV).