






Scottish Government

Economic Development Directorate

Retentions in the Scottish Construction Industry

April 2019

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Definitions

Retentions

A retention is a percentage of the value of a construction contract which is held by the client as an assurance of project completion and as a safeguard against defects which may come to light and which the contractor may fail to remedy.

The construction contracting industry

Includes the following SIC codes as used in this research to define the sector:

41 - Construction of buildings

42 - Civil engineering

43 - Specialised construction activities

Size of Company

Large - More than 250 employees

Medium - 50-249 employees

Small - 10-49 employees

Micro - 1-9 employees

Tiers

Main contractors with a direct commercial relationship with a client are classed as Tier 1.

Subcontractors and suppliers with a direct contract with the Tier 1 main contractor are classed as Tier 2.

Subcontractors and suppliers working for subcontractors are classed as Tier 3.

Executive Summary

As a sum of money withheld from the contractually-agreed amount due on a construction project, the purpose of a retention is to mitigate risk should some of the work not be completed satisfactorily, or any resulting defects not be rectified by the contractor.

In Scotland, as across the rest of the UK, the retention amount (typically 5% of the contract value, although often 3% in projects worth over £5 million) is intended to incentivise contractors and subcontractors to return to correct any defects that arise during the project and within the defect liability (maintenance) period. The defects liability period is typically 12 months after practical completion, although it is often programmed to extend beyond this period depending on project type and complexity and sometimes extends beyond it for other reasons.

It appears to be becoming more common for contracts to include a longer defects liability period.

The construction sector supply chain starts with the client (for example, a national retailer or Scottish government, who engages a main (Tier one) contractor, which then will probably commission subcontractors at Tier 2 who in turn may also do likewise at Tier 3 etc, down the chain as far as necessary for the construction work to be delivered.

This research has found that the retention system works reasonably well when all parties adhere to the letter and spirit of the arrangement.

Companies providing construction services believe, however, that some areas could be improved.

The protection of retention money and the temptation afforded to those imposing retentions not to return them are some of the key concerns.

The financial consequences for contractors and subcontractors in the event of a large organisation going into liquidation, is regularly cited as a major impact of the way in which the current retention system operates.

The majority (66%) of construction firms in Scotland are not involved in the retention system either as “imposers” of retentions or as those subject to retentions. A significant proportion of those that are involved in retentions are subjected to them and impose them on others.

Although a difficult undertaking, this research has estimated the value of retentions at any one time in the Scottish construction sector at around £124m with half being released at practical completion and half at the end of the defects liability period.

Construction sector clients tend to be more in favour of the system of retentions than contractors and the further down the supply chain one goes, the less favourable companies are towards the system.

A significant proportion of companies say they deliberately avoid business in which retentions are involved.

The system operates to the clear advantage of clients and Tier 1 contractors but to the disadvantage of medium and smaller companies.

Although it was outside the remit of this research, a reasonable amount of anecdotal evidence emerged that retentions may have a small unintended impact in inflating construction quotes. Some companies admitted that they boost their quotes to take the retention percentage into account and then deliberately fail to claim the money back at the end of the contract.

It is unanimously agreed that some form of assurance is necessary in construction contracts.

Alternatives to common retention practice are available but they tend to be used infrequently. They include performance bonds, retention bonds, and escrow accounts. At present it seems that alternatives tend to be used in addition to retentions rather than in place of them.

There is no doubt that the system of retentions is often abused and that the system can create significant problems for smaller businesses should there be insolvency further up the chain. Because retention money is almost entirely kept in the organisation's main bank accounts, the funds are extremely vulnerable should the organisation become insolvent - with often serious impacts on the supply chain.

Medium and smaller businesses believe that the practice of retentions in its current form inhibits their business growth, causes a drag on cashflow, weakens relationships, and reduces investment.

These businesses argue that there are two financial motives for larger companies to abuse the system: to secure cash flow, and to protect their own market position by limiting the cash available to possible competitors further down the supply chain.

Companies who reported "abuse" said that, in practice, it could involve 'nit-picking' over defects, delay tactics, or refusing payment without sufficient justification.

Retention money held in a main bank account can be used by the holder to fund expenditure on labour, plant and materials on other projects and/or as part of the working capital of the business.

The onus in commercial construction contracts is for the company being subjected to a retention to take the initiative to claim it back. This is seen as having administrative costs by taking up finite staff time. The amount to be returned is often subject to negotiation and therefore uncertain, which can damage working relationships, and make cash flow predictions and related business planning, continuity and investment extremely difficult.

There is strong reason to accept that the system of retentions is not working to the advantage of the Scottish construction sector.

There is, however, no compelling evidence that its costs are sufficiently onerous as to mandate significant action towards alternatives.

The most compelling reasons for change are not commercial or economic but those of efficiency and fairness. Smaller construction companies have no sense that the system will operate consistently and there is clear evidence that a significant proportion of retention money - around 13% - never finds its way to the sub-contractors to whom it is due.

The Scottish Government is already taking action in the public sector to improve payment practices. We would recommend that a fairer, more neutral and more protected approach to retentions be

required by the Scottish Government. This will meet many of the reservations of medium and smaller construction companies where they are dealing with the public sector.

In the private sector a requirement to keep monies in a protected place would meet almost all of the serious criticisms of the current retention system.

1 Introduction

1.1 Background

The retention system is a long-standing practice in the construction industry throughout the UK. A retention is money withheld from payment of a construction project. The purpose of a retention is to mitigate the risk of a failure to complete a construction project or a failure to rectify defects. The part of the contract sum which is held back is intended to provide a means of incentivising contractors and subcontractors to return to correct any defects during a specified period of time or to provide towards a means of funding the procurement of another contractor to do so if necessary, as outlined in contract terms and conditions.

In most cases a retention is imposed by the client employing the main or Tier 1 contractor and this is mirrored in all subsidiary contracts throughout the supply chain.

Typically, 5% of contract value is retained up to the point of practical completion of the work, at which point half of the retention is released. The remaining 2.5% is held during what is known as the “defects liability period¹” (for which the timescale varies, according to how it is defined on a contract-by-contract basis). Most commonly this is 12-months for building contracts, sometimes longer for civil engineering projects. In theory, the contractor has a financial incentive to remedy any defects that may arise during this time.

The theory of retention proposes that they incentivise the contractor to comply with the delivery parameters of the construction project (notably quality) efficiently and productively. The contractor and subcontractors have their initial retention payments released on the basis that practical completion is achieved to the specified quality standards on a timely basis. The use of retentions also acts as an incentive for a defect-free project at the end of the defects-liability period.

In practice, there is evidence to suggest that subcontractors (Tier 2 and 3) experience a drain on cash flow and working capital due to the withholding of retention monies. This may be compounded by issues such as overdraft fees and limited access to finance, as well as additional administrative time and costs expended in retrieving retention payments. Whilst held by higher-level contractors, retention finance can often provide a useful element of cash flow and even be used as working capital.

The Construction (Retention Deposit Schemes) Bill², also known as the “Aldous Bill”, which seeks greater assurance in the protection of money from the insolvency of main contractors and clients, is due to go to second reading in the House of Commons, however, this has been delayed due the primacy of Brexit on the political agenda³. This Bill if enacted would not however automatically apply to Scotland given that power to legislate for such matters is devolved to the Scottish Parliament.

¹ This is referred to as the maintenance period in the civil engineer sector.

² <https://publications.parliament.uk/pa/bills/cbill/2017-2019/0148/18148.pdf>

³ <https://services.parliament.uk/bills/2017-19/constructionretentiondepositschemes.html>

The financial ramifications for contractors and subcontractors in the event of a large organisation going into liquidation, (e.g. following the Carillion liquidation in 2018⁴) are potentially one of the disadvantages of the ways that retention payments deducted from subcontracts are commonly administered by main contractors as a means of meeting their assurance obligations to the client in construction work.

With all this in mind, the Scottish Government is seeking to gather evidence about the practice of retentions in Scotland's construction sector, to inform policy-making and to improve sustainability and investment. Alongside this, the Scottish Government aims to understand what alternatives to retentions exist and how these operate in practice.

The interpretations of information collected as part of this research, and the views expressed in this report, are those of the research respondents and Pye Tait Consulting, and not those of the Scottish Government.

1.2 Research aim and objectives

The main aim of this research is to provide a qualitative and, where possible, quantitative assessment of the costs and benefits of the contractual practice of holding retentions, and of alternative mechanisms, under construction contracts in Scotland. This assessment is required to identify actions and approaches in construction contract assurance that would aid the Scottish Government in creating a stronger and more sustainable construction sector in terms of jobs and investment within the industry.

The objectives for this research are to:

- determine the extent to which retentions are used, as well as the rationale and legal position in relation to their use, highlighting their advantages and disadvantages;
- assess the costs, benefits, and other impacts (direct and indirect) of the use of retentions on the construction sector and (where possible) on the economy as a whole (i.e. micro and macro levels);
- identify the alternatives to retentions and the rationale for the use of these possible alternatives, highlighting their advantages and disadvantages; and,
- ascertain the costs and benefits (for the construction sector and economy as a whole where possible) of alternatives to retentions should these be implemented more widely across the Scottish construction sector.

4 <https://www.constructionnews.co.uk/companies/contractors/carillion/catastrophic-losses-carillion-retentions-crisis-looms/10027070.article>

1.3 Research methodology

The research used a mixed-methodology, combining primary research gathered from a sample of construction sector clients, main and subcontractors, and from stakeholders in the construction industry in Scotland, with secondary desk-based data gathering and analysis. This report is based on the following data, gathered, analysed and triangulated for the purpose of this research:

- desk research of literature on the practice of retentions and assurance methods (secondary qualitative data obtained between December 2018-February 2019);
- a round table discussion attended by 12 industry stakeholders in Scotland including a mix of clients, main and subcontractors, academics and trade federations/professional bodies (primary qualitative data obtained in January 2019);
- eight in-depth telephone interviews with a mix of stakeholders in Scotland unable to attend the roundtable (primary qualitative data obtained between January-February 2019);
- a survey of 388 contractors in Scotland (primary quantitative data obtained between December 2018 - February 2019); and,
- a survey of 100 clients in the construction sector in Scotland (primary quantitative data obtained between December 2018 - February 2019).

Where the report refers to findings in relation to the last three years, it means, for both contractors and clients, the period from the beginning of financial year 2016/17 to January 2019.

There are limitations concerning the results for certain survey questions which asked for a quantitative value. Subsequent interviews revealed that some respondents had reservations about providing accurate data - for commercial and privacy reasons. This means that some of the data may not be wholly statistically representative. Further details on other research limitations are provided in Appendix 2.

In addition, the limited number of clients and contractors in Scotland engaging with this research means findings should be considered indicative rather than statistically robust

Recruitment of round table/interview participants

A longlist of potential participants for round table discussions and in-depth telephone interviews was compiled by Pye Tait Consulting, and shared with the Scottish Government for review, amendment and sign-off. Participants were identified on the basis of their experience and expertise in the construction sector and in matters surrounding retentions. They were identified from desk-based research.

Sampling of clients

The sample for the client survey was restricted to 100 client organisations likely to be procuring large-scale construction projects. This approach ensured the best quality with more detailed responses about a wider range of projects. Comparable to the similar BEIS research in England that Pye Tait conducted, the starting point was to compile a list of construction sector clients by industries most likely to require construction work on a regular basis⁵ (as determined through desk-based research).

It was not possible to determine what constitutes a representative sample of construction sector clients using retentions primarily because these clients are likely to change on a year by year basis and, furthermore, a simple numerical balance of client type, even if possible, would not necessarily be representative in terms of the amounts of money involved or their likelihood to use retentions.

The sample was therefore selected at random and recruited from business intelligence database Mint UK, with a response rate of approximately 2%.

The breakdown of client organisations for this study (Scotland) and our 2016 research for BEIS in England, was as follows:

Table 1: Client respondent percentages

Client Industry	Scottish Government Report in 2019	BEIS report in 2016
Government Departments	1%	3%
Local Authorities ⁶	15%	56%
Housing Associations	30%	2%
Manufacturing	12%	<1%
Healthcare	8%	9%
Hospitality	6%	5%
Universities and Schools	5%	8%
Sports and Leisure	1%	1%
Retail	0%	1%

⁵ Spanning: central Government departments, local authorities, housing associations and arm’s length management organisations (ALMOs), registered providers, residential care homes, hotels, retailers, manufacturers, restaurants, universities, utilities companies, transport companies, sports/leisure and other public projects providers

⁶ The 15 local authorities surveyed include urban (4 LAs with 7 of the top twenty most populated urban centres), rural (8) and island LAs (3).

Other (incl. airports, transport companies and property and land management companies)	7%	16%
Commercial	14%	<1%
Utilities	1%	<1%

Sampling contractors

The population for the survey of contractors used SIC codes 41 (construction of buildings), 42 (civil engineering) and 43 (specialised construction activities) to identify the desired sample size.

According to ONS data, as of 2016 there were 19,124 construction sector businesses operating in these SIC codes in Scotland⁷. A total of 380 contractor interviews were targeted to provide a 95% confidence in the data (i.e. it is possible to be 95% confident that results would be the same had the whole population been surveyed), with no more than a 5% margin for error⁸. The number of contractors who completed an interview was 399, of which 388 contractors provided usable data. The response rate was 16%. The sample was selected at random and recruited from business intelligence database Mint UK.

⁷ <https://www.ons.gov.uk/businessindustryandtrade/constructionindustry/datasets/constructionstatisticsannualtables>

⁸ It should be noted the margin for error may go up or down, depending on the base number for individual questions. Where base numbers are low or where there is a lot of variance in the data this is flagged up in the text

2 Research Comparisons

2.1 The Scottish and English Construction Industries

This research - as illustrated in Table 2 - demonstrates some of the key consistencies and areas of divergence between Scotland’s and England’s use of retention payments (as revealed by survey participants).

Table 2: Comparison of The Scottish Government and BEIS research findings

	The Scottish Government research findings	BEIS research findings
Actively avoid using retentions	27%	20%
Frequency of use (client)	81%	65%
Frequency of use (contractor)	52%	78%
Retention amounts (client)	4.3%	4.9%
Retention amounts (contractor)	4.7%	4.8%
Defects Liability Period (typical)	12 months	12 months
Retentions held in client’s bank account	56%	87%
Proportion of contract value lost due to insolvency	2.7%	1%

Both sets of research support the generally-held understanding of retentions being around 5% of the contract value. Both also indicate that twelve months is the most common length of time for the defects-liability period.

In contrast it appears that a higher proportion of contractors in Scotland may be avoiding the practice of retentions for a variety of reasons including what they regard as risk, previous bad experiences, and the perceived abuse of the system by higher Tier contractors.

A slightly lower proportion of client retention-holders are holding money. The proportion of money lost in Scotland due to insolvency appears, however, to be higher than in England. It is possible that this is linked to the liquidation of UK construction firms such as Carillion (post the BEIS work of 2016) or that the risk of insolvency might be higher in Scotland than in England. Several of these apparent similarities and differences will require further research to better understand their role and causes.

2.2 Scottish industry and clients' view of retentions.

The overall perception of the practice of retentions is negative. Many recognise the system's role in protecting clients and higher Tier contractors from potential for poor quality work and the subsequent need to rectify latent defects. However, many interviewees feel that the system is poorly administered by all parties and open to abuse by some clients and higher Tier contractors. Some suggest that retentions are a tool that large organisations can use to protect market share.

“Holding retention money can protect market position as can lobbying by large contractors. Therefore, there is more pressure in the growth phase for businesses and retentions act as a barrier to entry to the market.”

Contractor (Operating as both a main and subcontractor), Roundtable event

In this context, the respondent feels that large companies use their size and resources to lobby influential people and organisations to “protect” what are perceived to be their vested interests in retentions.

Qualitative evidence overwhelmingly shows that the biggest problem with the practice of retentions is the instability it creates for contractors at Tier 2 and below.

“Stability of retention amounts is sustainable for contractors, it is the instability that causes a drag on cash flow.”

Contractor (Operating as both a main and subcontractor), Roundtable event

A key area of consensus amongst construction industry stakeholders who took part in the qualitative primary research⁹ is that protecting retention money and removing the ability of clients and higher Tier contractors to use it as working cashflow would help with several perceived issues. These include what are seen as lengthy defects liability periods, using retentions to stifle small business growth and protect the market share of the main contractors and reducing the risk and external stresses on small businesses.

Alternatives are rarely used and, in some cases, actively avoided. When they are used they are often in addition to a cash retention and therefore not true alternatives, details on alternative means of assurance can be found in section 7 of this report.

⁹ Through either the roundtable of an in-depth telephone interview.

3 Retentions in the Construction Sector

3.1 Definition

A retention is a percentage of the value of a construction contract which is held back by the contract issuer in order to assure against the contractor not delivering the specified build quality¹⁰.

Retentions can be held first by the client employing the main contractor and this typically filters down into all sub-contracted work on the project throughout the supply chain. The retention is retained from progress payments made throughout the length of the contract.

As mentioned earlier, retention payments are typically paid in two halves, the first on practical completion and the second following a defects liability period of around a year. The percentage that is retained and the amount of time for which it is held can vary substantially between contracts, depending on the project type, value, sub-sector, factors specific to a particular client, or method of procurement.

3.2 UK Retentions Legislation

Legislative changes mean that construction contracts across the UK entered into after 1st October 2011 can no longer link the release of retention to an act or event occurring under another contract (for example the main contract between the client and the top-level contractor). The release of retention must be triggered by a specific act or event within a subcontractor's contract. This is intended to eliminate the risk in relation to factors outside the subcontractor's control. In some cases, earlier links to other events in other contracts have been replaced by lengthy contract retention periods for subcontractors that lead to retention money being held by the main contractors for periods longer than the main contractor's own retention period as imposed by the client.

Retention is the main recognised type of assurance method in the construction industry in Scotland. But, within this practice, it is the holding of funds in an unprotected way that appears to create the greatest uncertainty for contractors that have retentions held on them. The Construction (Retention Deposit Schemes) Bill¹¹, also known as the "Aldous Bill", was launched in the UK Parliament by Peter Aldous, MP in April 2018. It aims to address this uncertainty by legally requiring that retention monies are only ever held in a separate deposit scheme and hence "protected" and unavailable for use by client or contractor.

¹⁰ In this context a client could also be a main contractor or Tier 2 subcontractor holding a retention from a Tier 3. Main contractors with a direct commercial relationship with a client are classed as Tier 1. Subcontractors and suppliers with a direct contract with the Tier 1 main contractor are classed as Tier 2. Subcontractors and suppliers working for subcontractors are classed as Tier 3.

¹¹ <https://publications.parliament.uk/pa/bills/cbill/2017-2019/0148/18148.pdf>

The Bill continues to be delayed with Brexit taking primacy in the UK Parliament but, if successful, it will then go to committee and will be subject to possible amendment.

It seeks greater assurance in the protection of money from events such as the insolvency of contractors (e.g. Carillion) when they impose retentions. The bill aims to provide greater protection from client and main contractor liquidation. It would also remove the benefits to clients and main contractors who might withhold payment, impeding medium and small sized businesses unconsciously or otherwise. The Scottish Government is currently helping to ensure that contractors and subcontractors working on public sector projects are paid fairly, promptly and within contractually agreed dates through project bank accounts¹². However, this is not replicated or enforced in the private sector.

¹² Construction Policy Note 1/2019

4. The Surveys

4.1 Contractors

The contractor survey, which formed an important element of the primary research for this study, was completed by 388 participants. Survey participants were asked to provide information on their business size and their position in the supply chain. Three contractors refused to specify their company size and/or other variables but the remaining 385 constitute a representative sample of the sector:

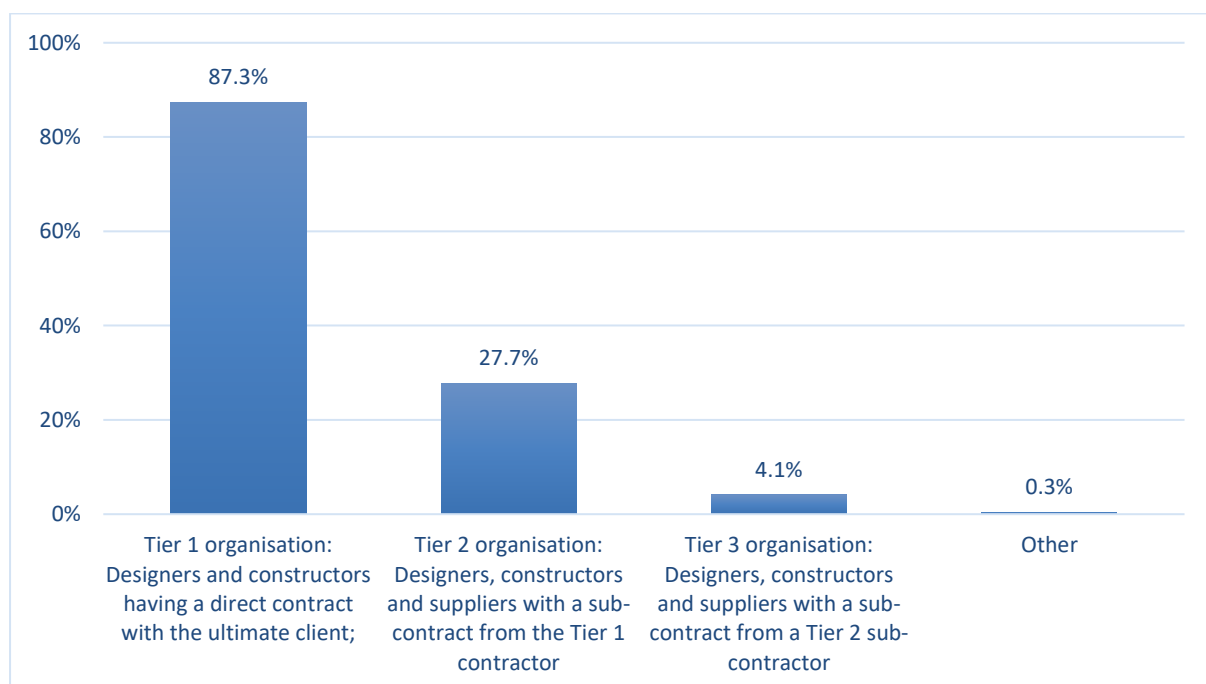
- 71.0% micro businesses,
- 16.6% small businesses,
- 9.3% medium sized, and,
- 3.1% large.

Contractors were asked to indicate their position in the supply chain as Tier 1, Tier 2 and Tier 3, and could choose more than one if applicable. They fell into those categories as follows:

- Tier 1 - 337
- Tier 2 - 107
- Tier 3 - 18

Business size and Tier are not clearly associated in the sample as businesses from all four size-bands were represented in all of the tiers. Respondents were able to feature in more than one Tier.

Figure 1: Contractor Respondents by supply chain position



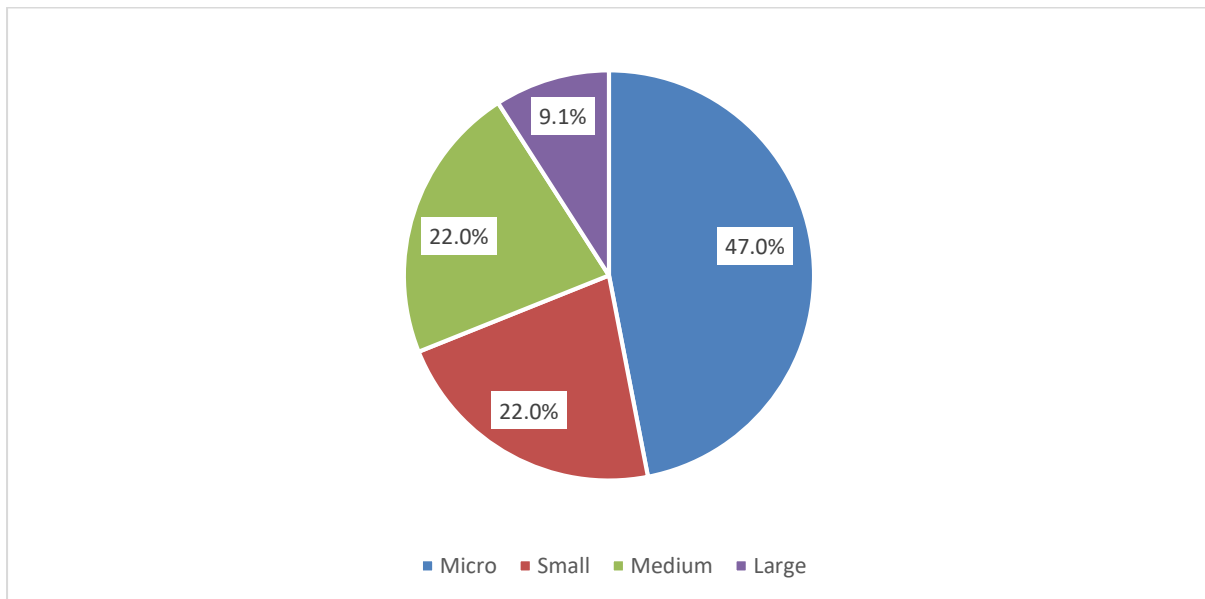
Base: 385 Pye Tait Survey 2019 (multiple answers could be selected)

The following percentages of the 388 respondents reported themselves as being involved in some way in retentions:

- Involved in some way - 132, (34%)
 - Of which:
 - Micro-Businesses - 62 (47%)
 - Small businesses - 29 (22%)
 - Medium sized - 29 (22%) and
 - Large - 12 (9%)

Larger companies are more likely to be involved in retentions than smaller ones. While micro businesses represented over 70% of respondents to the survey they formed less than half of the companies reporting that they are involved in retentions. Medium and large companies on the other hand represented just 12% of the respondents to the survey but 31% of the companies involved in the practice of retentions.

Figure 2: Contractors surveyed involved with retentions

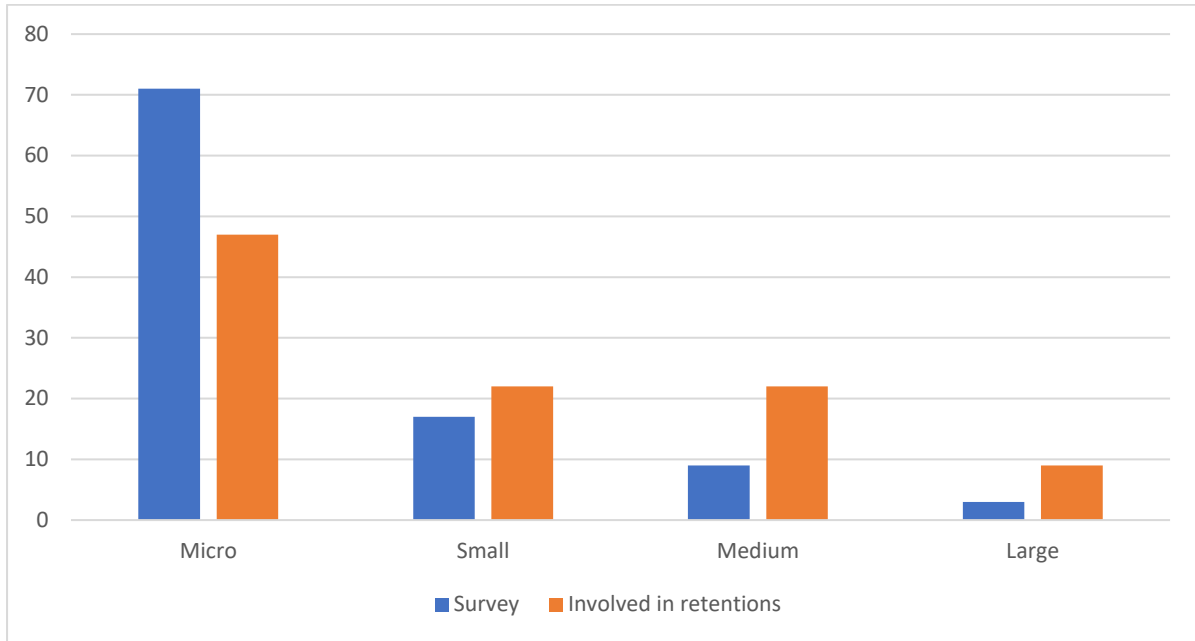


Base: 132 Pye Tait Survey 2019

Table 3: Compared: Size of Respondent against involvement in Retentions (%)

	Survey (%)	Involved in retentions (%)
Micro	71	47
Small	17	22
Medium	9	22
Large	3	9

Figure 3: Compared: Size of Respondent against involvement in Retentions (%)



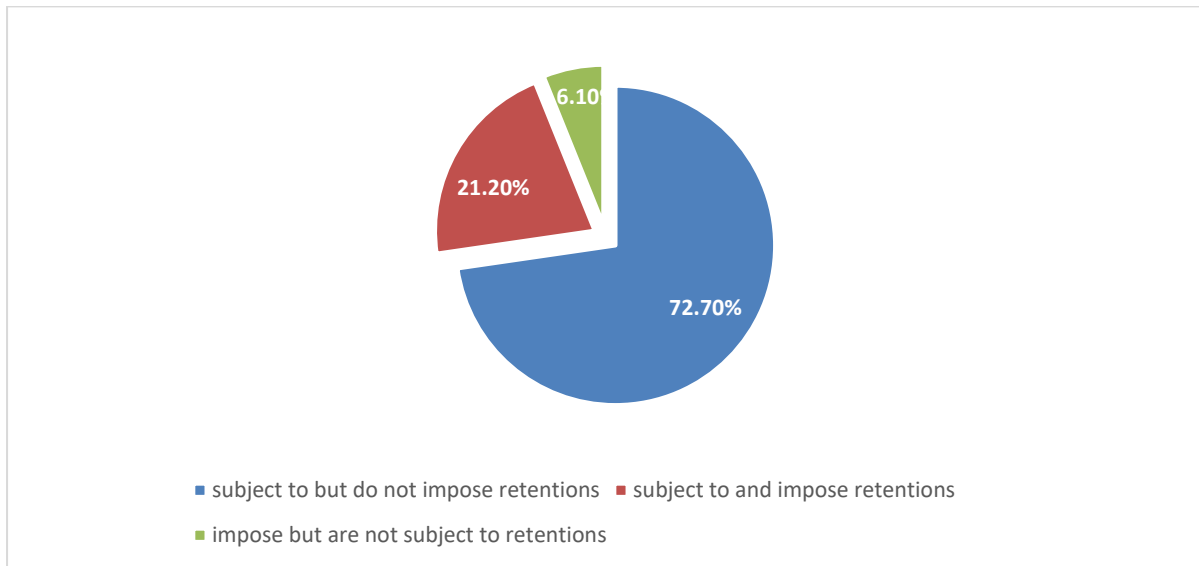
Base: 385, 132 Involved in retentions, Pye Tait Survey 2019

The practice of subjecting a sub-contractor to a retention (or, indeed, taking work which is subject to a retention) is not required by any Act of Parliament or mandatory policy. Companies are entirely free to use, accept or reject retentions according to their internal policies and business-model.

Within the respondents to the survey the approach to the subject broke down as follows:

- Contractors who are subject to retentions but do not impose them on others - 73%
- Contractors who are subject to retentions and impose them on others - 21%
- Companies which are not subject to retentions but do impose them on others - 6% (mainly but not exclusively what are known as clients)

Figure 4: Contractors surveyed by type of involvement with retentions

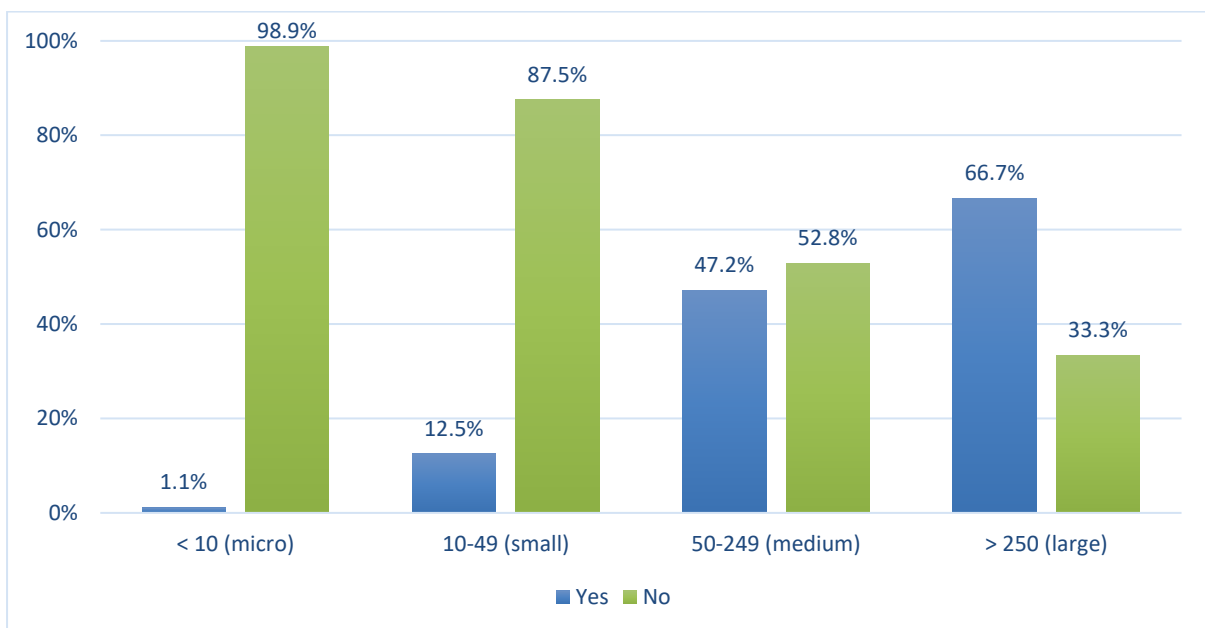


Base: 132 Pye Tait Survey 2019

The relationship between size of company and the imposition of retentions (i.e. groups 2 and 3 - 27%) is shown in Figure 5.

The percentages reflect contracting firms who impose retention on contracted firms, meaning for example that 12.5% of small firms impose retention on firms they employ, while 87.5% don't. The larger the organisation the more likely they are to impose retentions on their sub-contracting firms.

Figure 5: Frequency of imposing retentions (contractors)



Base: 385 Pye Tait Survey 2019

Contractors not involved with retentions

Contractors¹³ provided evidence that the practice of retentions is commonplace, predominantly in larger projects, but is not universal across the whole of the construction sector in Scotland. Two thirds (66.0%) of the contractors who answered the survey are not involved with retentions i.e. neither being subject to them on their own work nor imposing them on subcontractors.

The 264 contractors¹⁴ who are not subject to retentions supplied a variety of reasons. Almost a third (81, 31%) said they work directly for clients who do not impose retentions, with many stating that these are domestic clients. Others gave a number of other reasons such as that their company was small and that the contracts they work on do not require retentions.

Just over a quarter (69, 26%) actively avoid contracts which include retentions, giving reasons including:

- Retentions are too risky;
- The company 'had its fingers burnt' by the Carillion collapse or other liquidations or bankruptcies;
- They perceive them to be too much trouble in terms of bureaucracy and administrative costs; and/or,
- They believe the system is abused by higher-Tier contractors or clients by late repayment or not repaying the monies at all.

The figure of 26% of contractors who actively avoid retentions might be compared with the 2016 BEIS study in which 20% of all respondents actively avoid using retentions. The margins of error on both studies were approximately the same so the comparison reveals a small but possibly important difference between the two nations. Some contractors specifically said they had previously taken on work that involved retentions but now avoid it.

'We've moved away from work that involves retentions. It was a nightmare trying to get the money and clients know there isn't much you can do - you're unlikely to take them to court. Often, we just said we'd settle for half of it. When times were good we could just stick 10% on the quote, but then it got to: if we tried that we wouldn't get the work.'

Joinery contractor. Micro business

Of the 96 respondents who are subject to retentions but do not impose them on downstream subcontractors, around a quarter (22, 23%) say they are too small or that they do not employ subcontractors, the majority - three-quarters of the 96 respondents give reasons for positively opting against imposing retentions including; trusting their subcontractors, and simply choosing not to.

'Most people that work for us are personal friends and are trusted'

Electrical contractor. Micro business

¹³ This included main and subcontractors

¹⁴ Eight contractors impose retentions but are not subject to them

'We choose not to - we're confident in our subcontractors'

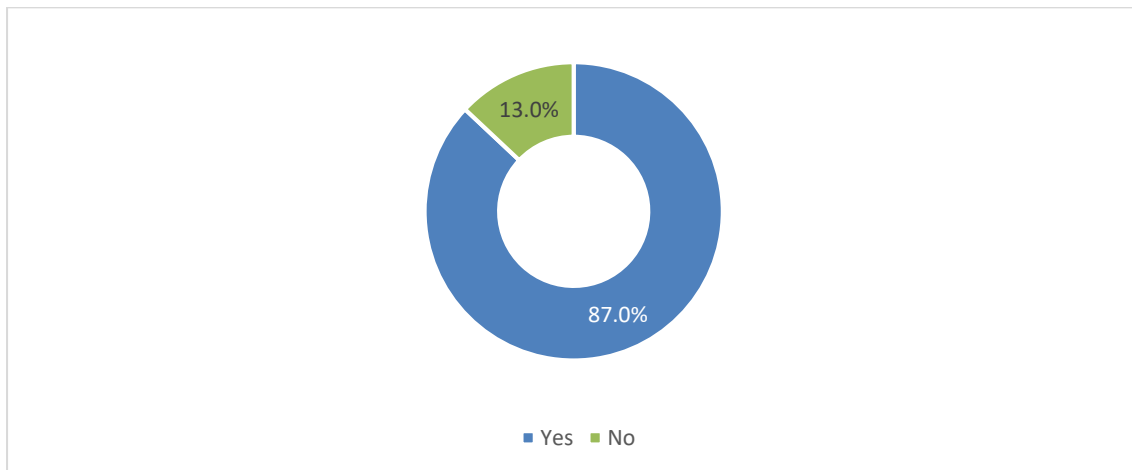
General building contractor. Medium business

4.2 Clients

Client respondents

The majority of one hundred respondents to the client survey (87%) have had experience of holding retentions on some or all of their construction projects. These have been held on organisations under contract to them over the last three years.

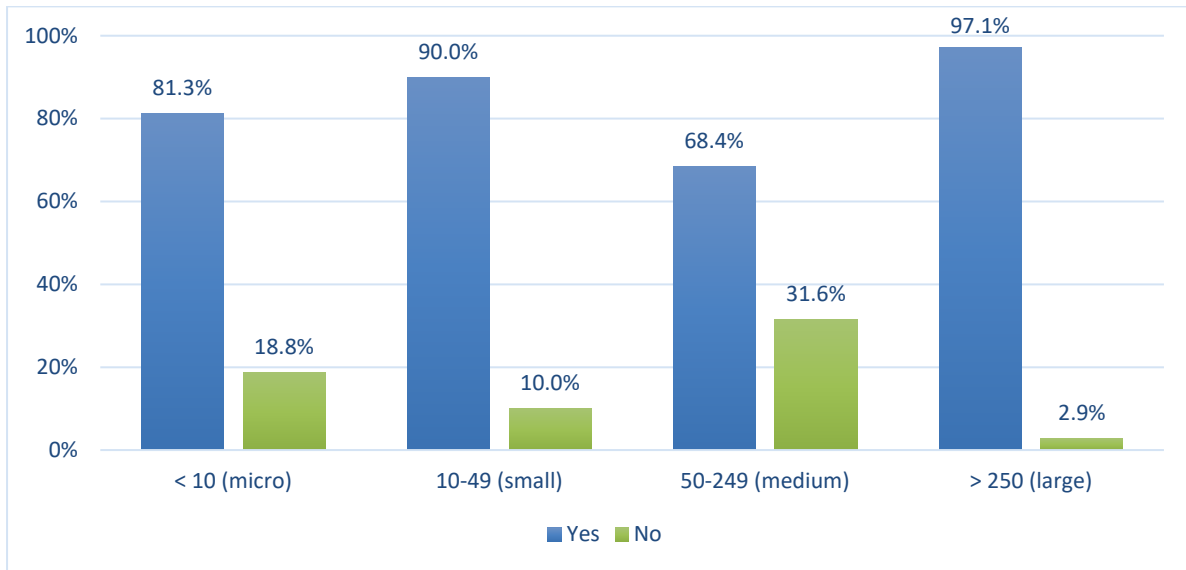
Figure 6: Frequency of use of retentions (client views)



Base: 100 Pye Tait Survey 2019

This compares very closely to the 85% who said they use retentions in the BEIS research in England (2016). Our research in Scotland focused on clients who are more likely to be involved in the use of retentions. Therefore, the percentages quoted above are a guide and not statistically indicative of the proportion of construction industry clients that are imposing retentions. Figure 7 shows some variation in the usage of retentions by size of client organisation: almost all (97%) of large organisations, over 80% of micro organisations, 90% of small and only 68% of medium organisations.

Figure 7: Client use of retentions - by size



Base: 100 Pye Tait Survey 2019

5. Scope and Scale of Retentions

5.1 Size and scope of the construction sector

In 2016, the construction sector in Scotland contributed over £7.1bn in Gross Value Added (GVA) to the UK economy - around 8% of the UK construction sector's overall contribution.

In the same year the sector in Scotland employed approximately 134,300 people within 20,000 businesses^{15 16}.

5.2 Contracts with retentions

Contractors involved in retentions say retentions were held on 52% of contracts¹⁷ in the past year. The equivalent BEIS research figures revealed 65% of current contracts holding retentions.

Clients with experience of holding retentions in the last three years, say that, on average, retentions are used on 81%¹⁸ of all their current¹⁹ contracts, compared to 78% in the BEIS research.

Taken by themselves these results confirm the importance of retentions to clients, and show that, even for contractors who are involved in retentions at present, the practice impacts upon around half of their contracts by volume (for commercial reasons it was not possible in this research to acquire data on the relative importance of retention-contracts by value).

Scottish construction output value Sept 2018 was around £14bn - down by 10% and 5,000 employees over the same figures for the year to September 2017. Our survey shows that roughly 34% of respondents are involved in retentions in some way (i.e. either requiring them or being subject to them). Of those, the survey reveals that they impose retentions on around 52% of their contracts.

If we can assume that the proportion of organisations involved in retentions can be used as a proxy for the maximum value of contracts upon which retentions could be imposed - this would give us a figure of £4.8bn. If retentions are imposed on 52% of their contracts, the total value of business subject to retentions could be estimated at £2.5bn.

¹⁵ Profile of the Scottish Construction Sector (SIC 41 to 43) last updated June 2018, <https://www2.gov.scot/Topics/Statistics/Browse/Business/SABS/ConstProfile>

¹⁶ <https://www.statista.com/statistics/564802/construction-firms-size-region-scotland/>

¹⁷ Contractors were asked to provide the overall number of all construction contracts, and then the number of these that had a retention held against them. These numbers were used to calculate the overall average of contracts with a retention

¹⁸ Some 17 instances of client data were removed as likely anomalies and misinterpretation of the question, the other alternative data suggested 60%, however this included figures that likely referred to the typical percentage of the contract held in retentions.

¹⁹ Clients were asked about current i.e. on-going constructions contracts over the past twelve months, as well as retentions still held on completed contracts. This refers to current contracts only, where retentions are being held in relation to these contracts

Retentions usually average around 5% of the value of the contract but many retention contracts have amounts passed down to Tier 2 and 3 contractors and each additional contract will shave off another percentage (usually 5%) from subsequent contracts. This implies a net total retention value, held by different tiers, of more than the original 5%. However, because not all contractors pass on retentions and, even if they do, they may opt for a different percentage, we have no way of knowing what the final retained percentage is on any one contract.

Therefore, using the basic figure of 5%, the overall value of retentions in Scotland can be estimated at a minimum of around £124m at any one time (5% of £2.5bn).

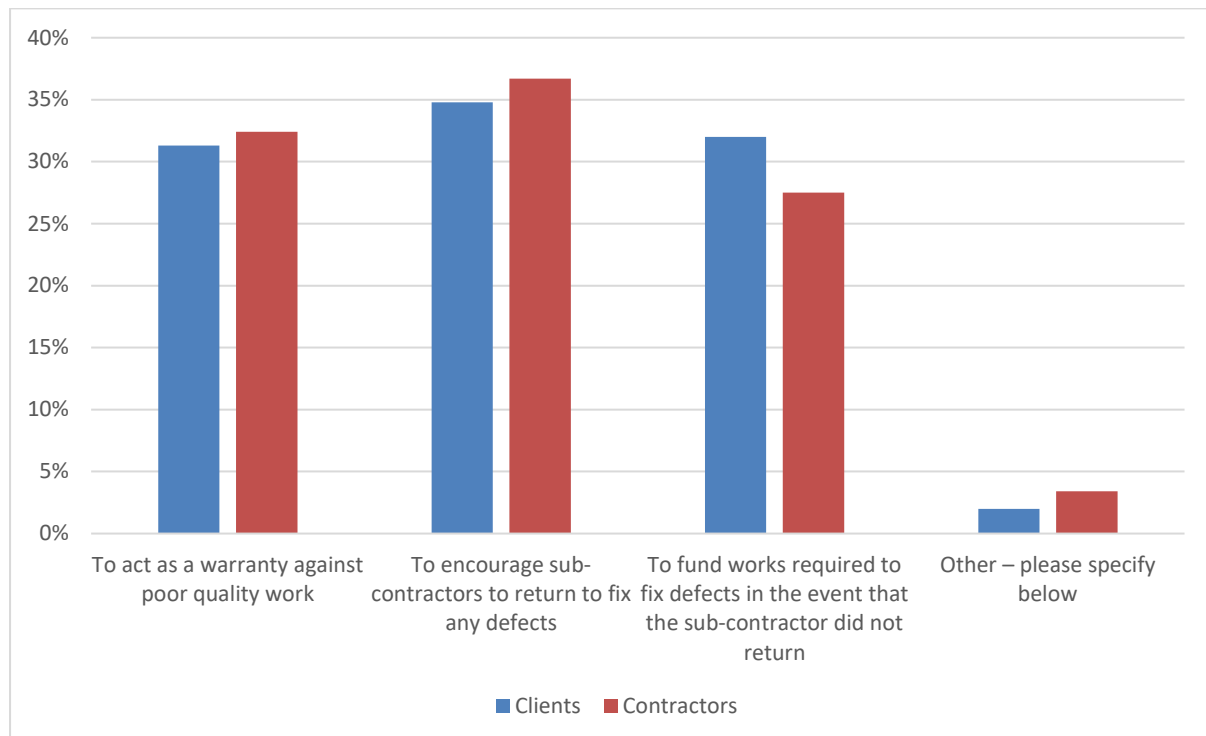
5.3 Purpose of retentions

The main purpose of a retention, in theory, is that it acts as a mechanism, similar to an insurance policy, to manage and mitigate supply chain risk. Ultimately, mitigation of these risks is intended to ensure projects are completed to quality and time expectations. We looked to investigate what clients and contractors perceive as the main justifications for the practice by asking those with experience of retentions in the last three years which of the following is/are the intended purpose of retentions in construction contracts:

- To act as a warranty against poor quality work
- To encourage contractors to return to fix any defects
- To fund works required to fix defects in the event that the contractor did not return

Clients and contractors have very similar perceptions as to the main purposes of retentions. By a small margin, both participants feel that encouraging contractors to return to fix defects is the most important reason.

Figure 8: Contractor and client views about the intended purpose of retentions all respondents.



Base: 207 contractor and 256 client responses; Pye Tait Survey 2019 (multiple answers could be selected)

Only six contractors suggested other purposes for retentions and these were centred on their belief that their main purpose was to improve client and higher Tier contractor cash flow.

There is qualitative evidence from roundtable discussions and from comments by survey respondents that some contractors may offer to be subject to retentions as ‘added value’ when tendering for contracts and that Tier 1 contractors will ask to be subject to retentions as this makes it easier for them to impose retentions on subcontractors.

It also appears that some contractors may add this cost to the tender price, thus undermining the purpose of retention in the first place and inflating construction costs in general²⁰.

The five clients who suggested retentions had other purposes highlighted quality assurance and ensuring projects are completed on time and to the required quality.

5.4 Minimum, typical and maximum amounts retained

Contractors with experience of retentions held over the past three years were asked to provide details of the retention percentage ‘typically’ held on current contracts, and the minimum and

²⁰ House of Commons (2002, Accessed 09.11.15), Trade & Industry Second Report

maximum percentages held against their current contracts²¹. These responses were then used to calculate overall retention percentages and were compared with results from the 2016 BEIS research (as shown in Figures 9 and 10).

In both cases the percentages and the spread between minimum and maximum is similar and supports the generally accepted view that retentions average about 5% of contract value.

Qualitative evidence indicates that the use of 3% is common for projects worth over £5 million.

The overall comparisons are shown in Table 4.

Figure 9: Scottish Contractor Views on minimum, typical and maximum retentions

(% of contract value retained from contractors)²²

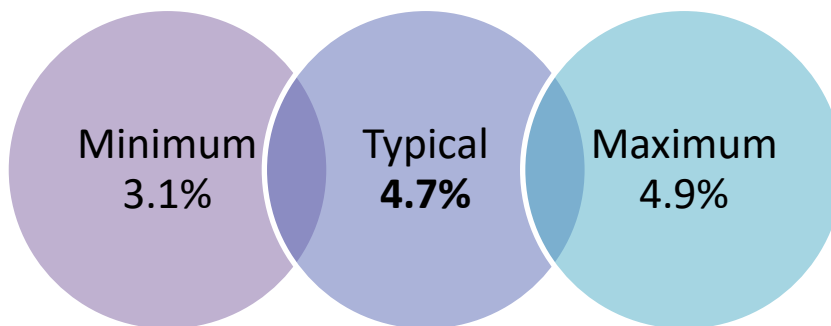
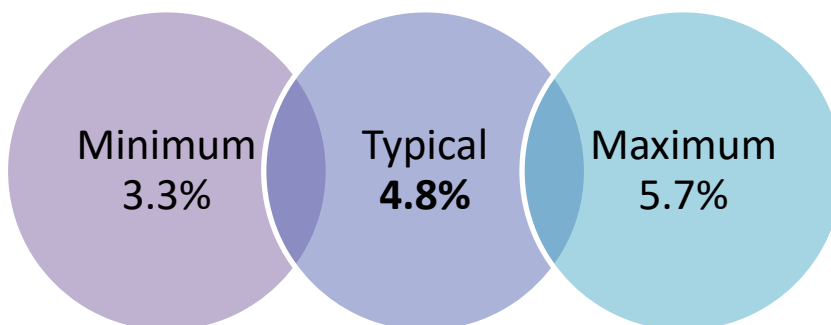


Figure 10: English Contractor Views on minimum, typical and maximum retentions

(% of contract value retained from contractors - BEIS research)



²¹ i.e. effectively the retention percentage that is most commonly held against them in the last three years

²² Maximum changes to 5.8% average if one case of a 100 maximum is counted

Table 4: Scottish Government/BEIS research comparison - Retentions as % of contract value (contractor views)

Contractor view	Scottish Government research	BEIS research
Typical retention %	4.7% mean average 5% modal average (84.7% of respondents)	4.8% mean average 5% modal average (78% of respondents)
Minimum retention %	3.1%	3.3%
Maximum retention %	4.9% ²³	5.7%

Base: 117 contractors Pye Tait Survey 2019 and BEIS report 2016.

The maximum retention percentage is influenced by a few isolated examples. One respondent suggested that an entire project amount was held in retentions on one occasion and others gave figures of between around 7.5% and 15%. Qualitative evidence also revealed that energy sector clients are more frequently imposing a 10% retention on contractors for projects that aim to increase energy efficiency.

The minimum retention percentage is reflective of a more diverse set of percentages at 5% or below. The most common minimum amount for a retention is 3% - given by over a quarter (26.6%) of respondents, with a further 26% who said the minimum was 2% (25.7%).

In short, this research confirms that 5% is the typical percentage of a contract amount held in retentions.

Amount that is typically retained - client views

Client respondents with experience of holding retentions over the past three years were also asked to provide details of the retention percentage that they ‘typically’ hold on current contracts, and the minimum and maximum percentages they hold on their current contracts²⁴. See Figures 11 and 12.

Overall the figures given by clients match the views of contractors - a minimum of around 3%, an average of about 5%, and a maximum a little higher. While 68.5% of client respondents say they hold a maximum of 5% of contract value in retention, there is evidence showing that higher proportions are held. A small number - of around 4% of client respondents - hold a maximum of 10% of contract value in retention, while 15.1% of client respondents say they hold a maximum of 3% of the contract value in retention.

Overall both on the client and contractor side there is reasonable consistency. The use of 3% retention is seemingly more frequent in Scotland. But, in both Scotland and England, 5% is the typical amount held from the contract’s total value in retention.

²³ As stated above -this increases to 5.8% if one case of a maximum of 100% is included

²⁴ i.e. effectively the retention percentage that they most commonly hold or have held in the last three years

Figure 11: Scottish Client Views on minimum, typical and maximum retentions²⁵

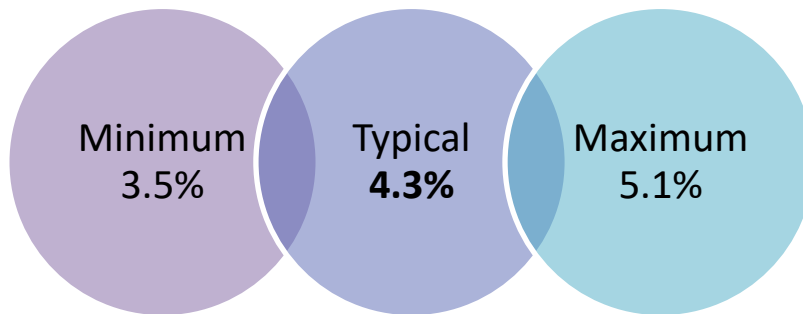


Figure 12: English Client Views on minimum, typical and maximum retentions

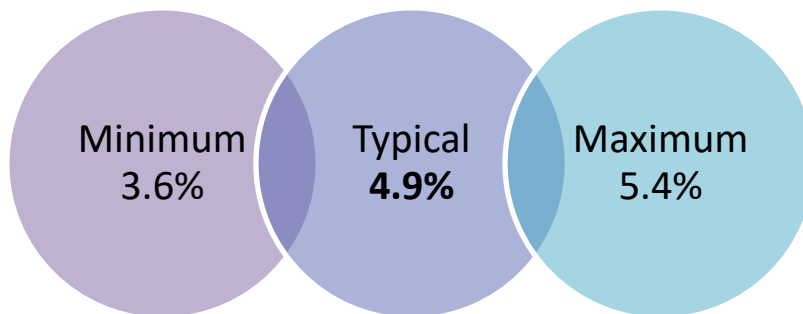


Table 5: Scottish Government to BEIS research comparison - Retentions as a % of the contract value (client views)

Client Views	Scottish Government research	BEIS research
Typical retention %	4.3% mean average ²⁶ 5% modal average (58.8% of respondents)	4.9% mean average 5% modal average (71% of respondents)
Minimum retention %	3.5%	3.6%
Maximum retention %	5.1%	5.4%

Base: 80 clients Pye Tait Survey 2019 and BEIS report 2016.

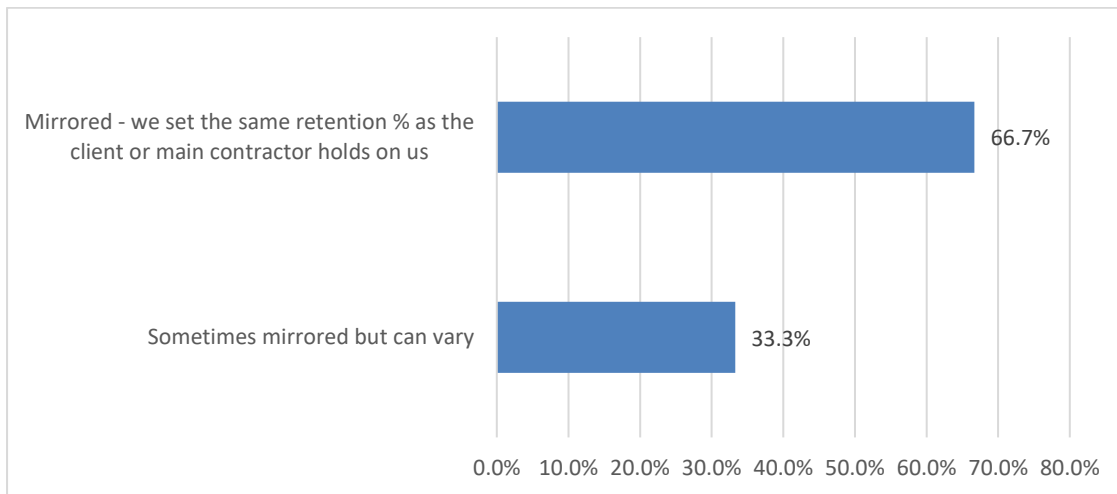
²⁵ Typical changes to 7.7% average if three cases of a 100 is counted

²⁶ This increases to 7.7% if three case of a maximum of 100% are included.

5.5 Retentions held by higher Tier contractors

When determining retention percentages to hold on subcontractors, two thirds of contractors who impose retentions mirror the retention percentage imposed on them. The other third sometimes mirror the imposed percentage but say that this can vary.

Figure 13: Influence of client/main contractor on retention percentages



Base: 30 Pye Tait Survey 2019

This is fairly consistent with the BEIS research which calculated that over three fifths (61%) always mirror the percentage held by the client/higher Tier contractor and over a quarter (28%) sometimes mirror but can use varying percentages.

Table 6: Influence on the retention rates (Scotland/BEIS).

	Scottish Government research	BEIS research
Mirrored	67%	61%
Sometimes Mirrored	33%	28%
Always different, typically lower retention % than held by the client	0%	9%
Always different, typically higher retention % than held by the client	0%	2%

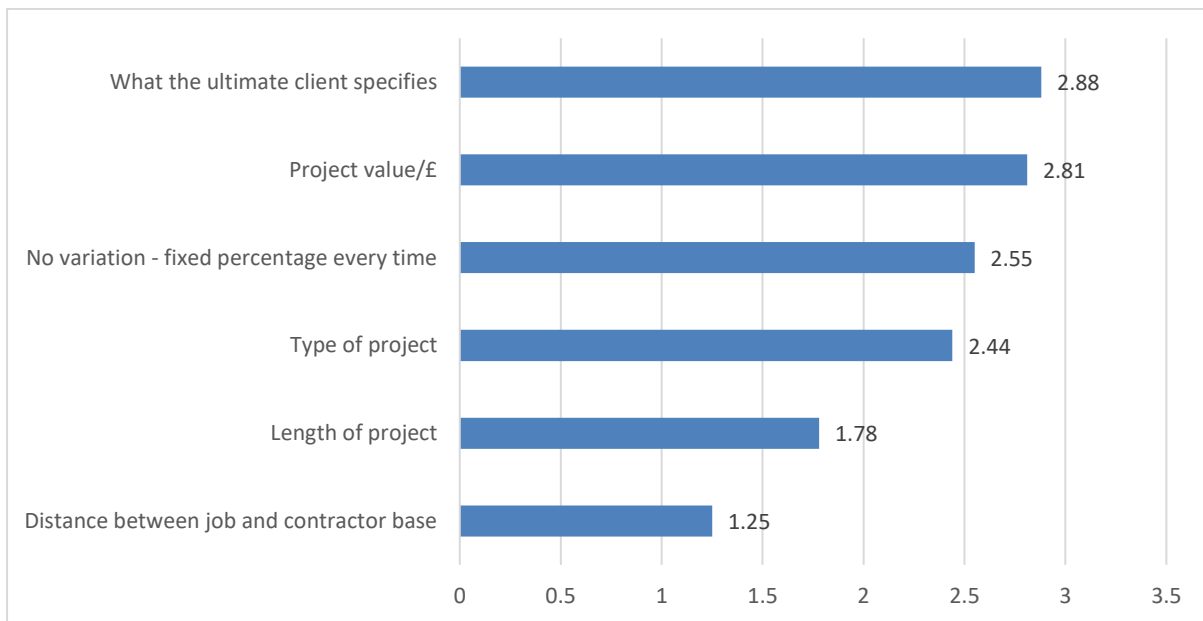
Base: 30 contractors Pye Tait Survey 2019 and BEIS report 2016.

The influence of the ultimate client’s retention level is also shown in Figure 14 which shows the average ratings (from a possible 1 to 5) of the extent to which factors influence the level of retention that contractors impose.

The approach of ‘What the ultimate client specifies’ with a rating of 2.88 is the most significant, followed by project value (rating 2.81).

Figure 14: Factors influencing the retention %.

(Scale of 1 to 5, where 1 is no influence, 5 is highly influential) Contractor views



Base: 27 Pye Tait Survey 2019²⁷

Project type (2.44) is considered more influential than length of project (1.78) and distance to the job from the contractor’s base (1.25).

This is largely consistent with the BEIS research.

Of the seven contractors who mentioned other factors that influence retention levels, six stressed the importance of relationships, two highlighted the type of work as an influence, e.g. always holding retentions on groundworks, but never on scaffolding. One mentioned the number of contracts which the subcontractor has with the client/main contractor at any one time. This last factor was also referred to in roundtable discussions in that clients and contractors will sometimes decide that they are holding enough funds overall across several projects to ensure a subcontractor’s commitment. There is evidence from discussions with clients and contractors that retention rates are negotiable. One client told us that retentions are set at ‘the level we can get away with’.

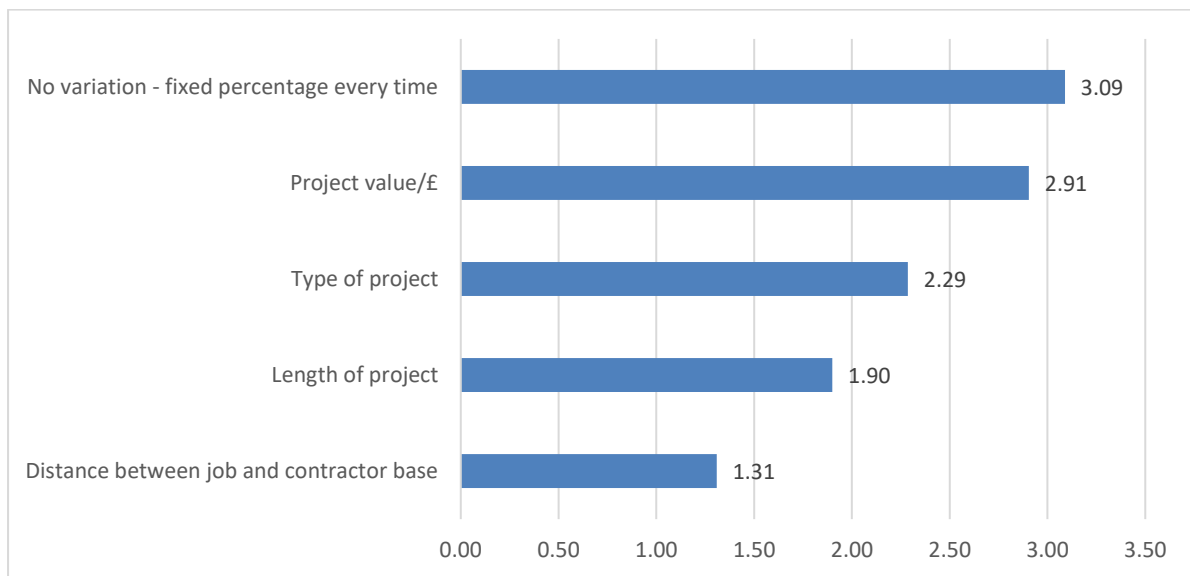
²⁷ Contractors were asked to select a rating for each

5.6 Client Retentions on Main Contractors

All clients participating in the client survey with experience of holding retentions in the last three years were asked whether project type, length, or value influenced the retention percentage held, or whether they applied a fixed retention percentage regardless of these factors. Each was rated by the level of influence it was deemed to have (Figure 15)

Figure 15: Factors influencing the client/main contractor retention % - Client views

(Scale of 1 to 5, where 1 is no influence, 5 is highly influential)

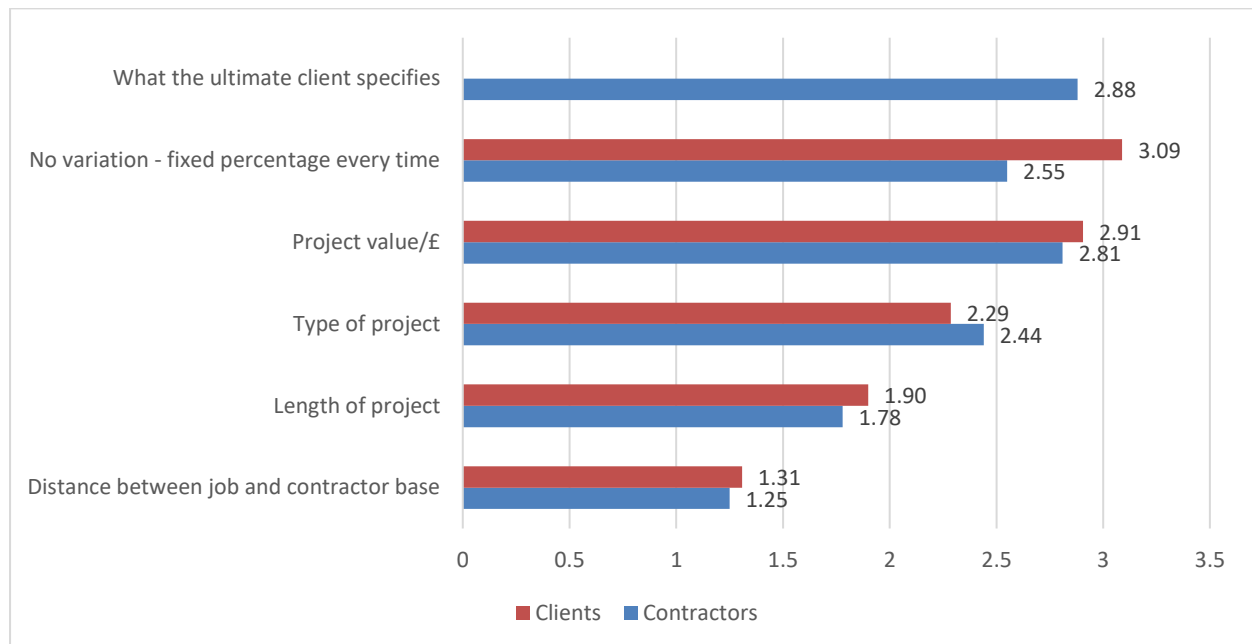


Base: 79 Pye Tait Survey 2019²⁸

Clients determine the retention amount in different ways but those with the highest ratings were a standard (fixed) percentage regardless of project, value, etc., and the project value. Figure 16 illustrates the comparison between the various factors as perceived by clients and contractors.

²⁸ Clients were asked to select a rating for each

Figure 16: Factors influencing the client/main contractor retention % - Client vs Contractor views



Base: 79 Clients, 27 Contractors Pye Tait Survey 2019²⁹

This comparison suggests that clients tend to maintain a fixed percentage of the contract held in retentions. Contractors who impose retentions on lower Tier contractors tend to mirror the client retention. Project value is a significant influencer.

Clients mention other factors that influence retention amounts including advice from consultants, quantity surveyors and insurers. The type of project is a factor for some clients with differential retention rates for ‘maintenance’ and ‘development’ projects. Some clients mention perceived risk as a factor influencing retention rates.

Qualitative evidence indicates that the retention percentages can be influenced by, and in some cases be removed based on, negotiation and other projects for the same client already holding retentions. Most trusted contractors might have no retentions held on a project, either based on trust or because the client already holds significant retentions on other projects which are deemed sufficient to act as a deterrent against not returning to fix defects.

“The 3% retention rate is negotiable depending on the contractor. Some reliable contractors are paid 100% after the job is completed. Other contractors not used before have 3% retention rate imposed.”

Commercial client. Micro business.

²⁹ Contactors and Clients were asked to select a rating for each.

5.7 Retentions as risk mitigators

Over half of the contractors (58%) responding to this survey question believe that the intended purpose of retentions is to encourage contractors to return to correct defects.

Survey data show that retentions have been used for this purpose in 38% of contracts that use retentions imposed by a contractor, and 48% of contracts that use retentions imposed by a client.

Qualitative feedback from the roundtable event and from in-depth interviews suggests that contractors are motivated more by other factors than by retentions. In returning to remedy defects the participants said they are motivated more by limiting damage to their reputation, and by the prospect of losing repeat business, than by the funds held in retention.

Contractors highlight the high cost and difficulties involved in returning to site after a project is completed. They argue that these costs alone constitute a significant deterrent to leaving unfinished or sub-standard work.

There are some concerns among contractors that retentions are becoming redundant because of increasingly strict pre-qualification requirements imposed on them, and similar accreditation standards applied to materials.

Clients and contractors who have used retention monies to fund the repair of defects were asked to rate whether the amount of retention is sufficient to cover the risks associated with defects, using a 1-10 scale (where 1 is not at all sufficient, and 10 is completely adequate).

Both parties believe that risks are reasonably well covered. Contractors gave an average rating of 7.9 compared to a rating of 7.25 by clients.

5.8 Methods of holding retentions

Around 56% of clients responding to this question hold the full retention either in their main bank account, or use it as working capital, or to support investment. Forty percent of clients keep the retention funds ring-fenced in a separate account (this does not however necessarily mean that such funds are safe from an insolvency procedure).

Survey data show that, in the vast majority of cases retention monies are held in full in the same place. Only four client respondents reported that they split the money - for example 50% in a main bank account and 50% in a separate account.

Around 6% of client respondents say they hold the retention in another form. These varied, but the main examples include: held by the Scottish Government, held by the ultimate client, or held “in the project’s budget”.

There is a much clearer picture among contractors, with 97% of respondents holding the full retention amount for all projects that use retentions in their main bank account (89% in the BEIS research). No contractor holds any money in trust or in a separate bank account.

Almost all client and subcontractor retention money is, therefore, at risk in the case of insolvency. Almost three-quarters of client to main contractor retentions are at risk, with addition of some of those that use more than one method of holding retention money. Virtually all contractor-held retention money is at risk.

5.9 Limitations of Retentions

At the roundtable event, there was much discussion of the advantages and disadvantages of the system of holding retentions. About a third of the participants³⁰ wanted the use of retentions to cease throughout the sector. One member of the group suggested that, if the Scottish Government took the lead on this, the public sector would adopt this approach and the private sector would eventually follow suit.

There was consensus around the table that, if retentions were to remain, improved protection for micro, small and medium businesses would be vital to ensuring the practice was fit for purpose. This was further reflected by survey respondents who, unprompted, suggested that this was what should happen.

We avoid business with this type of contract as the margins can be lost in unpaid retentions.

Tier 1 Contractor. Micro business.

Retentions need scrapping completely - any contractor worth their salt would go back to fix defects anyway without the need for retentions being held.

Tier 1 and 2 Contractor. Micro business.

Clients and contractors interviewed and at the roundtable who wanted the system to continue agreed that there is a need for some form of mechanism to mitigate risk, so if not retentions, they questioned what the alternative would be. Roundtable discussions highlighted that it is necessary to offset risk. These participants pointed to what they see as the common understanding of cash retentions throughout the supply chain. They argued that this mitigated against introducing new alternatives to the practice.

Retentions is the best-known system, but it could benefit from a review and improved administration.

Tier 1 Contractor. Large business.

³⁰ 12 participants attended the event in total.

Retentions are just used by larger companies to keep money from smaller companies. This negatively affects accounting making all administration take longer. Companies should just pay what they owe and not use retentions of any kind at all.

Tier 1 Contractor. Micro business.

Some interviewees stressed that a limitation of retentions is that they are held against the contract value which includes both the cost of material and the cost of labour. Feedback suggested that materials are often accredited through certification schemes, hence the risk of defects due to materials is low. Therefore, they argued, applying retentions to material costs is unnecessary.

The discussions also highlighted that retention amounts are often withheld in their entirety, even if the cost of the corrective work to fix defects is lower than the retentions amount. Stakeholders suggested that payments should only be withheld for the value of the defects that needs addressing.

The defect liability period is typically 12 months after practical completion. Participants argued that the chance of defects being identified during this extended period is low. For example, a housing development may remain unoccupied for 12 months after practical completion giving inadequate time to identify defects.

A critical issue for subcontractors is the way in which the retention payments are released, and their timing. Amendments to the Construction Act in 2011 mean retention payment for a subcontractor can no longer be affected by, for example, the main contractor's contract with the client. That said, the contracts are often parallel with subcontractors' contracts and subject to lengthy defects liability periods to fit with the main contractor's own defects liability period from the client.

As such, the retention imposed on the contractors digging the foundations from week one may mean a three-year defects liability period to fit with 12-months at the end of a two-year project.

6. Impacts of retentions

6.1 Supply-chain

The practice of imposing retentions typically cascades down the construction supply chain from the client to main contractor then to all tiers of subcontractor. There are some impacts which apply to the complete supply chain and others that are specific to different levels of the chain³¹. There are also impacts related to a number of other areas such as national and local economies.

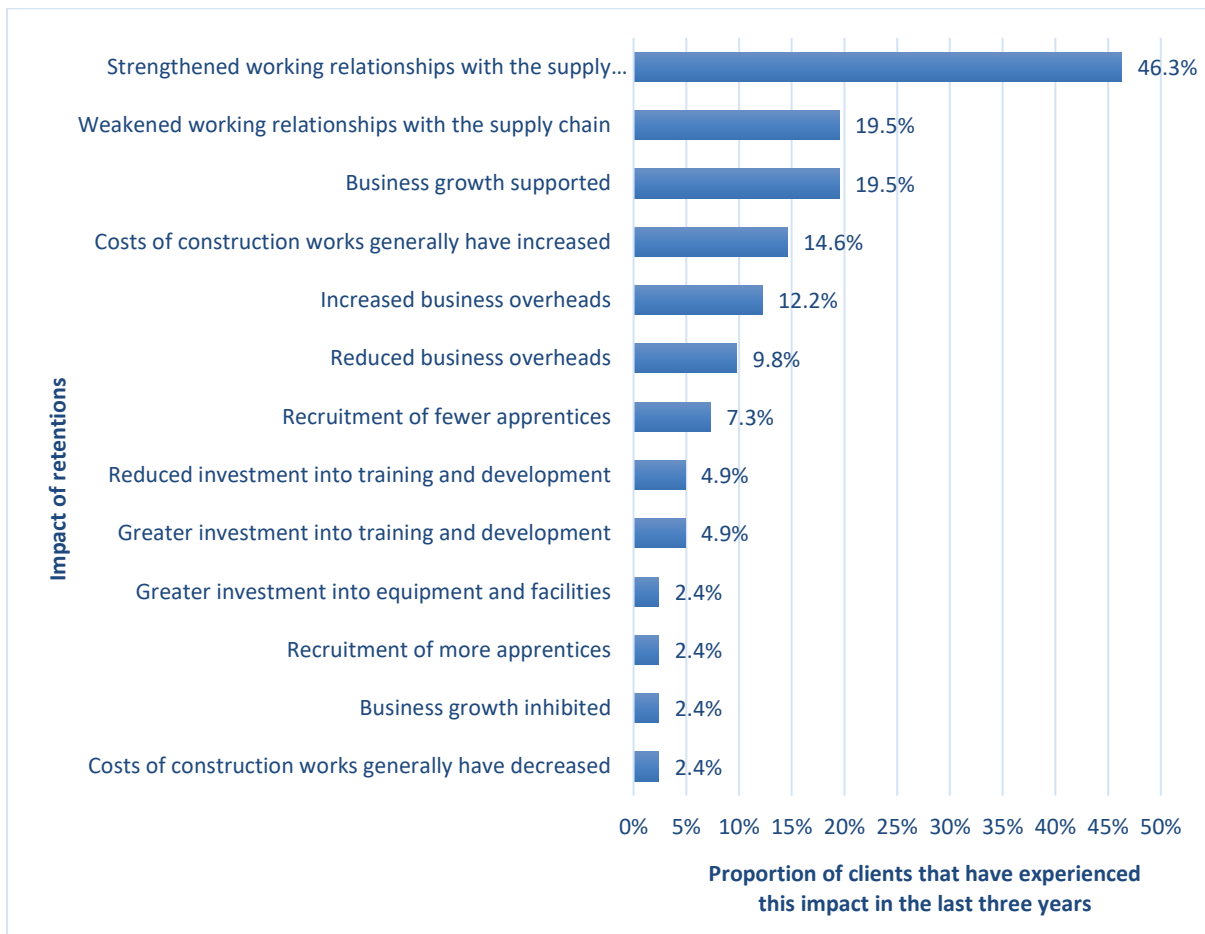
6.2 Impacts on clients

A net proportion of around 27% of construction sector clients claim that the practice of retention has strengthened working relationships with the supply chain while a net 17% of clients say that retentions have supported business growth.

Some 12% (net) believe that retentions have increased business costs.

³¹ The scope of this research focused on clients and tiers 1, 2 and 3 of the supply chain

Figure 17: Impacts of retentions on the client

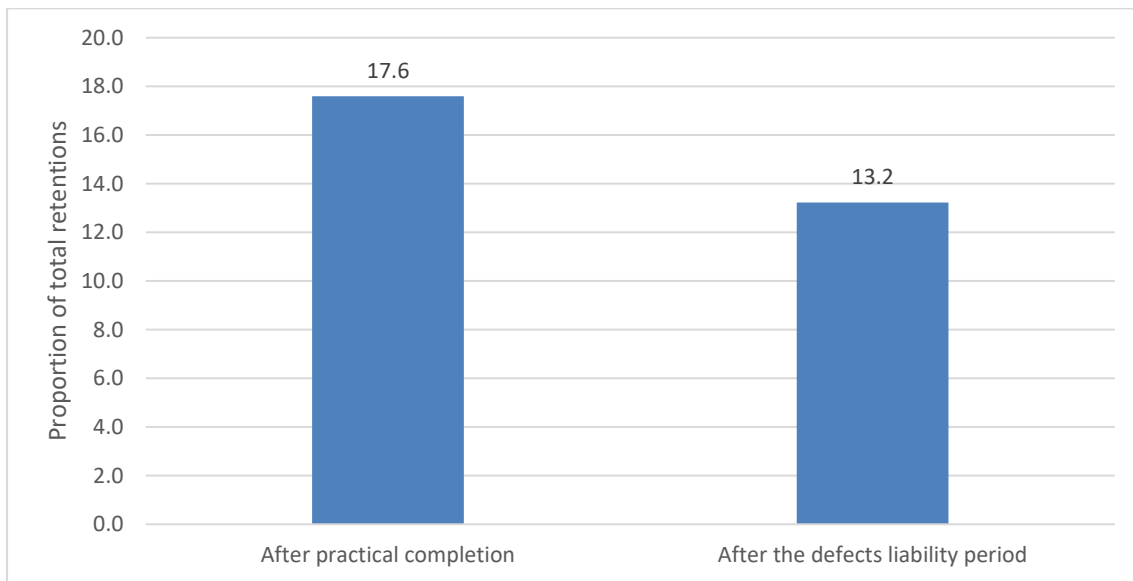


Base: 81 Clients Pye Tait Survey 2019 (multiple answers could be selected)

Non-payment of retentions by the client

Probably the greatest impact for those who are subject to retentions is not receiving the withheld money. Clients of the Scottish construction industry that have not repaid retentions say that they do not pay over a sixth (18%) of retention money after practical completion and 13% after the defects liability period. This is all money that may be lost to the construction sector - but this would depend on how much of the withheld money is used to pay other construction companies to fix defects.

Figure 18: Average % of retention payments not paid back (past year) (clients’ view)



Base: 71 Clients Pye Tait Survey 2019

Reasons for non-payment of retentions by the client

When provided the opportunity to determine how frequently the following reasons for non-payment at practical completion and at the end of the defects liability period occur, clients perceive the main reasons for non-payment of retentions to be:

1. The contractor not returning to fix defects; or
2. From a dispute arising over defects.

This was also the main reason presented by clients of the construction sector in England. This is supported by qualitative data from the roundtable event that some contractors will plan at the outset of the project to not return and fix defects, thus undermining the practice.

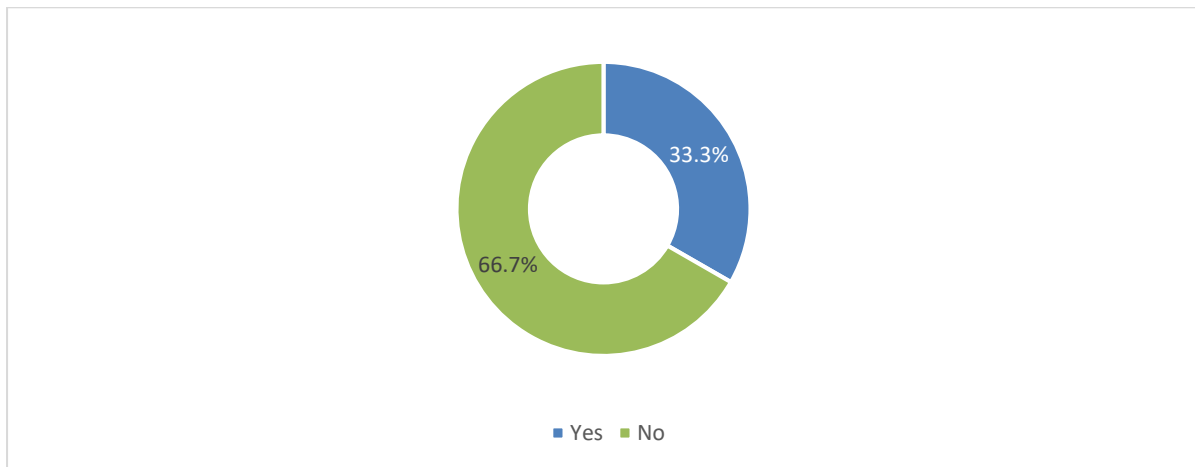
Around two thirds noted that this is never because of the contractors not asking for the money or not pursuing the client for payment. For the most part clients determine it is never because contractors are not asking for the money or chasing it up that they are not paid, although some note that this does take place. The reasons provided across the responses drew fewer than 10% under always and often, suggesting that payment of retention is the norm from a client perspective.

The only other reason that clients provided for retention payments not being paid at both practical completion and after the defect liability period is on the rare occasion where the contractor has gone into liquidation.

Administrative time in relation to retentions (client view)

On average construction sector clients in Scotland say that around 5% (51 respondents) of their annual turnover is spent on the administration of project delivery including dealing with retentions. Two thirds (67%) say that retentions administration does not increase this cost, (Figure 19) because retentions are part of the wider contracts and payment activities that they undertake across their business and because many keep the money in their own corporate account. In the third of clients that do suggest there is an increase in admin costs due to retentions, they ventured that administration costs are increased by 3.3% on average.

Figure 19: Do retentions increase administration costs?



Base: 78 Clients Pye Tait Survey 2019

Insolvency (client view)

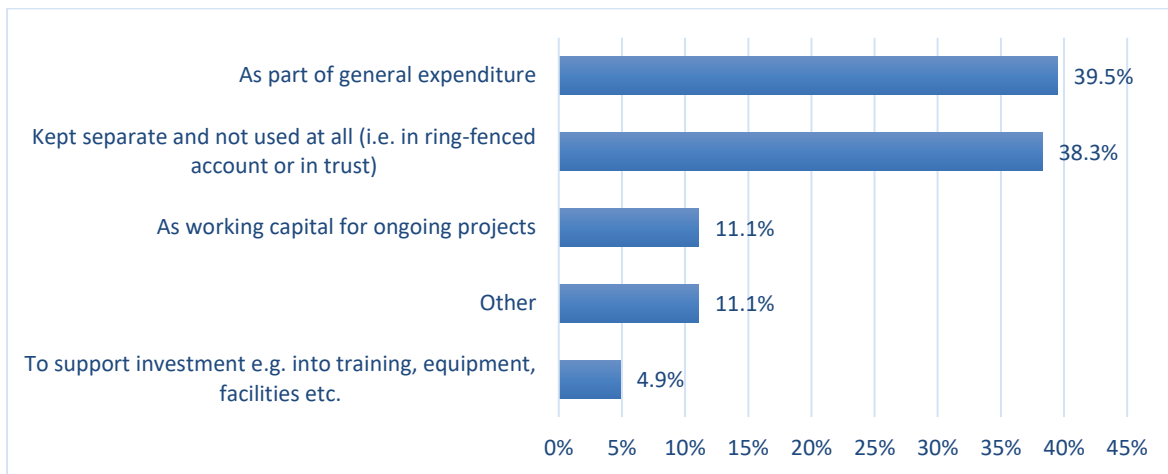
The use of retention is also designed to protect clients in the event of such events as insolvency in the contractor. The rate of insolvency in the construction sector is discussed in greater detail in the next section of this report. The average value of the retention money not paid back due to insolvency elsewhere in the supply chain, over the past three years, ranges from zero to £1,000,000. The average is £24,800³².

Clients’ use of retention money

Participants in the client survey with experience of holding retentions in the last three years were asked how their organisation makes use of retention monies. Two-fifths of client respondents use retentions as part of their general expenditure (Figure 20) with similar numbers (38%) making no use of retention monies they hold. As in the BEIS research, 11% say they use retentions as working capital to fund either the project against which the retention is held, or for other projects (Table 7).

³² To the nearest £100.

Figure 20: Clients’ use of retention money



Base: 81 Clients Pye Tait Survey 2019 (multiple answers could be selected)

Table 7: Clients’ use of retention money (BEIS comparison)

	Scotland 2019	BEIS ³³ 2016
As part of general expenditure	39.5%	18.8%
Kept separate and not used at all (i.e. in ring-fenced account or in trust)	38.3%	67.4%
As working capital for ongoing projects	11.1%	11.3%
Other	11.1%	7.2%
To support investment e.g. into training, equipment, facilities etc.	4.9%	1.3%

When comparing the two research studies, almost twice the proportion of clients are using retention money as part of their general expenditure in Scotland. For private contracts, those funds may be at greater risk. The risk is from insolvency and, while this may not affect public bodies, a significant proportion of construction spend lies in the private sector. The annual output of the construction sector in Scotland in 2018 was around £14bn. Of that we can estimate around £8bn in public capital contracts (c£4bn in local authority housing and environmental spend, £2bn for public construction in Scottish government capital spending, and an estimated £2bn of construction work in the Scottish defence and roads budgets)³⁴. This would imply that around 43% of construction spend in Scotland is by private companies- around £6bn.

³³ Base: 323 respondents

³⁴ Figures from the Scottish Government Expenditure and Revenue Accounts; 2017-18.

6.3 Impacts for contractors

Contractor respondents to the survey were asked to select from a list to indicate which, if any, impacts they had experienced

- as a contractor who imposes retentions on others and
- as a contractor who is subject to retentions in the past three years.

Respondents were able to select more than one option from Table 8. This provides an indication of the frequency with which respondents have experienced the various impacts, in the last three years.

Table 8: Impacts of retentions

Impacts of retentions (in priority order)
Greater investment into training and development
Reduced investment into training and development
Costs of construction works generally have increased
Costs of construction works generally have decreased
Business growth inhibited
Business growth supported
Increased overheads
Reduced overheads
Recruitment of more apprentices
Recruitment of fewer apprentices
Unable to recruit apprentices at all
Greater investment into equipment and facilities
Reduced investment into equipment and facilities
Strengthened working relationships with clients
Weakened working relationships with clients
Strengthened working relationships with the supply chain
Weakened working relationships with the supply chain

Contractors responding to this survey question who impose retentions on others in the supply chain identified a higher proportion of positive impacts than negative as a result of holding retentions from contractors further down the supply chain.

Those who impose retentions on others in the supply chain argue that holding retentions supports their business growth (63%) and enables greater investment in equipment and facilities (38%) (Figure 21).

“Financial cashflow is impacted by money held a month in arrears, retentions are just more money is tied up preventing you from investing in other areas.”

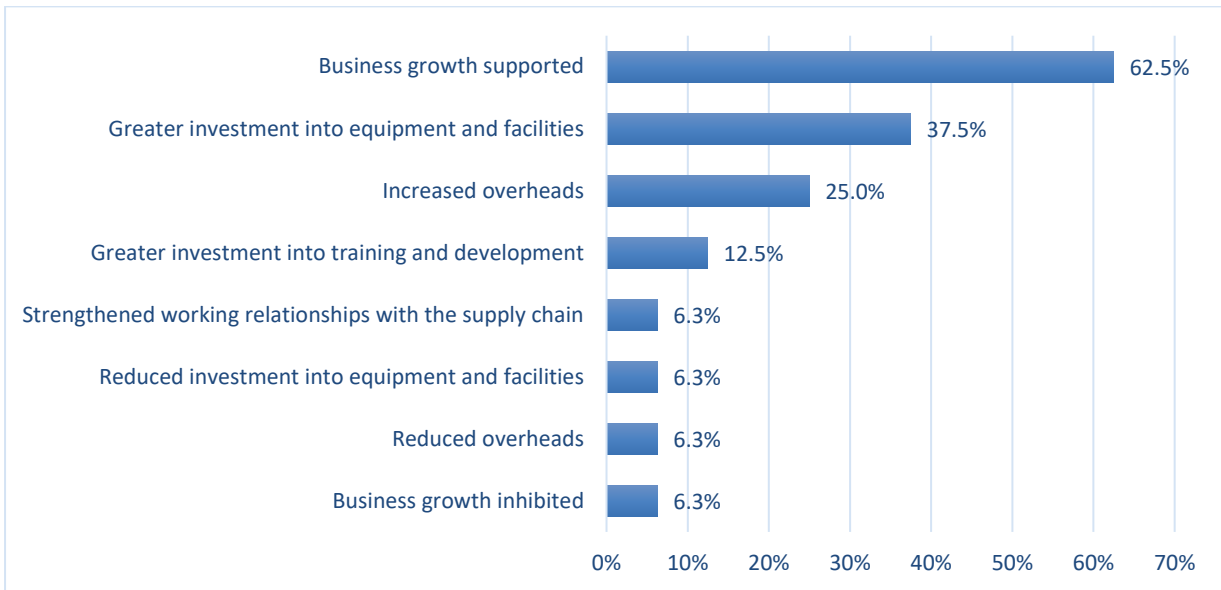
Industry stakeholder, roundtable event

“Retentions money is needed to grow the company, but retentions go directly against the ability to grow the business. Every pound held in retentions is a pound that cannot be used for machinery.”

Tier one contractor, roundtable event

In the BEIS research the main impact, according to Tier 1 contractors who impose retentions on others, is increased overheads (46%), this was also an impact in Scotland but only reported by a quarter of respondents. Almost a fifth (19%) of Tier 1 contractors in the BEIS research believe retentions strengthen working relationships. In Scotland only 6.3% suggested that this is the case.

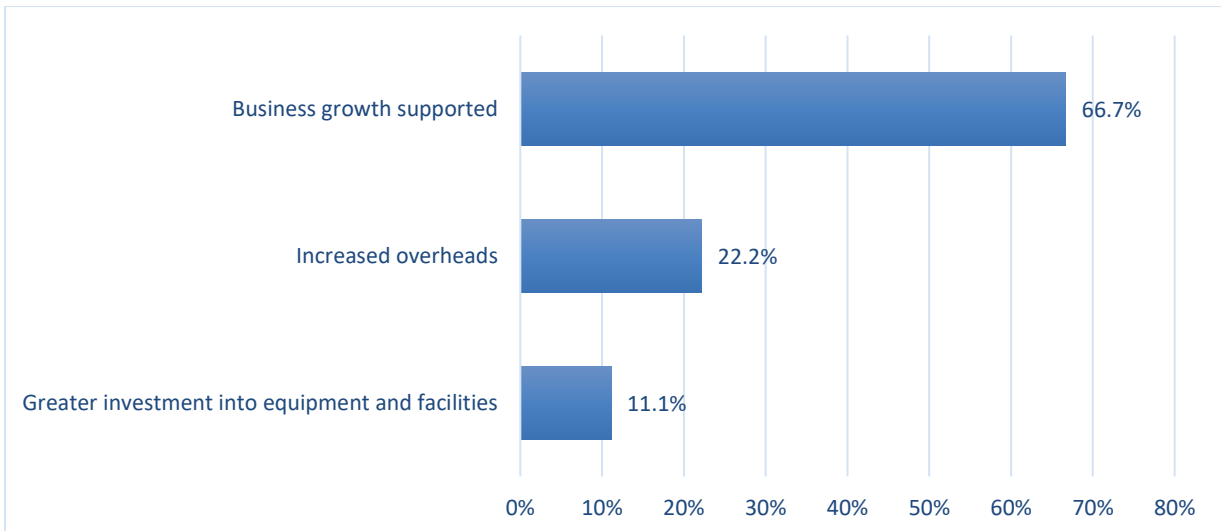
Figure 21: Impacts of retentions on those who impose retentions on others



Base: 16 Contractors Pye Tait Survey 2019 (multiple answers could be selected)

Those who impose retentions also said that the *most significant impact* was that it enabled business growth (67%). This is in keeping with the suggestion contractors will use retention money that they hold as working capital for their business.

Figure 22: Most significant impact on those imposing retentions on others

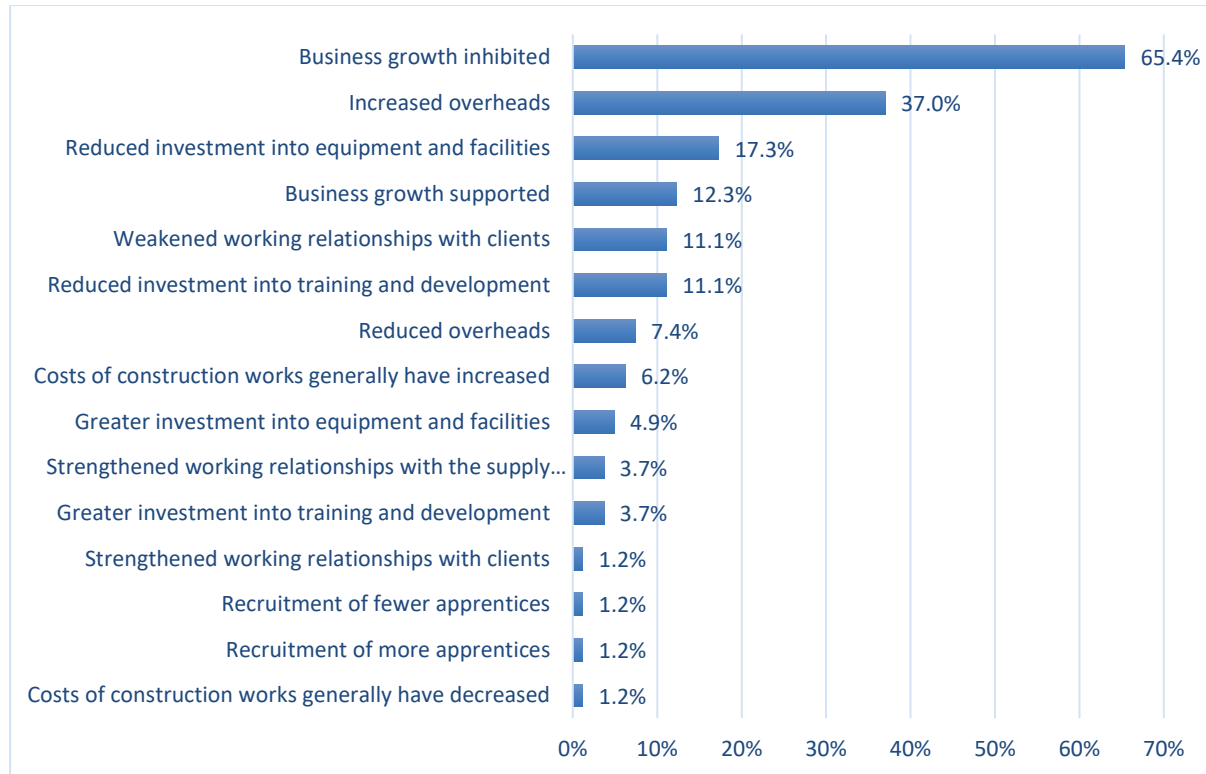


Base: 9 Contractors Pye Tait Survey 2019 (a single answer could only be selected)

Those contractors having retentions imposed on them by those higher in the supply chain identify a higher proportion of negative impacts than positive. In contrast to those who impose retentions on others in the supply chain companies, these contractors say that the withholding of retentions inhibits their business growth (65%), increases overheads (37%) and reduces investment in

equipment and facilities (17%) (Figure 23). These figures can be compared with the BEIS research in 2016, which returned figures of 26%, 46%, and 19% respectively.

Figure 23: Impacts of retentions on those who are subjected to retentions by others

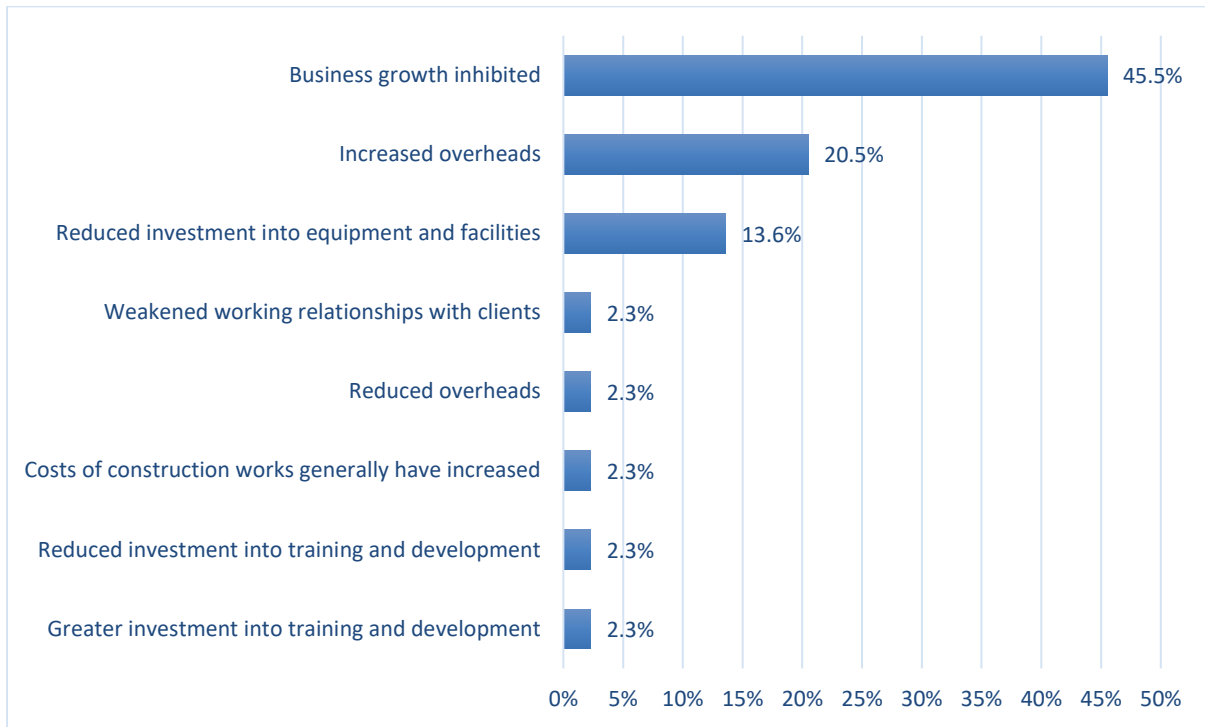


Base: 81 Contractors Pye Tait Survey 2019 (multiple answers could be selected)

Those who impose retentions argue that they support business growth while companies which suffer retentions without the ability to pass them on say that the practice inhibits growth. Qualitative feedback suggests that there is a capability for main contractors to abuse the retention system and protect their market share by withholding payment in cases where there is a contractor in a lower Tier that is looking to grow their own market share.

The contractual imposition of retention can, therefore, also be a useful business tool against potential competitors.

Figure 24: Most significant impact of retentions on those who are subjected to them



Base: 44 Contractors Pye Tait Survey 2019 (multiple answers could be selected)

The practice of retentions can work to undermine working relationships as well as to enhance them. A number of interviewees explained that the practice of retention has a significant impact on the construction sector’s culture and general perceptions in the industry. Many argued that retentions work in opposition to developing a collaborative sector and perhaps fuel a culture of distrust.

Our findings are that strong working relationships which already exist between companies can alter the need for imposing retentions or high levels of retentions, but where such relationships do not already exist the system can certainly work to the detriment of relationships and to a possible reduction in the numbers of companies bidding for any work on which retentions will be held. This is because a proportion of construction contractors avoid any such bids. To the extent that this proportion is made up of companies with high standards and skilled workers a net effect could be to reduce competition and possibly reduce the availability of competent and capable companies to the clients and Tier 1 contractors.

Non-payment of retentions by contractors

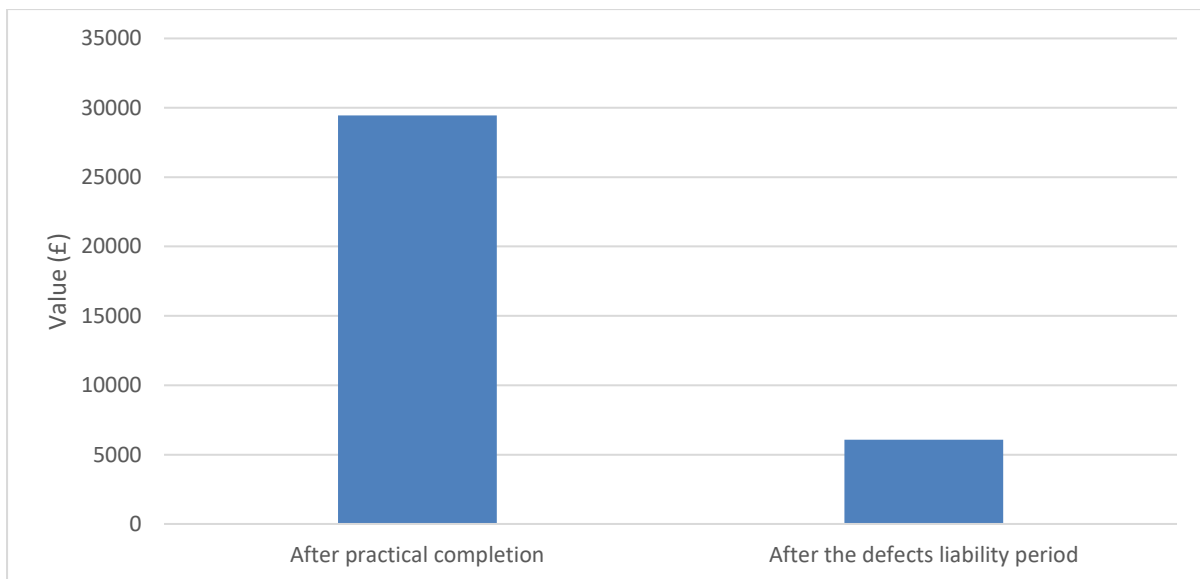
As seen in the previous section, the greatest impact for those who are subject to retentions is not receiving the money, as it inhibits business growth.

Figure 25: Average % retentions not paid back (past year/all contractors)



Base: 28 Contractors imposing retentions, 84 Contractors subject to retentions Pye Tait Survey 2019

Figure 26: Average value of retentions remaining unpaid (past 3 years).



Base: 18 Contractors imposing retentions Pye Tait Survey 2019

Reasons for non-payment of retentions by contractors who impose retentions on others

According to contractors who impose retentions throughout the supply chain, the reasons for, and the frequency of, non-repayment of retentions is consistent between the point of practical completion and end of the defects liability period.

The main reason for non-payment according to contractors who impose retentions on others are:

1. where subcontractors do not return to fix defects (61% of cases say this always the reason);
2. occasionally as a result of disputes arising with subcontractors in relation to defects; and
3. that contractors do not ask for retention money or did but failed to subsequently pursue the money.

Respondents said that 13% of their contractors never ask for the payment of a retention. This could support anecdotal evidence that some subcontractors factor the cost of retentions into the price, therefore undermining the practice, but ensuring that the sub-contractor gets the full internally-estimated cost of their work.

Furthermore, over two fifths (42%) suggest that contractors ask for retention money initially but then never pursue the payment and that 6.5% fail to pursue payment on practical completion.

Consistently, around a third of respondents that impose retentions on subcontractors (27%-39%) suggest that these reasons for non-payment of retentions never apply to their projects, from which we could infer that a third of retentions due on practical completion are always repaid in full.

Reasons for non-payment of retentions by contractors who are subject to retentions

In this aspect of the research around two thirds determine that retentions are paid in full, indicating that non-repayment is the exception rather than the norm.

The most concerning is the 26% of the contractors that note they never return to correct defects. It is again possible this is due to them costing retentions into their original quote, but certainly indicates that the retentions system is not working in these cases. This is supported by qualitative responses that suggest eventually contractors will write-off retention amounts.

Additional qualitative data suggests that the relationship with clients or higher Tier contractors that are imposing retentions is also a key factor and that retentions are not pursued in order to maintain the relationship and win more work.

Those who have retentions imposed on them also feel that in some cases that those higher in the supply chain actively seek not to repay retention money and will contravene the ban on contingent payments in the Construction Act, or at least get around it through long defect liability periods.

“We often have to wait for the main contractor to receive retention monies from the client before retention monies are paid to us.”

Painting Contractor. Small business

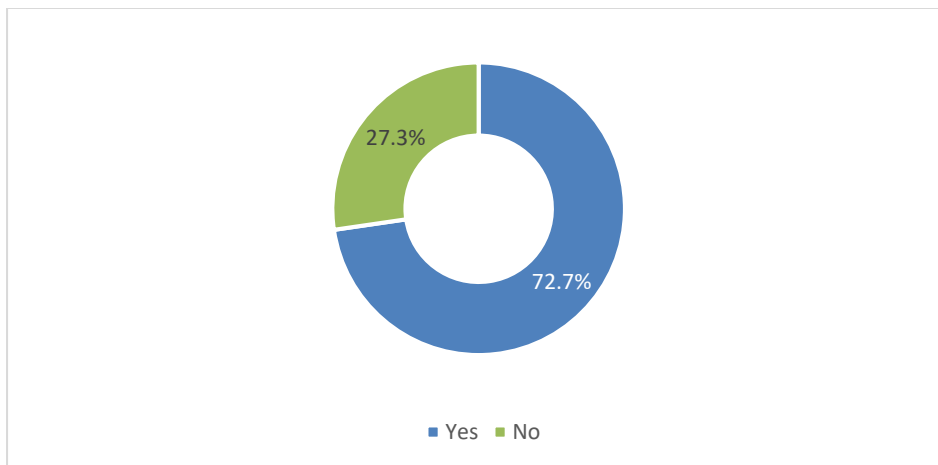
“The retention holders refuse to pay. They are constantly nit-picking about details. It is an obvious attempt to not pay retentions.”

Roughcaster. Micro business

Administrative time in relation to retentions (contractors view)

On average contractors in Scotland calculate that 2% (21 respondents) of their annual turnover is spent on administration costs. Almost three quarters (73%) say that retention administration increases this cost (Figure 27). On average contractors say that administrations costs are increased by 3.5% due to retentions.

Figure 27: Does administering contracts with retentions cost you more?



Base: 33 Contractors Pye Tait Survey 2019

There was a clear divide between main contractors and subcontractors. Main contractors tend to see retentions as part of the wider contracts and payment activities they undertake across projects. The main point from a subcontractor perspective is that they spend the time, funds and other resources chasing payment from higher Tier contractors, with delays commonplace and administrative costs building up.

A key difference between the two groups, highlighted at the roundtable event, is that more often main contractors will have departments that specialise in contracts and procurement and other departments to manage the projects. Subcontractors often have one person overseeing both aspects. This may have a bearing on the fact that subcontracted companies seem more inclined to write-off retention money as it can often become more expensive and burdensome to chase.

Tendering

Contractors that are subject to retentions suggest that it has minimal impact on the price they quote; with most suggesting it has no impact at all. On average it appears to increase the amount quoted by 0.5%, with a maximum increase of 2.5%. In the last twelve months the survey found no respondent subject to retentions who has needed to raise additional working capital because of retentions.

Insolvency (contractor view)

Upstream insolvency, such as that experienced by Carillion, is a key concern for those involved in retentions and for the sector more generally.

On average the proportion of contract value that is lost due to insolvency is 2.7%, compared to around 1% in England at the time of the BEIS research in 2016. Whilst it is possible that the issue is greater in Scotland, recent high-profile contractor liquidations in the UK could also contribute to this increased level of impact north of the border. In the past three years the average loss of survey respondents who are subject to retentions is almost £19,000. This is largely due to the use of main bank accounts to hold this money rather than it being ring-fenced or protected.

This reduces to an average of 0.8% when considering the impact of insolvency further down the supply chain, i.e. a Tier 3 contractor impacted by a Tier 1 insolvency. However, it still cost the contractors subject to retentions an average of over £12,000 (over £4,000 a year).

The greatest concern among interviewees was the impact that insolvencies has on subcontractors; one interviewee suggesting that it is “worse the further you go down the supply chain”. The view of sector stakeholders is that large companies will often have the resources to reclaim retention moneys following the liquidation of a large firm. However, smaller businesses will likely be ill-equipped to recover lost retention money. Some stakeholders viewed this as theft as “retentions are contractor money that has been subject to retentions, but it is treated like the money of the imposing organisation.”

“Insolvency is a painful experience for those in the supply chain.”

Tier 1 contractor, roundtable event

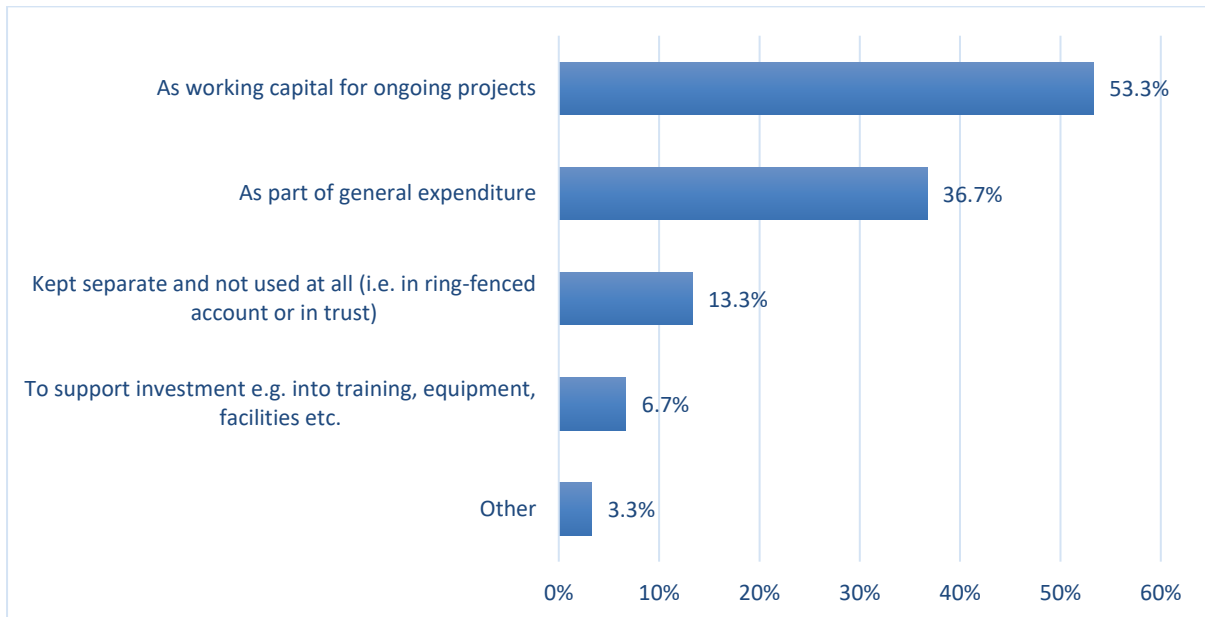
Qualitative feedback also demonstrated that retentions can have an impact on local economies, first in the area in which the main contractor is located, but also if a lower tiered contractor loses out or goes insolvent as a result of lost retentions.

How contractors use retention money held from subcontractors in Scotland

Participants in the contractor survey with experience of holding retentions in the last three years were asked to provide details of how they use retention monies held from subcontractors. Over half (53%) use retention monies as working capital, while over a third 29% use the money as part of their general expenditure. Only 13% say they make no use of retention monies (Figure 28)⁴³.

This is much lower than the proportion of clients that report they make no use of retention monies (38.3%) which may reflect financial realities for smaller organisations. As in England contractors are more likely to use retention monies to help with their cash flow.

Figure 28: Use of retention money (all contractors)



Base: 30 Contractors Pye Tait Survey 2019 (multiple answers could be selected)

Almost all stakeholders, including contractors at all tiers, participating in the roundtable discussion and in-depth telephone interviews consider the current retention system to be most beneficial for Tier 1 contractors in the construction sector. The main reason for this is that it acts as a positive cash flow on their balance sheets making Tier 1 contractors less reliant on loans for working capital, and therefore able to finance other projects with retention money held on lower Tier contractors.

If contractors were not subjected to retentions most suggested that they make more profit (61%), take on more work (53%) and invest in new (22%), or improving existing (14%), equipment and facilities (Figure 29).

This supports the general direction of respondent views in interviews that the practice of retentions benefits those who impose them and stifles the growth of those subject to them.

Figure 29: Use of retention money by contractors if retentions were not held against them



Base: 104 Contractors Pye Tait Survey 2019

6.4 Impacts of the Retention System on Construction and the Scottish Economy

Views on pros and cons of retentions are very much related to where, exactly, a company or organisation sits in the supply chain. While the general perception from the Scottish construction industry on the practice of retentions is negative, the overall feeling from discussions, interviews, and surveys conducted during this study is that clients are generally supportive but contractors - especially those further down the supply chain - reluctantly regard it as a necessary evil to be worked around.

The retention system can be perceived as carrying a number of advantages and disadvantages but generally by different actors in the supply chain. The advantages of retention are mostly experienced by those who impose them, and the disadvantages by those who are subject to them.

Many small and micro businesses say they do not come across them or have never been asked. This suggests that, for most domestic and minor commercial work, retentions are not used. The main reason for this is probably that many clients have never heard of the practice - for example, a homeowner who is getting an extension erected will probably expect to pay the balance of the full contract price on practical completion.

For other clients and contractors involved in larger scale work the advantages and disadvantages of the process could be summed up as follows:

Advantages

- Retentions mitigate risk down the supply chain. This is achieved by ensuring that there is a financial incentive for contractors to return to fix defects should they arise. In the event a contractor does not return, this money is then used to fund remedial construction work.
- They are widely accepted in the Scottish construction industry. Many contractors expect retention to be held on their work and some suggest that it improves working relationships.
- They are relatively easy to operate and have an established legal protocol
- Some clients and top-level contractors argue that retentions improve relationships with the supply chain. They argue that the holding of retentions suppresses the likelihood of disputes but where do arise they are less confrontational, making managing contractors at all levels less burdensome.
- The system is preferred over alternatives by most clients and top-level contractors. At present, alternatives to retentions are scarcely used and when they are it is often in conjunction with retentions.
- Clients and top-level contractors argue that the retention system supports business growth. Money imposed on the supply chain is often held in main bank accounts and used as working capital. In this sense retentions fund the projects of those further up the supply chain.
- Retentions can be seen as protecting market share for main contractors. For main contractors holding retentions, delaying payment or not paying lower Tier contractors all, acts as a means of protecting their own position in the market by reducing cash available to lower level (potential) competitors.

Disadvantages

The disadvantages of retentions are often mentioned by two main groups: those that are subject to them lower down the supply chain, and those who avoid them, often due to the issues they have experienced with retentions in previous work.

- The current system carries a real risk of contractors losing money due to insolvency in the supply chain. The main point of reference here is the liquidation of Carillion. Many companies have been impacted by this and other bankruptcies in Scotland. The highest risks are to the smallest companies.
- Retentions can be seen as having a negative impact on cashflow. The instability in the payment of retentions through non or late payment can often lead to second and third order effects that inhibit business growth and can send businesses on a trajectory toward insolvency.

- Contractors regard retentions as being inconsistently applied by different clients and different upper-Tier companies. The inconsistency leads to uncertainty and instability.
- They may hinder business growth for companies down the supply chain. In theory the retained cash could be used for a whole host of activities including taking on more work, improving the workforce either by hiring more people or investing in training, facilities and equipment.
- Retentions may be open to abuse. Retention money is usually retained by the higher echelons of the supply chain in main bank accounts forming part of their working capital. Lower Tier contractors argue that those above them in the supply chain have an incentive to withhold payment or not pay retentions at all.
- Although clients and main contractors say that retentions improve and enhance working relationships, this is not the view of those further down the supply chain. Many argue that retentions damage working relationships by creating an adversarial working relationship and encourage friction and disputes.
- There is some evidence that retentions can inflate quotes by being “costed into them”. In some senses this could be argued to make the whole practice redundant. If contractors increase their quotes to offset anticipated losses due to the workings of the retention system they have far less incentive to return to fix defects and, often, where there are no defects, they may get “paid twice” in the contract. The inflationary effect of this possible practice is not possible to calculate without further research.

The Impact on Scottish Government Policies

“Fair work” is defined by the Scottish Government as driving productivity, releasing untapped potential and inspiring innovation - all of which add value to jobs and to business and, in turn, create stronger, more sustainable and inclusive growth.

A key disadvantage and the most significant impact according to those subject to retentions is that the practice inhibits business growth. In this sense, the practice works in direct opposition to the intentions of the Scottish Government’s fair work policies.

In determining impact, the Fair Work Framework covers many of the impacts and associated advantages and disadvantages of business practices. The Fair Work Framework defines Fair Work as work that offers effective voice, respect, security, opportunity and fulfilment; it balances the rights and responsibilities of employers and workers, and can generate benefits for individuals, organisations and society.

The retention system operates - in some ways - against the principle of effective voice, in that it creates a section of the industry which sometimes cannot voice concerns due to the commercial pressure of having to protect future business.

Lower Tier contractors do not see the retention system as enhancing business relationships but as acting in favour of the business power of the higher level clients and contractors. The main

advantages as perceived by clients and main contractors is the way in which the system operates - at relatively low cost to them - to ensure quality at project completion. However, many contractors argue that they already have a powerful reason to put quality at the top of their agendas if they want to win more work and that they would return to fix defects even without an assurance system in place.

From a macro-economic perspective, the threat of insolvency in one company creating a domino-effect and bringing down other companies is a serious concern. The current system of administering retention operates in ways which increase the risk of this happening. This is largely because the funds are not usually ring-fenced and, in the event of a company collapse their non-payment can bring down lower-level firms. The lack of security in this system - especially in an industry which operates to relatively low margins - is a serious concern.

Opportunity in the public sector is ensured by rigorous procurement methods and a need for transparency. In an industry where cashflow is vital, the best price is often deemed the best option by procurement systems. Many stakeholders in this research noted that the only important thing in construction is the bottom line. Procurement systems which use retentions as part of their contractual processes could be argued to be increasing inflation and costing the tax-payer more as well as acting against the best interests of the lower elements of the supply chain.

The retention system might also undermine the Scottish Energy Agenda, which is not only nationally but internationally significant. Some energy sector clients report that they impose a retention of 10% of the contract value for green and efficient energy initiatives. This could limit competition by putting off contractors who are capable of providing a quality construction but who fear the consequences of the existing retention process. The counter argument from the energy sector though is likely to be the “protection” of clean energy assets.

The current retention system promotes strong views on both sides of the debate, and there are good arguments for and against its continuance. From the point of view of neutral observers, however, the weight of evidence suggests that it is - in its existing form - flawed and potentially damaging - both to the sector itself and to Scotland's economy.

7. Alternative Means of Assurance

7.1 Alternatives to retentions

There are clear disadvantages to the current system of retentions as a means of providing assurance to clients and top-level contractors that work will be performed to the required standard and on time (as discussed in greater detail in section 6.4). In most commercial contracts this is achieved by retaining a proportion of the overall cost to be paid only following completion. Domestic electrical contracts almost always operate in this way. However, such “end payment” arrangements do not allow for defects which may emerge only after a short while of operation or testing and, as such, they are rarely satisfactory for larger commercial work.

Consequently, retentions - with their two-stage final payment system - are, on the surface, a sensible way of achieving assurance. As we have seen, however, they carry disadvantages of monies not being paid, small firms being penalised, other firms being discouraged from entering retention-linked bidding processes, and so on.

This research has considered a number of alternative assurance mechanisms. These were identified originally in the 2016 BEIS research in England. That evidence was updated and the search extended to include developments since that report was finalised.

All respondents participating in the full survey were asked to give their views³⁵ on the following potential alternatives to the retention system³⁶:

- Retention bonds;
- Performance bonds;
- Escrow stakeholder accounts;
- Parent company guarantees; and
- Retentions held in trust funds.

According to attendees at the workshop and interviewees there may be a trend across the industry towards not using retentions. When they are used, we were told that it is frequently the case that cash retentions are used as a standalone method of assurance.

“We offer retention bonds, but nobody takes them.”

Tier 1 contractor, roundtable event

In cases where other measures of assurance are used, most are used in conjunction with cash retentions rather than as a complete alternative to them. Those imposing retentions in Scotland,

³⁵ NB all respondents with experience of retentions in the last three years were asked to comment on these potential alternatives to retentions but, for the most part, few respondents had direct experience of alternatives, which should be taken into account when considering the findings

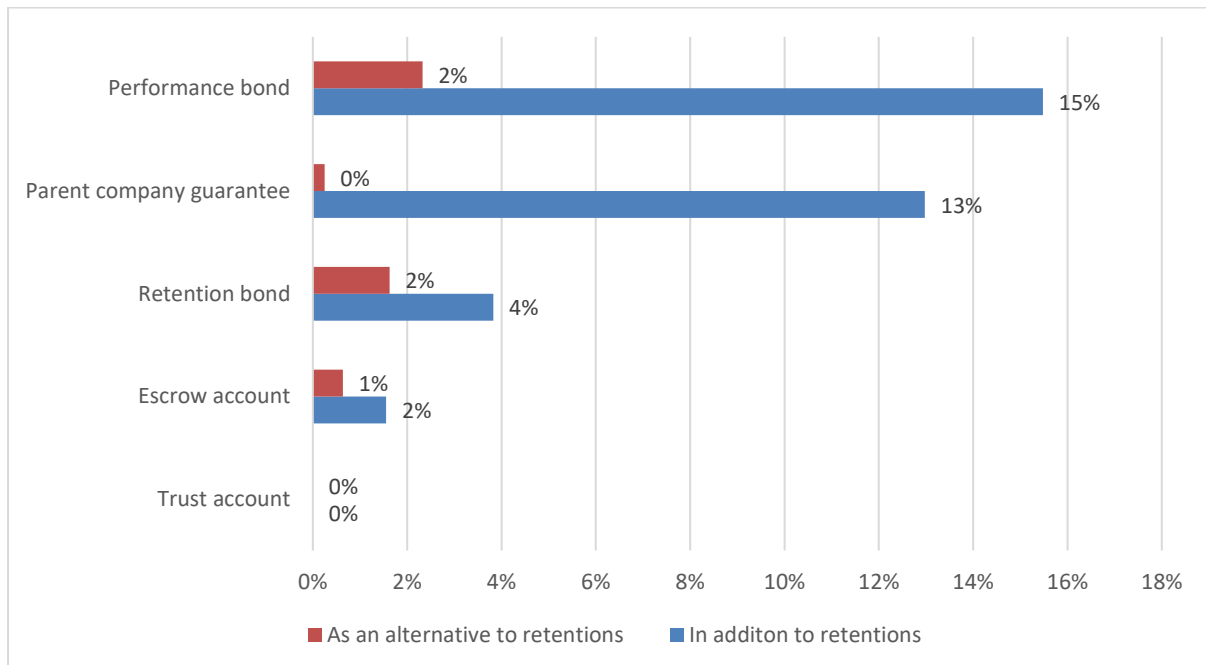
³⁶ Project Bank Accounts whilst mentioned by respondents in qualitative research were omitted from quantitative data collection tools at the request of the Scottish Government

both clients (Figure 30) and contractors (Figure 32), do not use trust accounts. Contractors reported they are subject to them in less than 0.5% of cases. The most commonly used alternative is performance bonds.

7.2 Clients perspective on the alternatives to retentions

Using an alternative without a cash retention is undertaken in less than 3% of all client contracts. The most commonly used alternative, both as a complete alternative (2% of contracts) and in addition to cash retentions (15% of contracts) is a performance bond (Figure 30).

Figure 30: Alternatives to retentions (clients)



Base: 44 Clients Pye Tait Survey 2019

Clients who use retentions (either alone or alongside an alternative), said that they do so because cash retentions are regarded as standard practice and the easiest option (53%). The next most important reason was that they provide a guarantee “of some sort” (35%). Others suggested that cash retentions create a direct relationship with the contractor, and that contractors do not accept alternatives.

“Standard recognised formula that works acceptable to both parties.”

Manufacturing sector client

“Retentions are essential, they are part and parcel of the construction industry to ensure work is carried out satisfactorily”

Healthcare sector client

Clients believe that the most effective assurance method for acting as a surety against defects is retentions (8 out of 10) (Figure 31). Performance bonds were given an average rating of just under 5 but the most common answer to this type of assurance (the modal answer) was 8. This means that most clients rated performance bonds at 8 out of ten, the average being brought down by a few very low scores. All other alternatives had a modal response of 1 from clients.

“Contractors balk at performance bonds, then use them on subcontractors.”

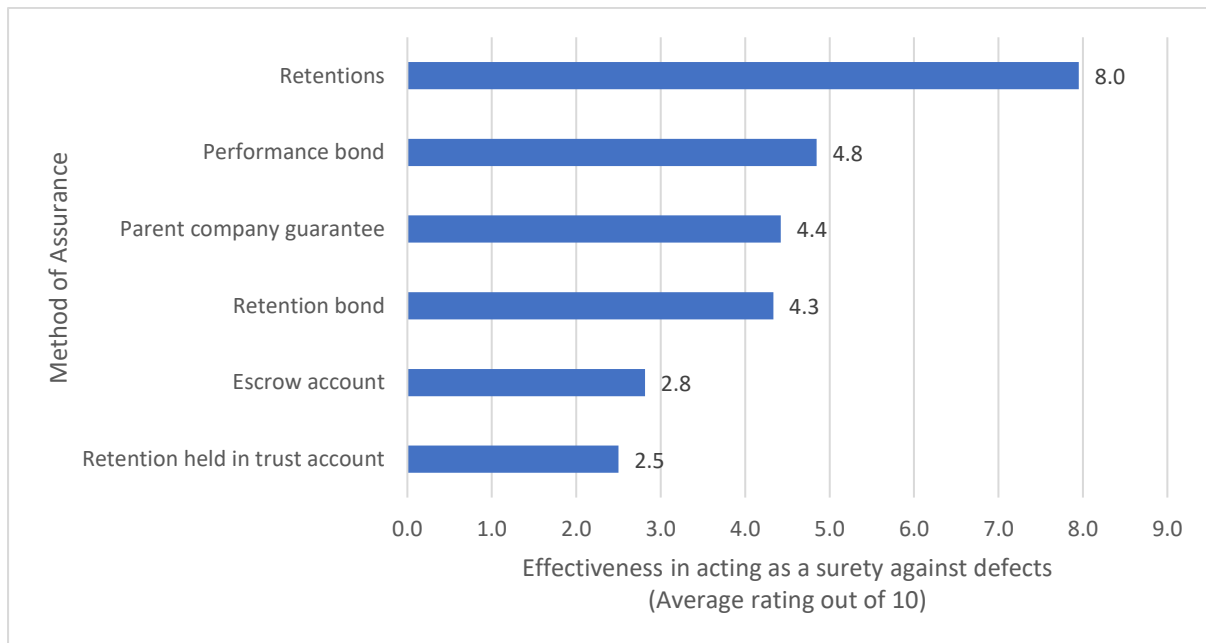
Public sector client

While surveyed clients generally use retentions in preference to any other mechanism for assurance, several acknowledge that the system could be better regulated and could operate more effectively. Some suggest holding retention monies in escrow accounts, but others are of the opinion that these would be expensive to administer. A few clients acknowledged that inertia is a major factor in the continued use of retentions in the industry, and that they would be interested in any improvements to the system or any alternatives which did not increase overall costs.

“Open to new approaches, as the whole construction sector should be. Retentions work for us, but we'd happily take part in different systems instead.”

Education sector client

Figure 31: Effectiveness of alternatives to retentions (clients' views)³⁷



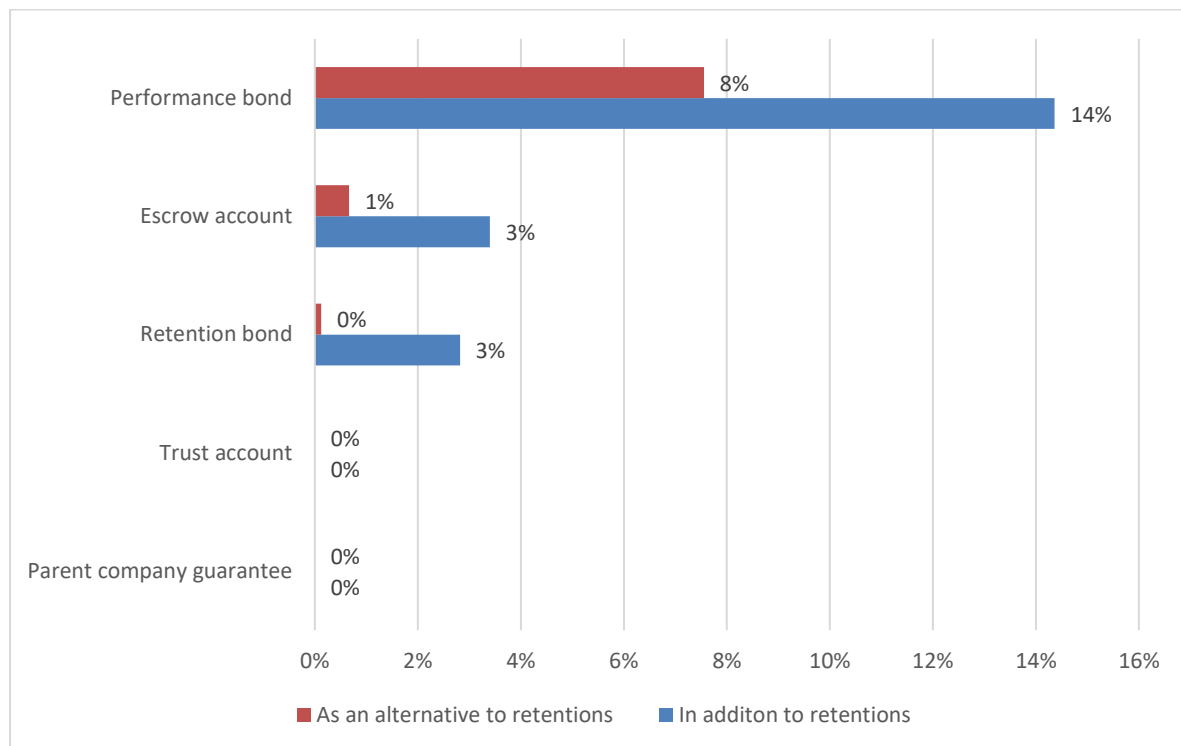
Base: 63 Clients Pye Tait Survey 2019

7.3 Contractors perspective on alternatives

Using an alternative without a cash retention currently appears to be the case in less than 4% of all contracts that involve imposing retentions on subcontractors. The most commonly used alternative for contractors, both as an alternative (8% of contracts) and in addition to cash retentions (14% of contracts) is a performance bond (Figure 32).

Parent company guarantees, and trust accounts appear not to be used by those who were surveyed and who impose retentions on subcontractors.

Figure 32: Use of alternatives to retentions (contractors)



Base: 22 Contractors Pye Tait Survey 2019

Contractors who use retentions said that retentions were the easiest option because they are well understood and easy to administer (83%).

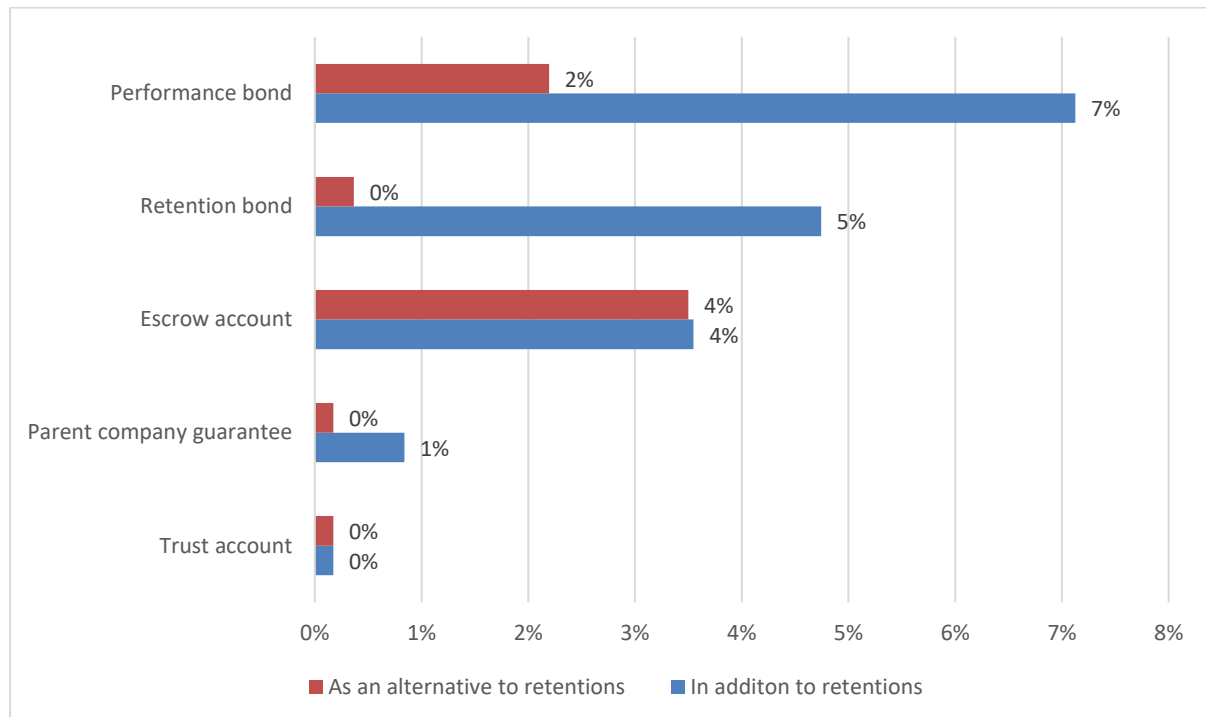
Specific contractors' perspectives on alternatives (those who are subject to retentions)

Contractors who are currently subject to retentions are also subject to other means of assurance without a cash retention in less than 4% of all contracts. For these contractors, the most commonly-used complete alternative to retentions (4% of contracts) is escrow.

When used in conjunction with cash retentions performance bonds appear to be the most common (Figure 33).

The proportions using alternatives in any form - either by themselves or in conjunction with cash retentions - is, however, quite low.

Figure 33: Use of alternatives by contractors subject to retentions.



Base: 56 Contractors Pye Tait Survey 2019

Contractors who are subject to retentions believe that the most effective assurance method against defects is retention. But the score they gave - 6.3 out of 10 - was modest at best and suggests a somewhat lukewarm appraisal (Figure 34). The modal response to cash retentions was, however, 10 which suggests that most contractors experiencing current retentions regard them as highly effective. The comparison of the mode of 10 with the mean of 6.3 indicates that contractors are polarised in their views on retentions with large proportions giving the system very low scores. All other alternatives had a modal response of 1 from this group.

The responses in Figure 34 must be considered in the light of the extent to which contractors will not be entirely familiar with alternatives.

Qualitative feedback suggests that some contractors who accept retentions and agree the system works as a means of assurance would like to see some changes to the system. Improvements suggested are centred on:

- the perceived need for funds held in retention to be protected and not threatened by client or main contractor insolvency,
- the need for retentions to be released on time and without the need for multiple requests,

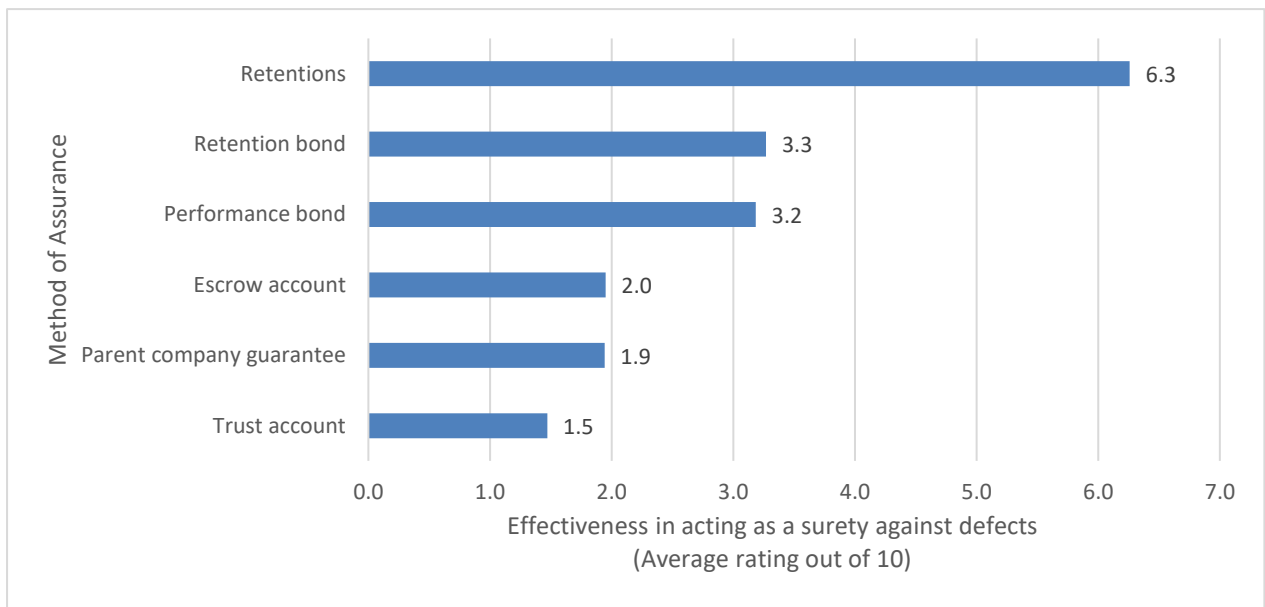
- changing the system to eradicate the commercial dominance of the main contractor or client in terms of future work, and,
- enhancing the system to ensure that clients and main contractors cannot derive a commercial, financial benefit from it.

Some suggest a similar system to the Landlord and tenant deposit scheme,

“Can't avoid having retentions. Whole system needs a re-think, with third party, impartially held (perhaps government held) trust accounts being the best option.”

Plastering contractor. Micro organisation

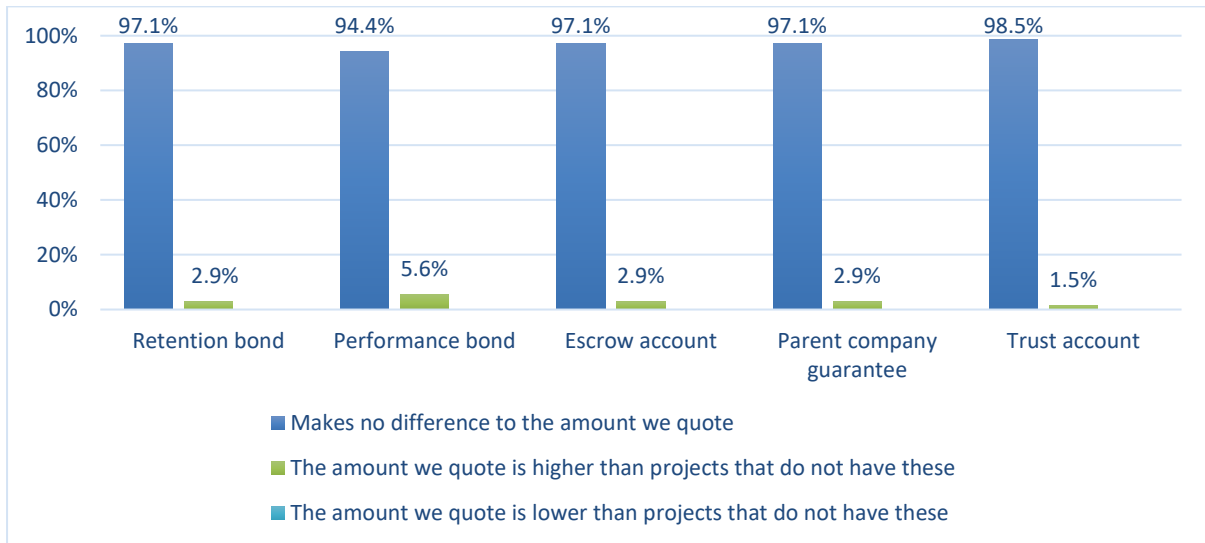
Figure 34: Effectiveness of alternatives (contractors subject to retentions)



Base: 27 Contractors Pye Tait Survey 2019

In over nine-tenths of cases (94-99%) where alternatives to retentions have been experienced they appear to have no impact on the price quoted for work (Figure 40). Those who do increase cost, on average, do so by 1% or less. It is unclear why performance bonds impact quotes to a greater extent than others alternatives.

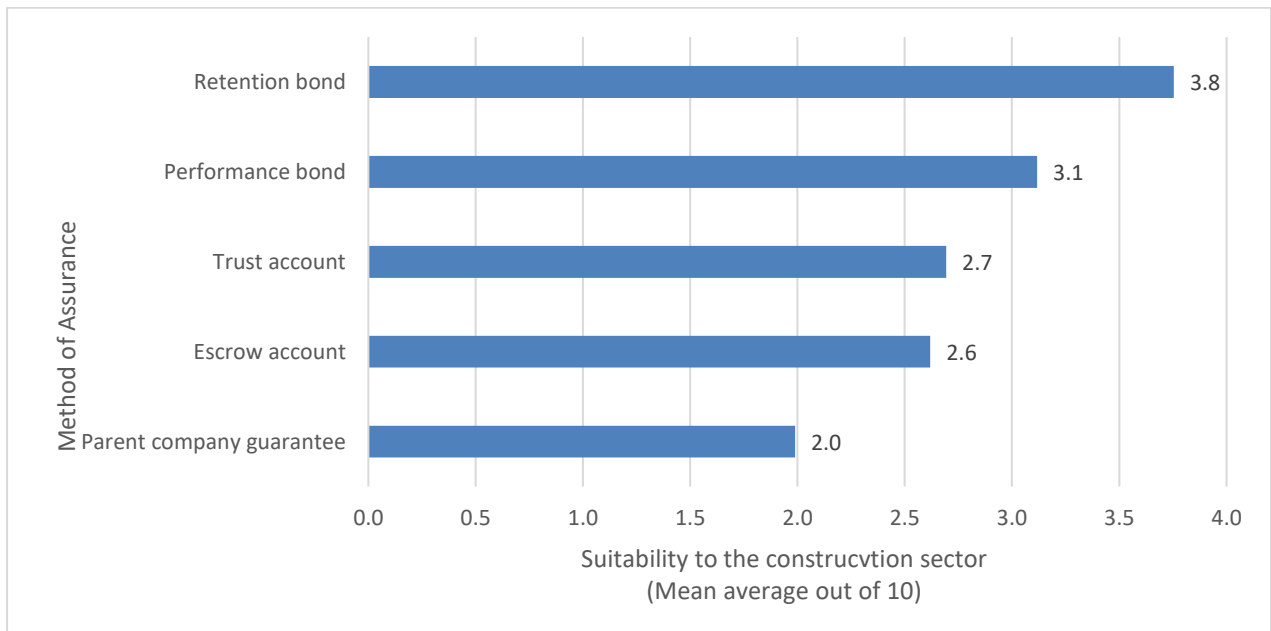
Figure 35: Impact of alternatives on quoted prices (contractors subject to retentions)



Base: 72 Contractors Pye Tait Survey 2019

In terms of suitability, most respondents scored just 1 out of 10 for all alternatives to retentions. Average scores favoured retention bonds (3.8) and performance bonds (3.1) (Figure 36). These scores are low but may simply reflect a lack of full awareness.

Figure 36: Alternatives to retentions - suitability (contractors subject to retentions)



Base: 102 Contractors Pye Tait Survey 2019

8. Conclusions

8.1 Study Aims

The main aim of this research (see section 1.2) was to provide a qualitative and, where possible, quantitative assessment of the costs and benefits of the contractual practice of holding retentions, and of alternative mechanisms, under construction contracts in Scotland. The objectives are set out below with the relevant conclusions.

A retention is a percentage of the value of a construction contract which is held by the client as an assurance of project completion and as a safeguard against defects which may subsequently develop and which the contractor may fail to remedy.

8.2 Extent of Retention Usage

Not all clients and contractors make use of the retention system but, for those that do, retentions appear to be used by clients in around 81% of construction contracts in Scotland. Further down the supply chain they appear to be required in half of all contractor-originated contracts.

Where assurance is required, retentions remain the most-utilised method of assurance.

8.3 The rationale and legal position in relation to the use of retentions

The main reason for using retentions is to mitigate the risk down the supply chain of work not being completed on time or to the required quality. Around 5% of the value of a contract is withheld - half to be paid on practical completion and the other half after a defects-liability period of about twelve months.

Project value is the main driver of the proportion retained in any contract. This can vary from about 3% to possibly as much as 10%. The length and quality of the relationship between client/contractor and sub-contractor can also be a major factor in whether a retention is applied and the percentage retained.

The 2011 legislation on the subject tightened up the way that retentions could be set (i.e. among other things, they must be related to performance in the specific contract and not related to any other contract). Proposed legislation (the Aldous Bill) may establish further rules requiring the use of a separate deposit scheme if it is passed into law. However, the Scottish Government is already taking several steps, in the public sector, to better protect those who are subject to retentions. It was generally noted in qualitative research that the Scottish Government is an example setting institution in Scotland and that when something becomes practice in the public sector it will often subsequently be replicated in the private sector.

In theory the parties to a contract involving a retention can use the law to pursue a defaulting sub-contractor or slow- or non-payment of the monies due. Our research showed almost no evidence of recourse to law under the current system. For the client/contractor the monies held back are usually sufficient to remedy any defects and for the sub-contractor who is not paid on time or at all commercial considerations (further access to work) may prevent them from pursuing the retaining organisation in law.

8.4 A summary of the advantages and disadvantages of retentions

While the general perception from the Scottish construction industry on the practice of retentions is negative, the overall feeling from discussions, interviews, and surveys conducted during this study is that clients are generally supportive, but contractors - especially those further down the supply chain - regard it reluctantly, as a necessary evil to be worked around.

The retention system is perceived as carrying a number of advantages and disadvantages but generally by different actors in the supply chain.

Advantages

- Widely understood as a system;
- Relatively easy to operate with established legal protocols in construction contracts;
- Rarely results in protracted legal action;
- Seen by clients and main contractors as relatively effective at either getting defects fixed by the sub-contractor or being able to fix them with the retained monies;
- Often used as working capital and in this sense retentions funds business growth as they can fund the projects of those further up the supply chain;
- Offers a protection of market share for those main contractors.

Disadvantages

- Relatively inconsistently applied;
- Sub-contractors see the outcomes as unpredictable;
- Monies are often used for cash-flow purposes by the companies holding the retentions;
- Most retained money is held in general bank accounts and is therefore extremely vulnerable to insolvency;
- For those lower down the supply chain the practice can hinder business growth;
- Retentions are often seen to damage working relationships;
- Retentions can be costed into the contract price to offset anticipated losses, thus causing an inflationary effect;
- Regarded by companies further down the supply chain as a mechanism for squeezing their cashflow and giving a commercial advantage to companies further up the chain

8.5 The costs, benefits, and other impacts

The main benefit of the system of retentions is that it provides a relatively well-understood and straightforward way for clients and main contractors to ensure the requisite quality in a construction job.

Clients also claim that it strengthens working relationships with contractors. This feeling is, however, not shared by many contractors further down the line.

However, a significant proportion of all withheld money (around 13%) is never repaid even after the end of the defects-liability period.

We have no way of knowing how much of this 13% will have been expended on rectifying defects - or indeed, whether those defects would have been agreed as defects by the sub-contractor - but much of the retained cash is certainly held in general bank-accounts and therefore benefits the holders commercially.

Poor cashflow is a major reason for construction companies going out of business and there is some evidence that unpredictability in the retention system can be an important drag on planning in smaller businesses. If there is reason to doubt whether monies will ever be repaid this can have serious implications for the viability of some companies.

Some 65% of those who are subject to retentions say that it acts as an inhibitor on their business growth. This is consistent with the view from qualitative feedback that retentions money is needed to grow a company. This view is not held by clients and main contractors who believe that the retention system enhances business growth.

There are a number of other factors that impact those further down the supply chain, including administration cost and non-payment. Payment of retentions is the norm. The main reason given for non-repayment is that contractors do not return to correct defects.

A proportion of construction companies actively avoid work carrying retentions. They regard the system as too risky, and burdensome in administration, alongside the perception that the system is abused, or at least open to abuse, by clients and main contractors. This may represent a cost to the Scottish economy in that it may reduce the number of competent companies competing for work.

There is reason to suspect that contractors inflate their bids by a small percentage (possibly up to 5%) to take account of the possibility of retention money not being repaid. Although there is only circumstantial evidence for this, to the extent that it occurs it represents an element of unwanted inflation. For public contracts this could impact directly upon the public purse.

8.6 Alternatives to retentions and the rationale for their use.

In practical terms there are the following alternatives to the system of retention:

- Retention bonds;
- Performance bonds;
- Escrow stakeholder accounts;
- Parent company guarantees; and
- Retentions held in trust funds.

The current use of alternatives is low with performance bonds used most frequently (by 15% of clients).

It is more often the case that an alternative is used in addition to retentions rather than as an alternative. Qualitative research noted that cash retentions may continue to be used as they are better understood.

The advantages and disadvantages of the two most favoured alternative are as follows:

Performance or Retention Bonds

The contractor enters into a legal arrangement with the bond provider to pay a certain premium. The bonds act as an insurance policy, paying the client for remedial work if it is agreed and required.

Advantages

- Performance Bonds remove the need for any contract monies to be withheld - thus increasing cash flow for smaller firms.
- They also remove the need for additional administration costs to the client and the contractor.

Disadvantages

- Companies have to pay a premium for the Bond which is related to the size of the contract (Bonds normally cover 10% of contract value)
- Protracted legal arguments can break-out over the responsibility for defects.

Escrow accounts

An escrow account is held by a third party - usually a finance house or bank. Monies equivalent to retention amounts are paid by the client or main contractor into the escrow account and stay there until all parties agree they can be released to the sub-contractor.

Advantages

- Retention monies are removed from the client/main contractor and are held in a neutral account.

- Sub-contractors can be sure that the monies will be released on time as long as contractual targets are met.

Disadvantages

- Sub-contractors have to wait for their money
- Protracted legal arguments can break-out over the responsibility for defects.

Calculating the costs to the Scottish economy of the system of retentions is virtually impossible because, due to commercial sensitivities, we can only provide an indication the overall total value of contracts carrying retentions, retentions plus alternative methods, alternatives by themselves, or no methods of assurance at all.

We do know, however, that around 80% of clients impose retentions on their contractors and that, where these are imposed, they are invariably passed down the supply chain.

The total value held in retentions in Scotland is estimated at around £124m. We can also be fairly certain that around 13% of the 5% retained cash is never repaid to the sub-contractors (i.e. around £16m per year). This money benefits the larger clients and contractors and disadvantages the smaller firms of the sector.

9. Recommendations

There is strong reason to accept that the system of retentions, as currently operated as amended by the 2011 legislation, is not working to the advantage of the Scottish construction sector.

There is, however, no powerful evidence that its costs are sufficiently onerous as to mandate significant action towards alternatives.

In our view the most compelling reasons for change are not commercial or economic but those of efficiency and fairness. Smaller construction companies have no sense that the system will operate consistently and there is clear evidence that a significant proportion of retention money never finds its way to the sub-contractors to whom it is due.

We would not therefore recommend a legislated switch to one of the alternative means of assurance - e.g. performance bonds. The industry is already aware of these alternatives and they are already used to a small extent alongside retentions.

However, we would certainly recommend that a fairer, more neutral and more protected approach to retentions be required by the Scottish Government. It seems possible that this might be the outcome of a successful progression of the Aldous Bill in the UK Parliament, but amendments might yet be launched and passed. However, the Scottish Government is already action in the public sector to improve the practice, notably around the prompt payment of retentions and having that money secured in a separate project bank account.

A requirement for retentions to be held in a protected and separate location would meet almost all of the serious criticisms of the current retention system.

Should this not come to pass, and should it not be possible to institute in Scotland alone (perhaps due to restraint of trade issues), we would recommend a standard approach which requires performance bonds and which outlaws retentions in construction projects.

Appendix 1: Events since the BEIS report of 2016

Background note on events since publication of BEIS Report on Retention Payments

Pye Tait Consulting was commissioned by the then Department of Business, Innovation and Skills (BIS) to produce a report on the practice of retentions in the construction sector in England. This was published in October 2017³⁸.

The report established that an average of 4.8% (often rounded up to 5%) of the contract value is usually retained until project completion. This figure is widely cited as evidence in the current debates on retentions.

Based on the report results, a Department for Business, Energy and Industrial Strategy (BEIS) consultation was launched on the potential introduction of a retention deposit scheme, which ran from October 2017 to January 2018³⁹. In this context, while the BIS/BEIS report provided solid evidence on the practices of retention payments in England, the present debate on retentions has been fuelled by the collapse of construction giant Carillion in early 2018. In this context, the BIS/BEIS report has served as an evidence base for diverging demands on retentions reform by different groups of construction trade associations.

At present, the construction sector remains split on the issue of retentions. As a common denominator, the trade associations of the UK construction industry agree that the presently-applied practice of retentions has to be reformed, as it may generate business-threatening cash-flow issues down the supply chain. There is, however, no consensus for an approach to resolve the issue. But several construction heavyweights such as the Federation of Master Builders (FMB) and the Specialist Engineering Contractors (SEC) back the introduction of a retention deposit scheme.

This is also the approach taken by the so-called Aldous Bill, aiming to amend the Housing Grants, Construction and Regeneration Act, 1996 to give the Secretary of State at BEIS a mandate to implement the amendments introduced by the bill. Introduced as a private bill by the Conservative MP Peter Aldous, the bill calls for the creation of a compulsory and independently managed retentions deposit scheme, in which all retentions would be held. The aim is to protect construction businesses from the effects of insolvencies and to standardise the release of retentions. Non-complying companies would be forced to refund any retentions held within seven days. In addition, the bill calls for the introduction of a standardised system of releasing retentions, though not providing any specifics⁴⁰.

The bill is designed to apply across the UK, however, its approval and implementation procedure among the devolved nations is rather complicated. For instance, Welsh Ministers would have to

³⁸https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/654399/Retention_Payments_Pye_Tait_report.pdf

³⁹ <https://www.gov.uk/government/consultations/retention-payments-in-the-construction-industry>;

⁴⁰ Peter Aldous, MP, 2018, Construction (Retention Deposit Schemes) Bill (HC Bill 148), https://publications.parliament.uk/pa/bills/cbill/2017-2019/0148/cbill_2017-20190148_en_2.htm#l1g1

introduce a related statutory instrument to be passed by the Welsh Assembly⁴¹. Similarly, the Scottish Parliament would have to approve the bill by “affirmative procedure”. In the case of Northern Ireland, a Royal Order in Council could introduce the provisions of the bill as implemented by the Secretary of State in Northern Ireland.

The bill has gained the support of 250 MPs across the political spectrum but its second reading has been delayed several times since 2018⁴². It is now set to have a second reading on March 22, 2019⁴³. The bill is also supported by 80 trade bodies, including, apart from the FMB and ECA, the Building Engineering Services Association (BESA) and the Chartered Association of Building Engineers (CABE) amongst many others⁴⁴.

On the other hand, Build UK, the Civil Engineering Contractors Association (CECA), the Chartered Institute of Credit Management (CICM), and the Construction Products Association (CPA) advocate the gradual phasing-out of retention payments altogether by 2025⁴⁵.

⁴¹https://publications.parliament.uk/pa/bills/cbill/2017-2019/0148/cbill_2017-20190148_en_2.htm#l1g1
http://buildersmerchantsnews.co.uk/news/fullstory.php/aid/15738/Construction_Retention_Deposit_Schemes_Bill_2017-19_Lessons_from_Carillion_reform_of_the_use_of_retentions_in_the_construction_industry_at_last_.html

⁴² <https://www.newcivilengineer.com/latest/exclusive-aldous-doubts-his-retentions-bill-will-ever-be-passed/10039568.article>

⁴³ <https://services.parliament.uk/bills/2017-19/constructionretentiondepositschemes.html>

⁴⁴ <http://www.facilitatemagazine.com/news/construction-sector-heavyweights-back-aldous-bill/>;
[https://www.designingbuildings.co.uk/wiki/Construction_\(Retention_Deposit_Schemes\)_Bill_2017-19](https://www.designingbuildings.co.uk/wiki/Construction_(Retention_Deposit_Schemes)_Bill_2017-19)

⁴⁵ <https://builduk.org/wp-content/uploads/2018/05/Andrew-Griffiths-Payment-Practices-in-Construction-24.05.2018.pdf>

Appendix 2: Commentary on Research Questions

As part of the invitation to tender for this study the Scottish Government listed 23 research questions which it wished to be answered if at all possible.

When the questionnaires were designed for the primary research all questions were checked against the 23 research questions by the Scottish Government and Pye Tait Consulting.

Whilst most research questions have been addressed at length in this report, there are five exceptions that were not completely answered - usually by reason of the reluctance of respondents to reveal detailed data. These are discussed below.

The number of contracts which included retentions in both the public and private sectors in each of the last three years.

This question cannot be answered without knowledge of how many contracts are issued in the £14bn per year Scottish construction industry in a given period of time. Even if it were possible to conduct the necessary full census of public and private construction companies, the time and administration demands which would be placed on organisations and companies would be extremely high.

We have, however, come to an estimate of the proportion of contracts containing retentions and issued by those involved in retentions (clients - almost 90%, and contractors - over half).

The triggers for release of retention payments and the value of the retentions to be released at those trigger periods.

The first part of this question has been answered in that we know that there are two triggers: “practical completion” and the end of a “defects-liability period” (usually one year but sometimes longer). In most cases these triggers do not automatically result in the release of the monies. Sub-contractors usually have to request their payment.

Actual values have been impossible to estimate because clients and contractors are unwilling to release details of contracted total amounts - for reasons of commercial sensitivity and the administrative costs involved in locating every project and its details.

It is usually the case that half the retentions money is released on practical completion and half at the end of the defects liability period.

Using our estimate of around £124m being held in retentions at any one time this means that each of the two triggers has the potential to release around £60m per year.

The reasons for late payment of retentions and the value and number of these late payments as well as information about how late they were.

For the same reasons as for the questions above, it was not possible to come to a figure for numbers and amounts of late payments. In the primary research we were able to acquire financial data from a very small number of companies and this is stated and discussed in the body of the report. However, these figures are not a reliable estimate as they derive from too few companies - most of which are small sub-contractors.

None of the larger companies or clients were prepared to answer questions on amounts or time involved in late payments.

Qualitative evidence from interviews and other discussions indicates that late payment is extremely common but the reasons for this can range from the sub-contractor simply not asking for payment, to lengthy disputes about defects. In some cases, we were told, payments can be delayed by two or three years after the end of what the contractor believes is the end of their defects-liability period.

As we say in the body of the report - it appears that many sub-contractors simply do not bother to ask for payment due to the administrative complexity and - especially - with a view to winning future work from the client or contractor in question.

Retention payments - the impact of location on the use of retention payments.

It was not possible to come to conclusions on the matter of location as the survey returned responses from a statistically small number of contractors who are subject to retentions. However, discussions and interviews confirm that - even where location appears to be a factor (for example in the north of Scotland) - the real reason for better payment practices may well lie in relationships rather than geography.

The imagined economic impact of not operating a retentions system.

Respondents found it extremely difficult to answer this sort of “contre-monde” question. Attempts to address it resulted in the now-familiar polarity of views between clients and large contractors on the one hand and other Tier 1, 2 and 3 contractors on the other.

There was also the issue of whether the phrase “not operating a retentions system” meant operating without anything in its place or operating under a different assurance system.

Clients and Tier 1 contractors tend to support the retention system as being a tried and tested way of assuring quality in a project while the second group tend to see retentions as acting against the interests of smaller companies in the sector.

Both recognise that some sort of assurance system is essential, and both are largely of the opinion that, as long as retentions were replaced by an equally effective and assuring alternative, it would work just as well. Some supporters of retentions argue that alternative systems require a “learning period” and will entail costs for the sub-contractors (in such things as escrow fees and fees for performance bonds).

Clearly, not operating any assurance system at all would carry potentially significant economic costs - the prime one being the costs to clients and top Tier contractors of pursuing sub-contractors to fix defects.

Should a retention system be replaced by another form of assurance, however, the economic costs could be zero or even negative (i.e. benefits). These have been discussed in the body of the report.