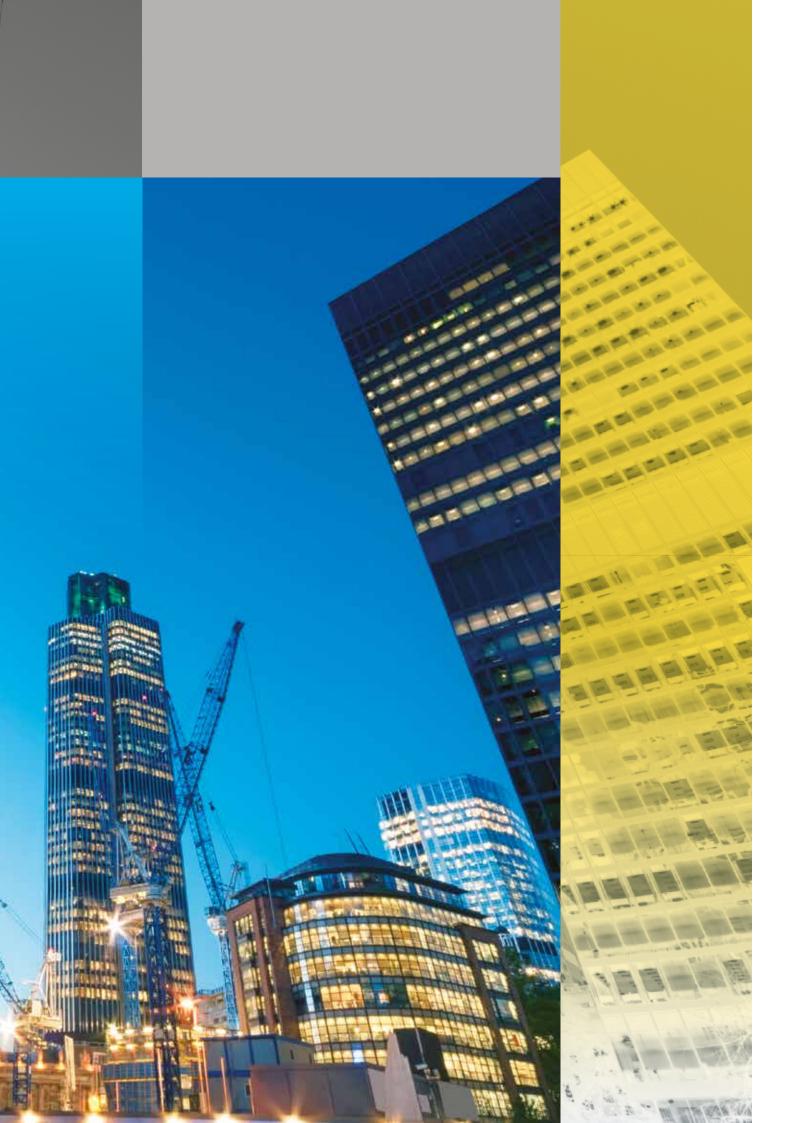




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Welcome to the Sixth Annual Arcadis Global **Construction Disputes** Report 2016, which reveals key themes and insights into the global construction disputes market. Any dispute is case specific, so to endeavour to group causes and develop averages can risk omitting critical information related to the overall nature of the dispute. However given our range and depth of the coverage, dispute trends, both globally and regionally, are indicative of market trends.

We have taken an in-depth, data-driven review of our projects and disputes globally in 2015 and focused on five key areas: the length of disputes, average value, common causes, most popular resolution methods and region-specific nuances. This report also includes an overview of the macroeconomic market position and goes on to provide insight into the Middle East in a regional commentary.

It is commonly known in the industry that a substantial percentage of disputes are settled before they become formalized. In the unlikely case a dispute is to materialize formally, both parties involved could see themselves in a situation where differing views and interests could prolong the dispute. Setting aside the different drivers and motives of both parties involved, it is generally agreed that a speedy settlement of any dispute is desired, but why?

- To use current and available people and documents, which are directly relevant;
- to maintain cash flow within the supply chain;
- to maintain party relationships;

- to keep the respective delivery teams focused on delivering the project; and
- to avoid a cumulative effect of minor issues being aggregated into large disputes.

These reasons are largely selfevident, and it is aspirational to suggest that all disputes can or need to be settled quickly. Even so, we must continue to embrace the many initiatives that are being deployed by construction professionals, lawyers and the judiciary across the globe, and do all we can to facilitate the settlement of such disputes. This means that effective dispute avoidance mechanisms need to be actively deployed as early as possible within a project, and involvement of the right expertise and support at the right time is critical.

In 2015 the construction industry faced head winds in particular with commodity and currency volatility. This resulted in many projects and programs being faced with a very different economic business case than had been planned, which contributed to some of the issues and disputes that have materialized. In particular the





THE WORLD ECONOMY IN 2015

The economic trends that impacted disputes

The global recovery from the 2008 financial crash continued in 2015, but at an ever slowing pace. Future prospects are looking increasingly fragile. The baseline projection for global growth in 2016 is a modest 3.2% according to the International Monetary Fund, which is broadly in line with 2015, but a 0.2% downward revision from January 2016. Recovery is projected to strengthen in 2017 and beyond, driven primarily by developing economies as conditions in these stressed markets gradually normalize. However, there are big risks in the forecasts and some turbulence is expected in markets, which could, in turn, affect the level of construction disputes.

The end of 2015 and beginning of 2016 saw renewed episodes of global asset market volatility. Commodity and currency prices have also fluctuated a great deal, increasing the levels of uncertainty underpinning commercial arrangements. Despite an improvement in market sentiment during the first quarter of this year, business conditions remain challenging, highlighted by weak financial data from China and further loosening of fiscal policy in Europe and Japan.

Much like the aftermath of the financial crash of 2008, the loss of growth momentum in some markets including Russia and Brazil is likely to impact on construction volumes, leading to disputes surrounding the cancellation, suspension, termination or restructuring of projects. Elsewhere in markets that are seeing some recovery in demand such as mainland Europe, persistently low background inflation can be expected to affect contractors' ability to secure expected levels of returns on projects.

A major cause of the global economic slowdown has been a fall in investment demand. This has been the case particularly for commodity exporting countries whose terms of trade have collapsed. If the forward pipeline of construction-related projects further weakens in these countries, those involved in construction projects may focus efforts on maximizing returns from existing projects through disputes rather than pursuing future projects.

China is navigating a complex transition away from a high growth, investment and export-



led economy towards a more sustainable path based on consumption and services. In the meantime, Chinese developers and contractors have been diversifying away from home markets. While they have shown themselves to be adept at operating in overseas markets, these organizations are challenged to adapt to the business cultures and construction practices of mature developed markets. Two unexpected spillover effects of China's slowdown in international markets could be an increase in competition for work – resulting in lower entry prices – and an increase in disputes as new entrants to markets align themselves to established ways of working.

As previously stated, turbulence in commodity and currency markets over the past 12 months may have exposed clients and their contractors to unexpected financial outcomes that could potentially trigger problems on a project. Crude oil was priced at \$44 a barrel in April 2016, down 32% year on year, but up by over 50% in the first quarter from the low point of the cycle. Similar movement has been seen in currencies. These wild fluctuations are likely to affect some parties in a supply chain if appropriate price hedging has not been put in place. Currencies and commodities are likely to remain unstable and could well trigger wider problems on projects going forwards.

Finally, in 2016, no review which includes the UK and Continental European markets would be

complete without a mention of Brexit¹. Brexit fears appear to be having an impact on investment decisions, but the direct impact of either outcome of the referendum on construction is likely to be more limited. However, given that so much of the debate in connection with the referendum concerns free-movement of labor, it is conceivable that any changes to labor market rules could affect the ability of contractors to meet long-term project commitments. This is a long-term risk, but as skills shortages are such a big issue in many markets, the ability of designers and contractors to find the abilities to deliver projects to cost, time and quality expectations, could turn out to be a significant trigger for project problems and possible disputes over the next few years.

On the bright side, despite the global slowdown impacting on economies worldwide, one benefit is likely to be interest rates remaining low, as countries continue to apply fiscal stimulus. We are therefore unlikely to see a reduction in viability due to increases in the cost of finance.

All together these factors will contribute to a challenging economic environment over the next year both in emerging and developed economies.

^{1.} The referendum vote on whether the UK will withdraw from the European Union.



OVERALL FINDINGS

- The global average value of disputes was US\$46million.
- The global average length of disputes was 15.5months.

We define a 'dispute' as a situation where two parties typically differ in the assertion of a contractual right, resulting in a decision being given under the contract, which in turn becomes a formal dispute.

The value of a dispute is the additional entitlement to that included in the contract, for the additional work or event which is being claimed. The length of a dispute is the period between when it becomes formalized under the contract, and the time of settlement or the conclusion of the hearing.

The results below show that disputes globally have marginally reduced, but the durations have markedly increased. The increased length of disputes will have multiple effects for both parties and are likely to, ultimately, have a negative impact on the construction industry.



REGION	DISPUTE VALUES (US\$ MILLIONS) LENGTH OF DISPUTE (MON								THS)			
	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015
Middle East	56.3	112.5	65	40.9	76.7	82	8.3	9	14.6	13.9	15.1	15.2
Asia	64.5	53.1	39.7	41.9	85.6	67	11.4	12.4	14.3	14	12	19.5
North America	64.5	10.5	9	34.3	29.6	25	11.4	14.4	11.9	13.7	16.2	13.5
UK	7.5	10.2	27	27.9	27	25	6.8	8.7	12.9	7.9	10	10.7
	33.3	35.1	25	27.5	38.3	25	10	11.7	6	6.5	18	18.5
GLOBAL AVERAGE	35.1	32.2	31.7	32.1	51	46	9.1	10.6	12.8	11.8	13.2	15.5



Dispute causes – poor contract administration most common

2015 RANK	CAUSE	2014 RANK
1	Failure to properly administer the contract	1
2	Poorly drafted or incomplete and unsubstantiated claims	2
3	Errors and/or omissions in the contract document	3
4	Incomplete design information or employer requirements (for Design and Build)	New
5	Employer/contractor/subcontractor failing to understand and/or comply with its contractual obligations	4

A new cause in the rankings is related to incomplete design information, which is considered to be linked generally to the poor quality of design information, and a proportionate increase globally in the use of design and construct forms of contract. The implementation of EPC forms of contract have been particularly problematic in certain industries.

The property/real estate sector had the most disputes. This was closely followed by the social infrastructure/public sector, albeit the natural resources sector has some of the largest disputes.

The highest value dispute handled by the team in 2015 was worth US\$2.5bn.



Resolving disputes – let's talk

2015 RANK	METHOD OF ALTERNATIVE DISPUTE RESOLUTION	2014 RANK
1	Party to party negotiation	1
2	Mediation	2
3	Arbitration	3

The most important activities in helping to avoid a dispute were considered the following:

- 1 Proper contract administration
- 2 Fair and appropriate risk and balances in contract
- 3 Accurate contract documents

In addition to this, one feature that was also discussed within the key inputs to avoiding a dispute was the role (and perhaps return) of the need for a truly independent certifier.

In reviewing the overall findings we find that, when compared to previous years, we gain the following headline insights into global disputes:

- They have decreased marginally in value;
- they have increased in duration;
- the most common cause is still a failure to administer the contract:
- Where a Joint Venture (JV) as in dispute, 25.5% of cases were due to a JV-related issue; and
- party to party negotiation is still the most common form of resolving disputes.

We have found that these trends are symptomatic of the work that we have undertaken, and provides a helpful insight into global trends.

Programs of work are being aggregated into various delivery models, at a time when key features are evident in the global market, and may well be of a direct contributory relevance to the disputes themselves, including:

- Commodity and currency volatility;
- legacy effects of tenders priced in the immediate aftermath of the financial crisis and the ensuing economic recession;
- rising global cost base and strain upon the supply chain;
- scarcity of labor and professional staff;
- significant reduction in the oil and natural resources price that has caused a radical rethink of strategy and delivery across the major programs.

Beneath the headline data of our research, many of these factors have also proved to be a contributory feature within the dispute environment and are considered to be key factors in ensuring that you "Don't get left behind".



MIDDLE EAST

	DISPUTE VALUES (US\$ MILLIONS)						LENGTH OF DISPUTE (MONTHS)					
	2010	2011	2012	2013	2014	2015	2010	2011	2012	2013	2014	2015
Middle East	56.3	112.5	65	40.9	76.7	82	8.3	9	14.6	13.9	15.1	15.2

The Middle East region saw its dispute values increase, once more, to their highest value since 2011. However, the amount of time taken to resolve disputes remained more-or-less static.

2015 RANK	CAUSE	2014 RANK
1	A failure to properly administer the contract	1
2	Poorly drafted or incomplete and unsubstantiated claims	2
3	Incomplete design information or employer requirements (for Design and Build)	New

A failure to properly administer the contract remained the most common cause of dispute in the region, followed by poorly drafted or incomplete and unsubstantiated claims which, once again, demonstrates the need to get the basics right from the very start.

In the Middle East, where a JV is in place, the proportion of disputes caused by a JV-related issue dropped in 2015, moving down almost ten percent to 32.3%



The three most common methods of Alternative Dispute Resolution that were used during 2015 in ME were:

- 1 Party to party negotiation
- 2 Arbitration
- 3 Mediation

In an economic environment impacted by the oil price, the market continues to see a restriction in decision-making within the industry. This drives a lack of appropriate delegation to project management consultants and client representatives, thereby prolonging critical commercial decisions and generating cash flow issues related to instructed variations. Some clients are looking to spread cash obligations by prolonging commercial payments and negotiations. Additionally, the tendency to utilize a traditional contracting strategy is ill-suited to the continuing size and complexity of the programs. This is exacerbated by the propensity of clients to transfer the majority of project risk to contractors.

However, there is a desire from all parties to better streamline formal dispute processes, reduce administrative burden and create a fairer contracting model. There is a noticeable shift in the use of Mediation and Adjudication instead of the traditionally contracted Litigation/Arbitration methods. All parties embrace the added value that an impartial professional judgement/recommendation brings to the settlement of disputes, which is not only cheaper and more expeditious, but also transfers decision-making to external agents, thereby assisting with state audit compliance. The market is further increasingly utilizing design and build contracting models and has even experimented with the New Engineering Contract (NEC) suite. Public-private partnerships are also growing in popularity as inward investment is coveted to mitigate budget deficits generated by low oil prices. This shift in strategic procurement can only be beneficial to the continued growth of construction in the Middle East and maintain its attractiveness to international contractors and consultants.

While the region is experiencing a challenging period, the opportunities and potential rewards for contractors and consultants remain. As better compliance and cost optimization initiatives are introduced by private operators and governmental entities, the market will improve as an environment within which both domestic and international organizations can thrive.



Our regional commentary gives some insight into the common causes and features of disputes in the Middle East. We consider that these themes provide a helpful reference point to typical trends both regionally and globally. It is evident that the natural resources market is now operating against a very different economic backdrop. The business case assumptions that were likely used to endorse projects and programs have therefore changed, presenting a huge challenge to the project and entity risk profiles. The disputes in this sector have been a material feature in the last 12 months and will continue to be evident in the coming year.

We have established that globally the following key dispute themes have prevailed:

- The average value has marginally reduced to US\$46m.
- The average length has increased to 15.5 months.
- The most common cause is still the failure to properly administer the contract.

A continuing trend over the last six years is that, on average, disputes have increased in value and duration, with the notable increase this year in the length of time taken to resolve disputes. Therefore our theme this year of "Don't get left behind" is focused around making sure that in recognizing what causes disputes, avoidance mechanisms can be actively deployed to

resolve issues as they materialize. Furthermore, if a claim then does progress into a formalized dispute, actively deploying key support and expertise, effective strategies and the active use of Alternative Dispute Resolution (ADR) will assist in reducing the time it takes to resolve the dispute.

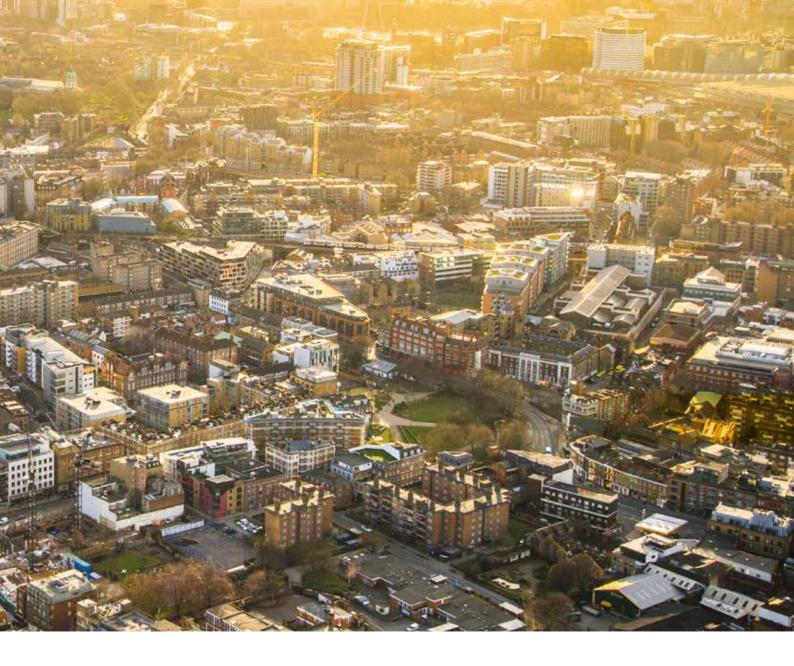
Considering why the length of disputes has increased is likely to be a mix of the following factors:

- An increase in the size of disputes that Arcadis has been instructed to act;
- an increase in the number of large and complex EPC disputes;
- the disputes that are formalized are including multiple or whole contract issues, rather than referring discrete claims; and

 adjudication or some forms of ADR in some regions is not providing a solution that is acceptable to the parties.

Some interesting features of the regional overviews have highlighted the following trends in some or all of the markets:

- The effect of the global commodity and currency volatility;
- the earlier deployment of dispute avoidance mechanisms;
- the increasing use of mediation, and refinement of other forms of ADR; and
- a reliance from public or quasipublic bodies to require third party decisions, to assist in retaining complete 'arm's length' decision making.



This year, consistent with last year, we have noted the following additional features, which include:

- Mega disputes, with the largest dispute we have been engaged in this year exceeding US\$2.5bn; and
- a notable increase in the volume of arbitrations.

The majority of construction disputes are resolved privately and so we tend to have very few reported cases, however in 2016 there were amongst others two cases which merit a mention. The first is Cavendish Square Holdings BV –v- El Makdessi and Parking Eye Ltd –v- Beavis [2015] UKSC67, in which the notion of a liability for delay damages might be challenged if the rate of damages is not a genuine pre-estimate of

the actual loss. The Court made it clear that delay damages will only be considered to be penal, and so unenforceable, if the damages are extravagant to the point of being unconscionable.

The second case is worthy of note on two fronts, because it provides a very helpful reminder and checklist of what is required of an Expert Witness, and also because the other expert in this case who was used as a reference point of what should have been undertaken was Gary Kitt (UK Leader of Arcadis Contract Solutions). The case was Van Oord UK Limited & Sicim Roadbridge Limited -v- Allseas UK Limited [2015] EWHC 3074 (TCC), in which the Court clearly set out 12 rules of what is required of an expert, and it is suggested that the full judgement should be read and

considered in the context of the widely referenced 'Ikarian Reefer' case and guidelines.

Thank you and we hope that you have enjoyed this year's edition.









