



*Evaluating different
approaches to
maintenance and
operations procurement*

New Zealand Transport Agency

FINAL

*Investigating changes in
procurement over time,
economic implications of
these changes, and
options for new
approaches.*

February 2012



Mark Kinvig and Lynley Hutton
New Zealand Transport Agency
Via e-mail
NAPIER and WELLINGTON

29 February 2012

Dear Mark and Lynley

Evaluating different approaches to maintenance and operations procurement

We are pleased to attach our Final report evaluating different approaches to maintenance and operations procurement. There appears to be a case for some further bundling and aggregation, as long as this is at a level that maintains competition and prevents hollowing out of the market.

Please do not hesitate to contact us with any questions you may have.

Yours sincerely

A handwritten signature in black ink, appearing to be 'GD'.

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Executive summary

The purpose of this project is to better understand the implications of a range of potential contracting approaches towards maintenance, renewal and operations (MR&O) for local roads and the state highway network.

We focus on three dimensions:

- MR&O (and not on new roading);
- Highway and local road spending; and
- Physical works and professional services.

We look at the advantages and disadvantages of different **approaches** to procurement (the status quo, greater aggregation and bundling, and the opposite), rather than the (in)efficiencies that may be associated with **running** a procurement process. These (in)efficiencies are likely the result of award decisions, or how the evaluation criteria were weighted, rather than the approach to procurement.

Principles for a healthy MR&O procurement market

A healthy MR&O procurement market should:

- Improve fiscal efficiency through reducing administrative, evaluation and transaction costs for Road Controlling Authorities (RCAs);
- Improve economic efficiency through encouraging competition and innovation, and ensuring value for money for government;
- Sustain contractor profitability (in the industry-wide sense) by creating certainty for the contractor and accepting a fair price;
- Be publicly and politically acceptable; and
- Be predictable and transparent, with clear evaluation criteria and weightings giving certainty of outcome to tenderers.

Today's MR&O market

Over the last ten years, the average size of physical works contracts at the highways and local roads level has grown at a rate significantly faster than can be explained by price inflation. In other words, average contract size has grown strongly in real terms. These changes appear to have benefitted the mid-tier firms most of all, with their share of the market growing.

In professional services, contract size has grown more sedately, and industry players outside the top 10 have been making inroads into the market, accounting for around 30% of contract value in 2010, up from less than 10% in 2006, and up from around 22% over the decade.

Over the last few years, there has been an average of approximately 220 active highways physical works contracts, 100 active highways professional services contracts, and 450 active local roading physical works contracts in any given year.

MR&O is more important for large businesses in the physical works space than in professional services. Around 20% to 30% of revenues at the largest MR&O physical works contractors are from



MR&O projects, compared with around 10% for professional services. This means a change in procurement approach may affect physical works players more than professional services firms.

The status quo

The status quo satisfies most principles for a healthy MR&O procurement market. There is competition (shown by changes in market share and number of tenderers), the process is publicly acceptable, and it sustains a number of contractors.

Transparency and predictability of process receive mixed feedback from stakeholders. Clear, measurable evaluation criteria and weightings are critical to ensuring that even an incumbent must submit the best value tender, and does not rely on an existing relationship for success, although a more general track record should be a major determiner of who wins large contracts.

Bundling and aggregation

There are administrative fiscal efficiency advantages to this approach. However, there are limits on how far one can go without reducing competition and “hollowing out” the structure of the industry through a small number of major players and then a large number of small sub-contractors. In other words, due consideration would need to be given to the scale of aggregation and bundling, maintaining a desirable mix of contract lengths, and the number of capable tenderers.

Disaggregation and localisation

This option would have inverse effects to bundling and aggregation. Competition would be increased at the expense of administrative financial efficiency. Returns to contractors may be reduced as they spend more time on tendering, but a wider range of contractors would have a legitimate chance of winning a particular contract directly. With reduced capital intensity, the market is likely lose economies of scale advantages.

Links between collaboration and aggregation/bundling

An issue beyond the scope of this work, but with direct relevance, is the possibility of greater collaboration between RCAs. Collaboration is neutral on the aggregation/bundling question, as it is possible without a change in the number of contracts issued. However, it offers demonstrable cost savings through providing access to a greater pool of skills, experience, and best practice processes, and may be a first step to some reduction in the number of contracts.

Where to from here?

Given the more homogenous nature of needs of the the highways network, one possibility may be to reduce the number of highways contracts sharply, to under 50 (and perhaps as low as 15 - 20), as long as at least 150 - 200 contracts are maintained at the local roading RCA level, to allow a mix of contracts.

Questions that warrant further examination include:

- How might a model to share purchasing functions across RCAs work in practical terms?
- How might NZTA and Councils work together to bundle or aggregate contracts at a local level, such as in Wellington or Auckland?
- Is the option of aggregation across smaller local Councils feasible?



Introduction

Purpose of the project

The purpose of this project is to better understand the implications of a range of potential contracting approaches towards maintenance, renewal and operations (MR&O) for local roads and the state highway network. The report considers the short- and long-run impacts across the market for MR&O services dependent on the contracting approach taken. Specifically, we:

- Introduce a number of principles for a healthy MR&O procurement market;
- Discuss trends in roading construction in New Zealand including:
 - Employment and business units growth;
 - Investment;
 - The role of MR&O in New Zealand roading construction;
 - The importance of MR&O to major players in the sector;
- Evaluate the current MR&O procurement approach in terms of the principles set out; and
- Consider the outcomes of alternative MR&O across the range of design principles.

The question of collaboration (which is a separate question from that of aggregation or bundling) was beyond the scope of this work but nevertheless offers the opportunity for significant gains in efficiency for both RCAs and contractors. We discuss this possibility in a separate section.

The scope of the project and data sources

This report focuses on the following three dimensions:

- MR&O rather than new roading;
- Highway and local road spending; and
- Physical works and professional services.

The focus is on MR&O contracted by the New Zealand Transport Agency (NZTA – highways) and Councils (local roading). It does not include the construction of new roads. Growth in MR&O spending is based on the increase in construction costs, and in the roading network over time.

All data for the investigation of the current trends in MR&O contracting was supplied by NZTA. NZTA sourced local roading data from each Council and thus was reliant on Councils for complete information. The data covers physical works for highways and local roading, but only professional services for highways, as Councils do not supply this data to NZTA.

What is outside scope: Running the procurement process

It is sometimes a challenge to differentiate between advantages and disadvantages of an **approach** to procurement and the efficiencies and inefficiencies in **running** a procurement process. Discussions with stakeholders raised examples of aggregated or disaggregated projects being more or less efficiently run than others. These (in)efficiencies are likely the result of decisions on which contractor



is awarded the contract, or how the evaluation criteria were weighted, rather than the approach to procurement (bundling, aggregation or other) per se.

The running of a procurement process is not explicitly within the scope of this project but given its links to predictability of process, we do touch on it.



Principles for a healthy MR&O procurement market

The increasing use of sustainable procurement investment processes around the world takes a holistic approach to developing and maintaining a healthy procurement market. This has included the rise of so-called “triple bottom line” views on procurement, considering social and environmental factors as well as the traditional economic (or even more narrowly, price and quality) cost of procurement.

There is still strong debate over the extent to which wider social and environmental concerns should be considered in procurement decisions. We have been relatively conservative in limiting the principles used in this discussion of a healthy MR&O procurement market.

It is also worth noting that ***some of these principles may be in conflict*** with each other. For example, there is potential for a procurement approach that maximises economic efficiency to meet with significant public and political resistance. In addition, there may be ways in which ***aspects of a particular principle are better met by one procurement approach than another and vice versa.***

Finally, we make no attempt to weight the importance of each of the design principles introduced here. Whether, for instance, political and public acceptability is weighted equally, higher or lower than fiscal efficiency is a decision to be taken at a government level.

Return to RCAs: Fiscal efficiency

A healthy MR&O procurement market should maximise the benefit to Government.

A procurement approach should take cognisance of the need to ***minimise administrative, evaluation and transaction costs*** for RCAs. This may be through the use of a simple contracting process, or awarding larger bulk contracts.

As pointed out in the section entitled *What is outside scope: Running the procurement process* (p.3), this report does not focus on the running of a procurement process, but rather on the approach toward procurement (bundling, aggregation or otherwise). There is a ***separate question*** of whether the procurement process is run by sufficiently informed independent decision-makers, using an appropriately weighted, quantitative process that considers the capability, financial sustainability and whole of life costs of the tender. This question holds other implications for fiscal efficiency, but is not an aggregation/disaggregation issue, but rather a ***process*** of procurement issue. It is not the focus of this report.

Return to New Zealand: Economic efficiency

A healthy MR&O procurement market should award contracts in a way that maximises the national economic benefit of that procurement.

The purpose of a roading network is to transport goods, services and people around the country as efficiently as possible. A decision on how to procure MR&O services must take account of the effects of the procurement decision on the economic efficiency of the roading network.



When government procures goods and services, the link between fiscal efficiency (discussed above) and economic efficiency is implicit. Government uses tax dollars to procure goods and services, so minimising the costs associated with procurement definitionally means reducing the costs to the economy. However, wider economic benefits (such as improved safety), also need to be considered as a wider benefit or cost of a procurement approach.

This means that on the one hand, using small players may **pose a risk to economic efficiency** if they lack the experience, quality control measures, or cash reserves to correct faulty work that larger contractors may have. Furthermore, given their scale, larger players may have better **access to newer technology** that improves the quality and efficiency of the work.

On the other hand, awarding bundled contracts to larger players may **reduce competition** by creating **barriers to entry**, either through the costs associated with tendering for multi-million dollar contracts, where larger firms can spend a lot more money, or simply because smaller contractors cannot realistically complete projects of that scale. On smaller scale projects or simpler tasks, smaller contractors may have sufficient **cost advantages** (through lower overheads for instance), to make them a more efficient choice.

Return to the contractor: Private sustainability

A healthy MR&O procurement market should support sustainable roading construction businesses.

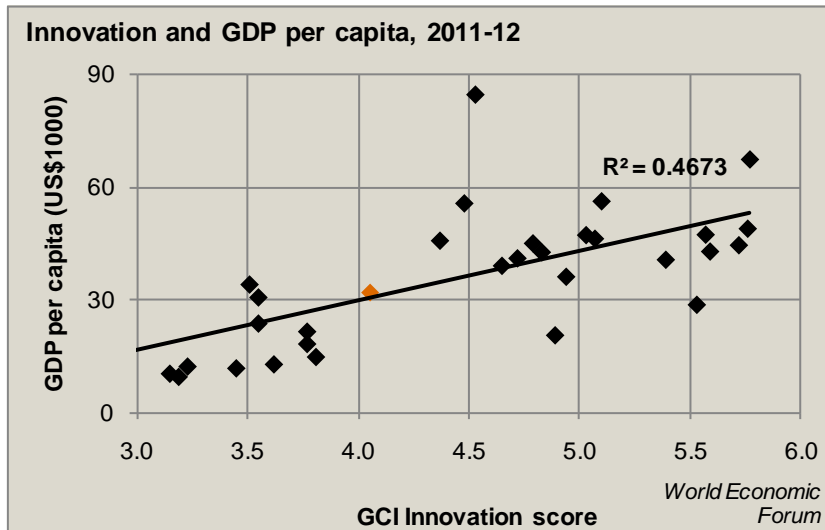
To ensure competition, which spurs economic efficiency, the procurement approach should, to as great an extent as possible, **minimise costs and uncertainty** for contractors. It is important to note that this principle does not necessarily suggest that the current number of directly contracting firms should be expanded or reduced. It simply means that the procurement market should be such that **a number of players have a legitimate chance of being awarded any given contract.**

Factors to be considered here include the following:

- **Tendering costs:** Request for Tender processes should be sufficiently streamlined to minimise costs to tenderers.
- **Contract lengths:** On one hand, these should be of a length to provide some assurance of future income (giving contractors the confidence to invest in people and capital). On the other hand, if these are too long, they pose a business continuity threat, particularly to locally-owned and operated businesses that mostly undertake local roading projects.
- **Maintaining skills:** Directly linked to the discussion of contract lengths, contractors need certainty to invest in developing and maintaining skilled people. This means striking a balance between giving the selected contractor a contract of sufficient length to invest in skills, and reassuring the contractor who misses out on a contract that it will not be too long before they have another opportunity to bid for work.
- **Investing in innovation:** In negotiating a price with a preferred contractor, seeking the lowest price at all costs is counter-productive if it prevents the contractor from investing in new capital and technology that may drive efficiency gains down the track. PwC analysis of World Economic Forum data shows a powerful relationship between innovation and economic growth, as highlighted in Figure 1.

The figure shows the GDP per capita of OECD countries relative to their investment in innovation.

Figure 1 Investment in innovation drives private success and economic growth



In other words, it is in the national interest to support opportunities for contractors to innovate in their provision of MR&O services.

- **A fair go at winning contracts:** Strongly linked to predictability of process, individual contractors must have the confidence that they have a legitimate chance of winning a contract if they can provide evidence of their capability.

Public and political acceptability

A healthy MR&O procurement market should award contracts in a way that is publicly and politically acceptable.

In terms of the “triple bottom line” approach to procurement, this principle sits within the social considerations. It is less easily measured than the other principles given its subjective nature.

In the case of MR&O procurement, there may, for instance, be public resistance to an approach that awards contracts to large firms at the exclusion of smaller firms. Similarly, if the predictability of process principle (discussed below) is perceived to be ignored, there may be public or political opposition.

This principle can clearly be in conflict with the principles of fiscal, economic and private returns, but is the reality of the landscape in which government operates.

Predictability of process: Transparency

A healthy MR&O procurement market should provide equal treatment to all qualified tenderers, and there should be visibility in the decision-making process that leaves no party in any doubt as to the legitimacy and repeatability of the process.

The MR&O procurement approach should be predictable so that, given all the information required, it should be relatively easy to predict the outcome of the process, such that if repeated, the outcome



would be the same. This creates certainty for tendering contractors and a sense of accountability to the public (see also public and political acceptability above).

While it is beyond the scope of this work to detail how the process of procurement should be run, it is clear that the weightings applied should take appropriate account of track record and financial sustainability of a tenderer on the one hand, and price on the other. These two factors will ensure a viable, capable tenderer is chosen and that value for money through competition is achieved, respectively. The relative weights of capability and price could vary by the complexity, size or risk of a project. For instance, a small, simple project could be weighted more toward price while a larger complex project could have less emphasis on price and more emphasis on whether the tenderer has the experience and financial stability to ensure the job is completed on time to specifications.

The Request for Tenders should clearly set out the evaluation criteria and weightings, and how points will be scored according to those criteria and weightings. It should further be outcomes-based, rather than inputs-oriented. In other words, the contract is to deliver a particular renewal outcome, for instance, to a certain set of specifications. As long as the tender submitted will achieve the desired outcome, it is a valid tender. This allows for innovation, which again feeds back into economic efficiency.

A standard contracting approach using these concepts of clearly weighted and measurable criteria, and that is outcomes-based, could be implemented at a local and national level, helping create transparency.

A predictable contract award approach will also streamline the process by ensuring those who are very unlikely to be awarded a contract do not apply, thus reducing the administrative cost to RCAs (increasing fiscal efficiency).

Trends in roading construction activity

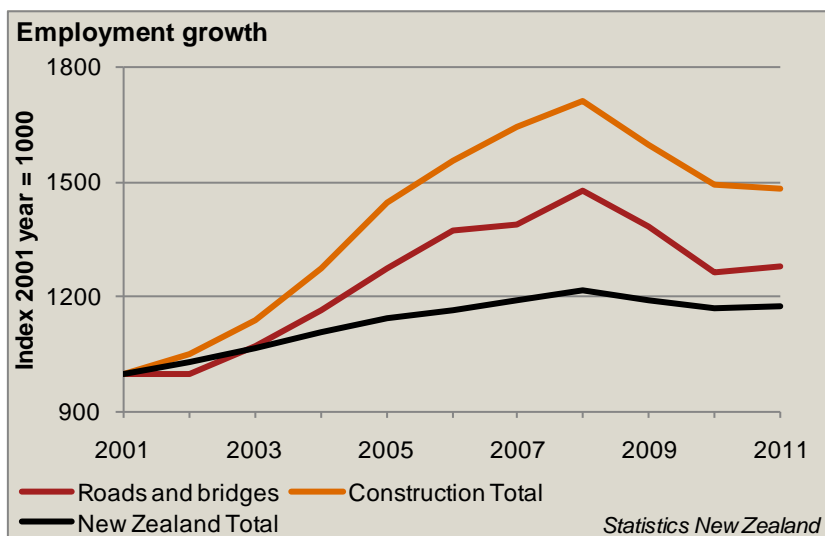
Over the last 10 years, the number of roading construction businesses is shrinking, but the average number of workers per roading construction business is growing as businesses consolidate.

With huge demand for construction workers in the pipeline through the Christchurch rebuild, leaky buildings remediation, general earthquake strengthening, and pent-up demand for new housing, it is likely to be hard to find enough construction workers to complete work to a high standard at prices we have seen over the last few years.

Roading construction across the business cycle

Figure 2 presents the changes in employment in roading, all construction, and the New Zealand economy over the 10 years to March 2011.

Figure 2 Employment growth in roading construction has been moderate

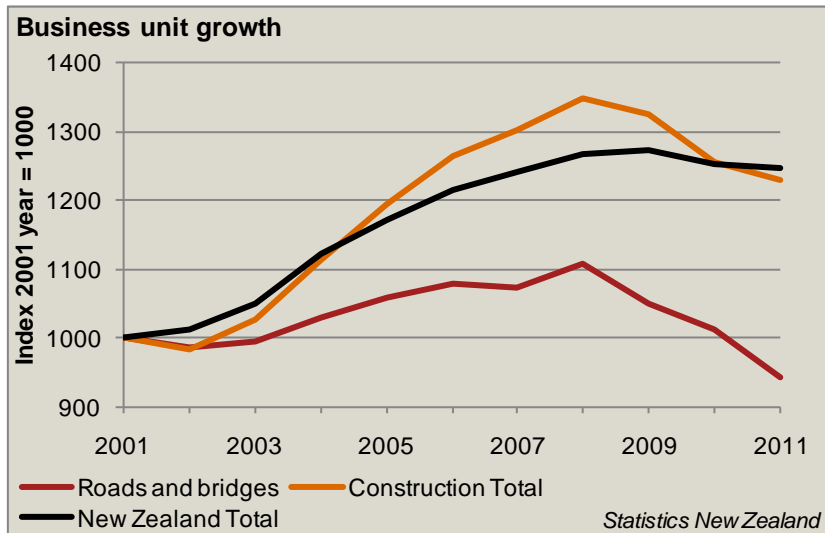


Over the years of strong economic growth out to 2007, employment in roading construction grew almost 50%. While this rate of growth was impressive, it was well below that seen by the broader construction sector, led by particularly strong residential construction employment growth. Out to 2008, overall construction employment grew by 71%, or 8% a year. Meanwhile, employment in New Zealand overall grew a lot slower, at 2.9% a year, with gains in construction and business services offset by challenges in the manufacturing industry and consolidation in agriculture.

Since the downturn that began in late 2007, employment nationally has declined slightly, while the impacts on the construction sector more broadly have been sharper. Roading construction employment has fallen 13.5%, despite strong increases in government spending on non-building construction (mostly roads).

Figure 3 shows the change in number of roading construction businesses relative to all construction businesses and New Zealand business numbers.

Figure 3 The number of roading construction businesses is falling

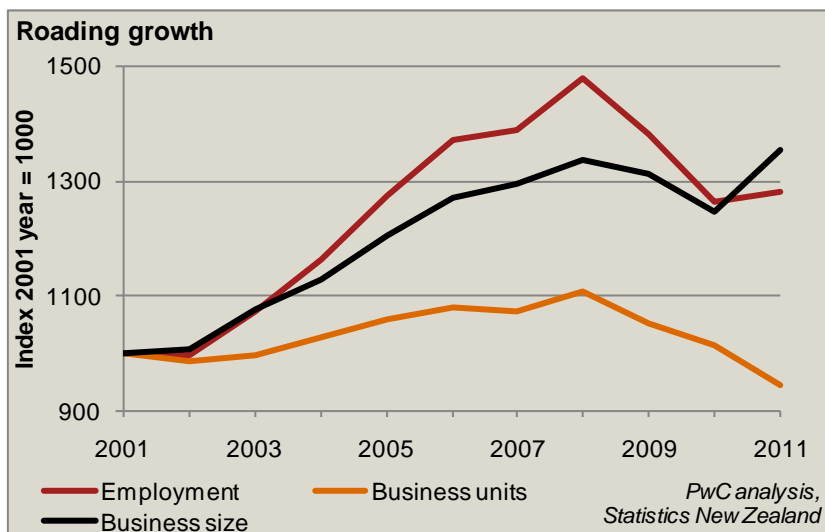


While all three levels of analysis showed growth over the six years to 2007, growth in the number of roading businesses was subdued relative to construction overall and overall growth in the number of New Zealand businesses.

Part of this change can be explained by the proliferation of small business services and construction services businesses (such as carpenters, plumbers, and electricians) during the boom years. In roading construction, the level of capital investment required, and the lower level of mobility in terms of where the business could be conducted may have discouraged growth in small businesses.

There has been dramatic consolidation in the number of roading businesses, down 14.7% since the peak of 2008, an even sharper decline than in employment. The result is the fall in business size shown in Figure 4.

Figure 4 Roding businesses are getting bigger

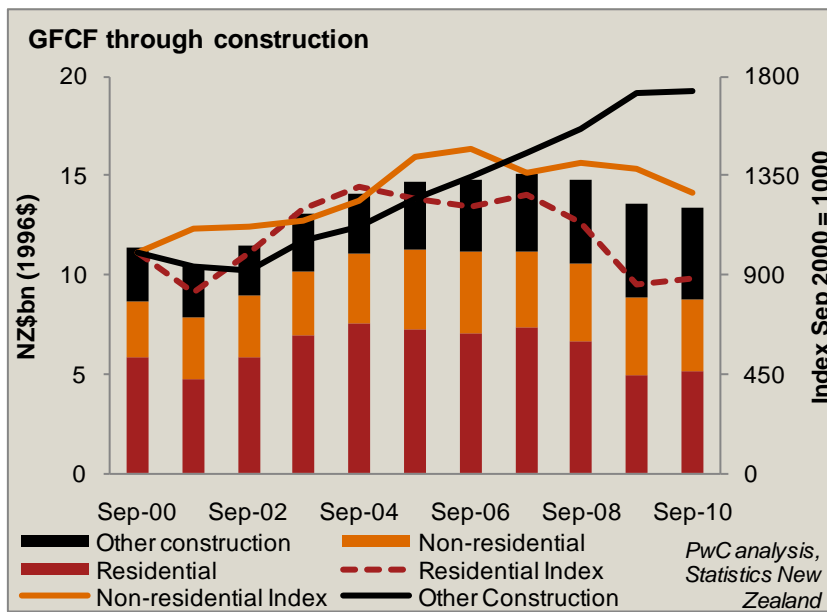


The decline in business units since 2008, and in particular in the year to March 2011, a time during which employment in roading stabilised, has helped average business size surge 36% since 2001. In

other words, while there are fewer businesses, the number of people working in the sector is up, meaning overall, they are bigger businesses.

Figure 5 shows the growth in employment in “Other construction” (non-building construction, part of which is roads) relative to other sub-sectors over the last 10 years.

Figure 5 Investment in non-building construction is strong



Spending on “Other construction” has increased rapidly and steadily since 2002. By September 2002, spending in this sub-sector of the construction sector had grown nearly 80% in 10 years. In contrast, spending in other sub-sectors has seen far more fluctuation.

The data does not, unfortunately, differentiate between spending on new roading compared with MR&O, or even disaggregate roading from other non-building construction, making it hard to infer too much from the data, but there is certainly an indication that spending within the broad roading construction sub-sector is benefitting from the rise in “Other construction”, much of which is government-led.

Roading construction growth by region

While the scope of this work does not allow for a thorough analysis of regional trends in roading construction, a brief headline analysis is valuable in understanding trends in employment and average business size across New Zealand’s 16 regions and unitary authorities.

Figure 6 shows the change in roading construction employment by region over the decade to 2011.

Figure 6 Most regions have enjoyed strong growth in roading employment

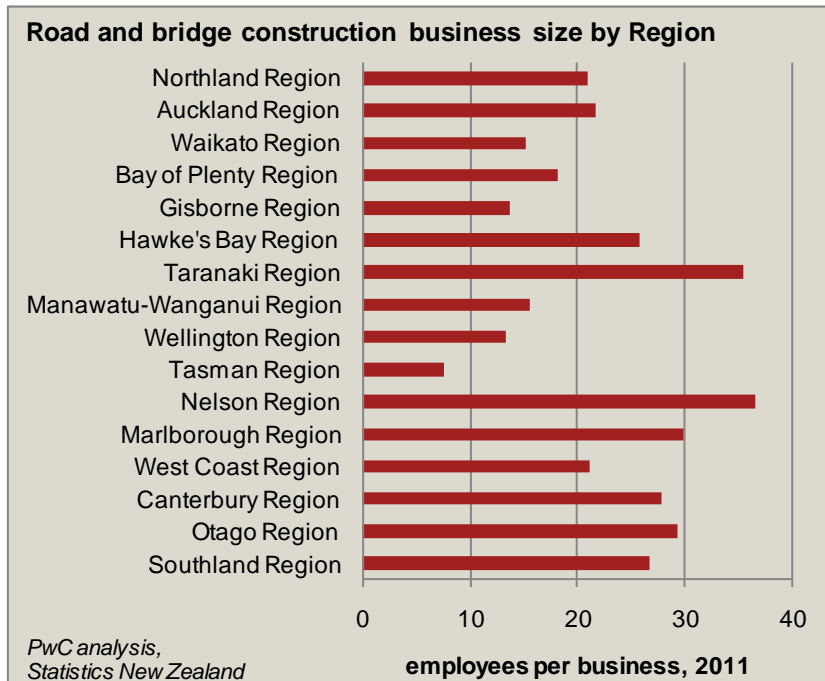


Only Wellington and Manawatu-Wanganui have experienced a decline in employment. South Island regions have dominated employment growth (albeit many off small bases), with Marlborough, Canterbury, West Coast and Nelson all increasing roading construction employment by more than 60% in 10 years.

Figure 7 presents the average number of employees per roading construction business across 16 regions.¹

¹ In this instance, “business” could be understood instead as “office”. In other words, each local office of a national business, such as Fulton Hogan, is counted as a separate business or office. The Fulton Hogan Wellington office is thus included in the Wellington figures, while the Christchurch office is counted in Canterbury and so on.

Figure 7 There is substantial variation in business size across regions



The Tasman region has the lowest average business size (workers per business or local office of the firm), but this may be skewed by its effectively being part of a broader Nelson-Tasman market, with Nelson as base for offices of most of the larger firms. Firms in Wellington tend to be a lot smaller than in the Hawkes Bay and most South Island regions. This may suggest that in some regions, larger firms are more successful or there is reason for consolidation, while in others, smaller firms are more sustainable.

Of some interest is the average business size in Auckland. One could expect it to be higher given the number of businesses that have their (large) national headquarters there. Nevertheless, there appears to be sufficient work for smaller businesses to survive and bring the average business size down.

Impacts of the Canterbury earthquakes

It is important to bear in mind that the numbers in Figure 6 were compiled just before the February 2011 Canterbury earthquake. The resultant devastation in that region is already driving demand for roading construction, and may well be diverting employment away from other regions in New Zealand. When data for 2012 becomes available, it is likely a shift in employment toward Canterbury will be evident.

Finding workers to staff the rebuild in Christchurch as well as new roads and MR&O in other parts of New Zealand may be a challenge, as highlighted in Figure 8.

Figure 8 New Zealand is losing large numbers of construction workers



In the 12 months to September 2012, there has been a net inward migration of almost 200 designers, planners and engineering professionals, much of which may be linked to the Christchurch rebuild, which is in the design stage.

However, at the other end of the construction spectrum, there have been net outward migrations of construction labourers, managers, and trades people. One possible interpretation of these results is that with the economic downturn causing a reduction in employment within construction, many smaller (owner-operator or under 5 employee firms) have folded and staff have made their way overseas, while the average size of remaining firms has thus increased.

Implications for roading construction

With huge demand for construction workers in the pipeline through the Christchurch rebuild, leaky buildings remediation, general earthquake strengthening, and pent-up demand for new housing likely to return as the economy recovers, the construction sector stands on the verge of a major boom. The implication is that while mobility between roading construction and other forms of construction may be limited, there may be challenges in finding sufficient labour at prices we have seen over the last few years.

Further, smaller firms or start-ups are likely to battle to attract workers and to pay them the salaries larger firms can afford. The approach taken to awarding contracts in Canterbury may play a crucial role in whether, without a specific intervention to guide the market in a certain direction, there is more consolidation in business size over the next five to ten years.

The role of MR&O procurement

MR&O accounts for approximately half of all spending on roading at the highway and local level in New Zealand.

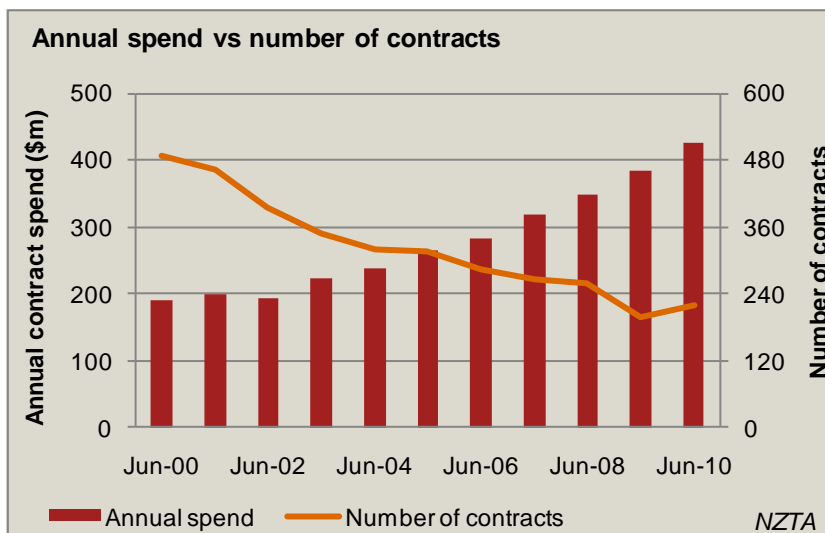
Highways

The highways market has two components: physical works and professional services. The markets for these two components have behaved differently in the last 10 years. While annual spend has increased for both types of services, the number of contracts has decreased more significantly in the physical works market than for the professional services. Furthermore, the levels of market concentration and competition appear to be different. While for physical works the biggest companies have significantly gained market share over the period, in the professional services market, the biggest companies have lost some market share.

Physical works

Over the last 10 years, annual expenditure in physical works on highways has increased consistently, mainly as a consequence of consistent growth in the number and length of highways constructed, and the cost of that construction. In contrast, the number of contracts on which spending was generated in each year has decreased over the same period, as shown in Figure 9.

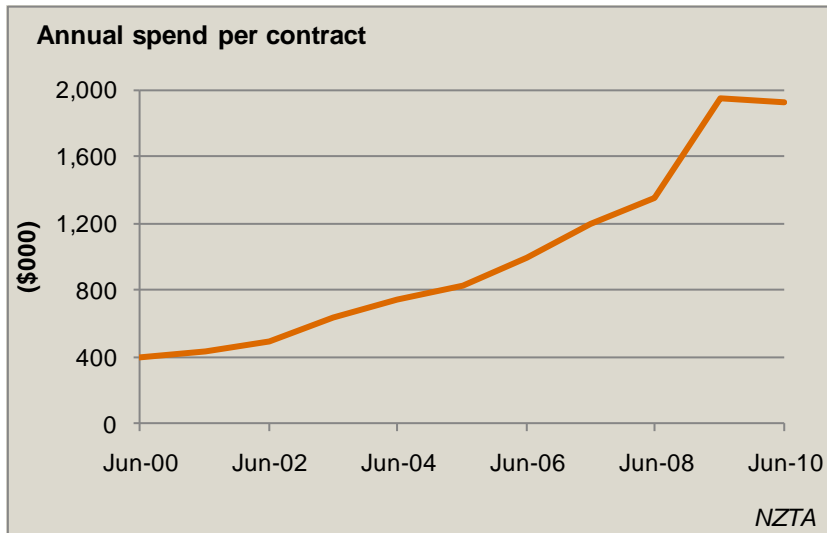
Figure 9 Annual spend consistently increased while number of contracts decreased



Annual contract spend grew 120%, from \$190m for the year 2000 to over \$420m for the year 2010. On the contrary, the total number of contracts decreased from approximately 500 in 2000 to 200 in 2010.

The consistent decrease in the number of contracts shows a clear trend towards aggregation and bundling of contracts, as highlighted in Figure 10.

Figure 10 Annual spend per contract increased significantly

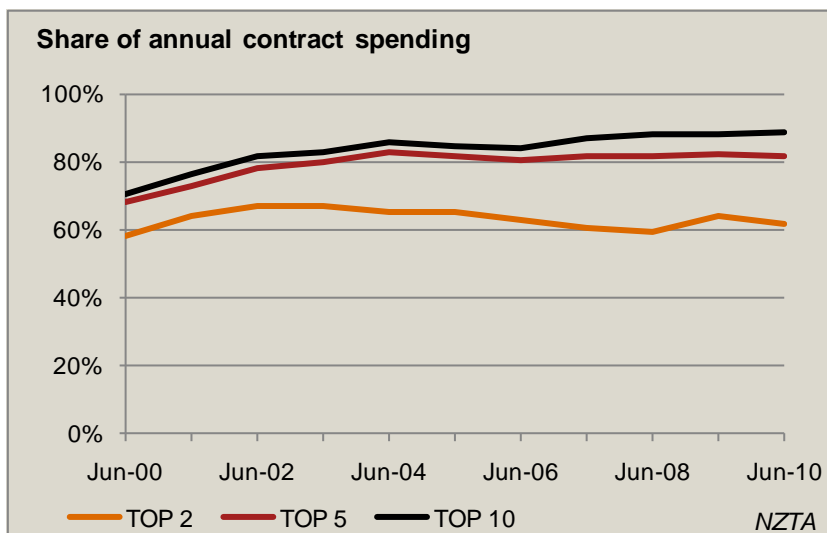


As a result, the average annual spend per contract increased approximately 400% from \$400,000 per contract in 2000 to an average of almost \$2 million.

As the average size of the contracts increases, this may indirectly mean that more contracts are awarded to bigger companies than smaller firms.

As shown below in Figure 11, the two biggest companies have consistently represented over 60% of the market and have not grown their share in recent years, while the companies that form the remainder of the top five and top 10 have grown their share more notably.

Figure 11 Market share of big companies has increased smoothly



Over the past ten years, Downer EDI Ltd and Fulton Hogan Ltd have consistently been the two biggest companies in physical works for the highways market. Together, they have been awarded approximately 60% of the total spend annually. Nevertheless, their share of the market has not increased significantly.

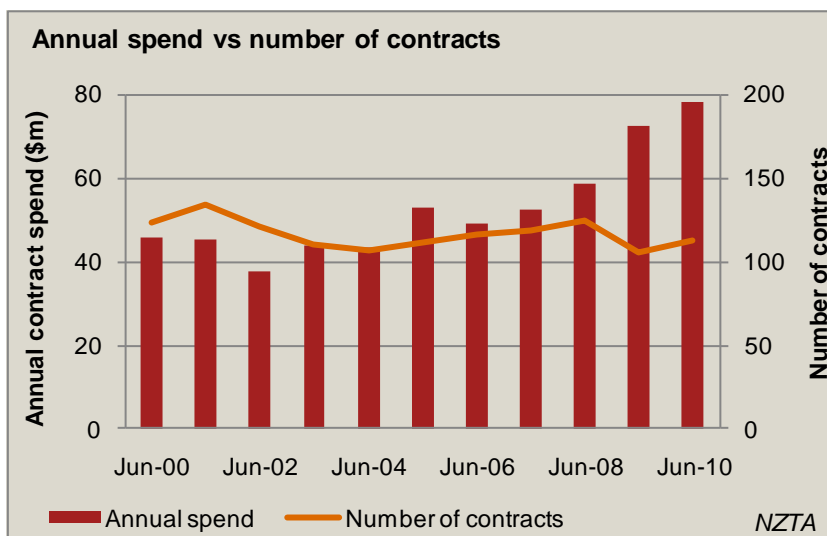


On the other hand, the group that forms the top five companies has grown its share from 68% in 2000 to consistently over 80% since 2004, meaning that the three smaller companies in the top five have been the winners for the period, having grown their share more significantly than any other group of companies in the top 10. The business units that form the second tier in the state highways market are led by Transfield Services Ltd, and Higgins Contractors Ltd.

Professional services

As with physical works spend, professional services spend for the highways market has increased consistently over the last 10 years. However, the annual number of contracts awarded has remained reasonably stable.

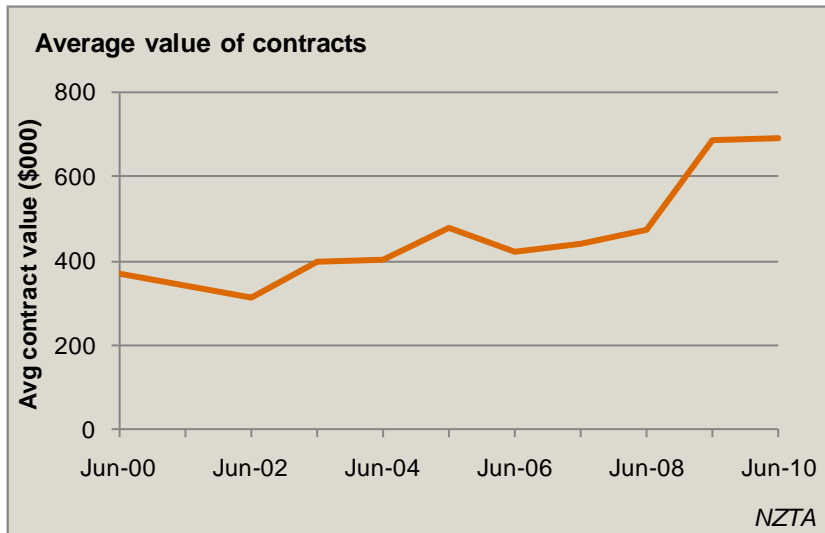
Figure 12 Spend increased while number of contracts stayed constant



As Figure 11 shows, annual spend has grown approximately 80% over the 10 year period, from \$45m in 2000 to almost \$80m in 2010. Most of this growth is attributable to the last three years, with annual spend increasing from \$52m in 2007 to \$78m in 2010.

On the other hand, the number of contracts on which spending was generated has stayed almost constant over the period, with 123 contracts in 2000 and 113 in 2010, meaning that the trend towards contract bundling has not been as strong in professional services as in physical works, as indicated in Figure 13.

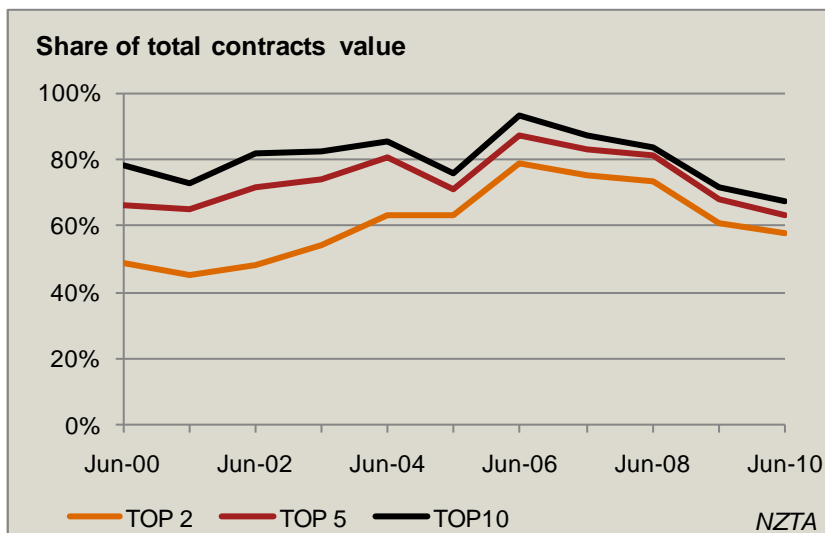
Figure 13 Size of contract increased steadily



As a result mainly of increasing total annual spend in professional services, the average value of contracts has risen from almost \$400,000 in 2000 to approximately \$700,000 in 2010. These values are nominal, meaning in real terms growth was relatively modest.

While the average size of contract has increased, this has not increased the market share of the top 10 companies. On the contrary, the market share of the biggest companies has decreased significantly on the last four years.

Figure 14 Smaller firms have recently increased their market share



As Figure 14 shows, the top two companies in the market, Opus International Ltd and MWH New Zealand Ltd, had a period of market share growth from 50% in 2000 to almost 80% in 2006. Since 2006, these companies have lost a significant share of the market, representing under 60% of the 2010 total.

Other companies in the top five and top 10 have experienced a similar trend. The top five and top 10 overall grew their market share from 63% and 78% respectively in 2000 to 87% and 93% in 2006 and



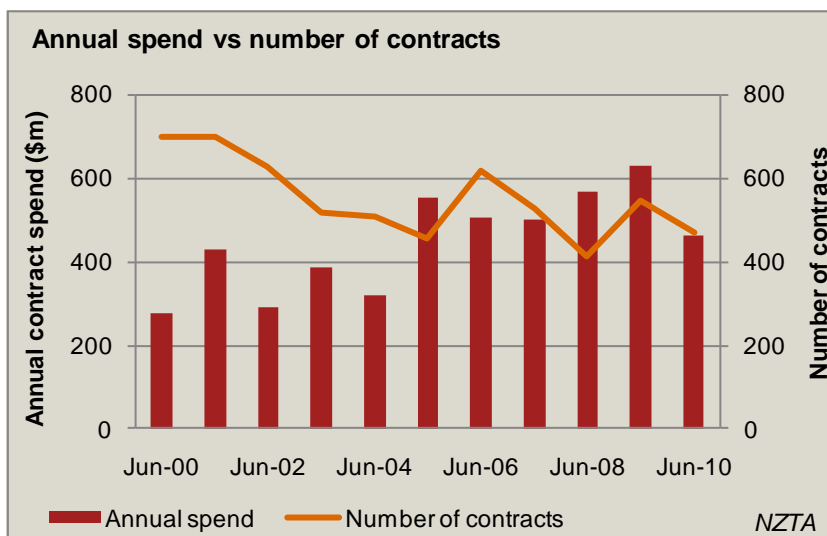
63% and 67% in 2010. Companies in the second tier are Beca, Bloxam Burnett & Olliver Ltd and GDH Limited, amongst others.

Given that the average contract size has increased, but the market share of the top 10 companies has shrunk in recent years, this points to a group of middle-sized professional services companies that have attracted a larger proportion of the market.

Local roading: physical works

Annual local roads contract spend has increased with a few exceptions over the last 10 years, mainly as a result of population growth and expansion of the transport network. However, the number of contracts has decreased over the same period.

Figure 15 Spend increased as number of contracts decreased

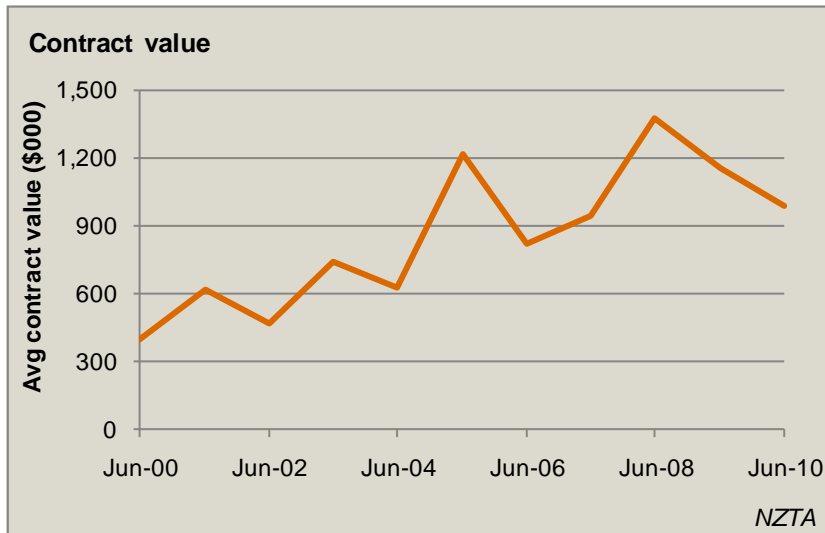


Annual contract spend² for local roads has increased significantly ranging from approximately \$300 million to \$400 million between 2000 and 2004, to \$500 million to \$600 million for the last four years.

On the other hand, the total number of contracts that generated spending annually has decreased consistently, from 700 in 2000 to 470 in 2010. This trend in contract size growth is consistent with the highways physical works market.

² For some periods, local roads spend data provided by NZTA was incomplete. For years where it was possible to identify the missing data (e.g. Auckland City Council not submitting data for 2007 and 2008), we've estimated the missing expenditure based on preceding and succeeding years' averages.

Figure 16 Average size of contract increased over the period

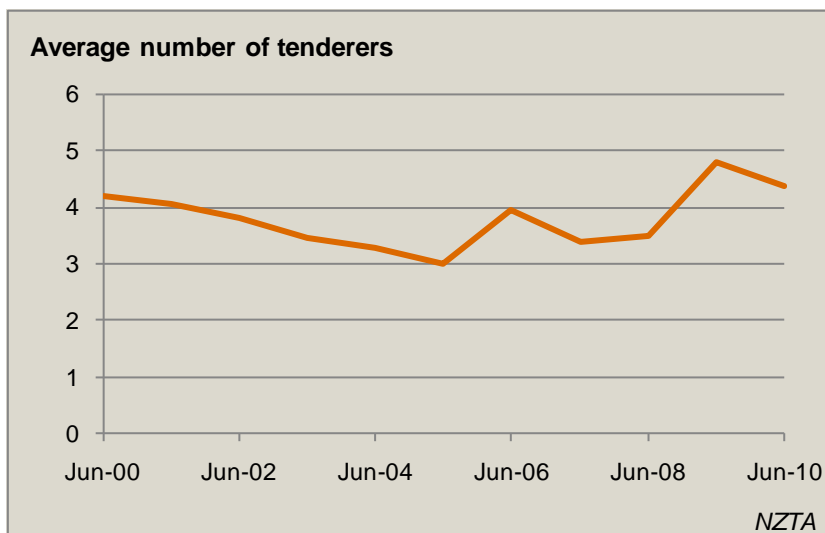


Overall, the average contract size has increased significantly from under \$400,000 per contract in 2000 to approximately \$1m per contract in 2010.

As mentioned in the highways physical works discussion, an increase in the average contract size could lead to a reduction in the number of contracts that small sized companies can tender for, in that they may not have the resources or capability to manage larger scale projects.

However, as Figure 17 shows, the average number of tenderers per contract has not changed substantially despite the increase in the average size of contracts.

Figure 17 Number of tenderers per contract has stayed constant



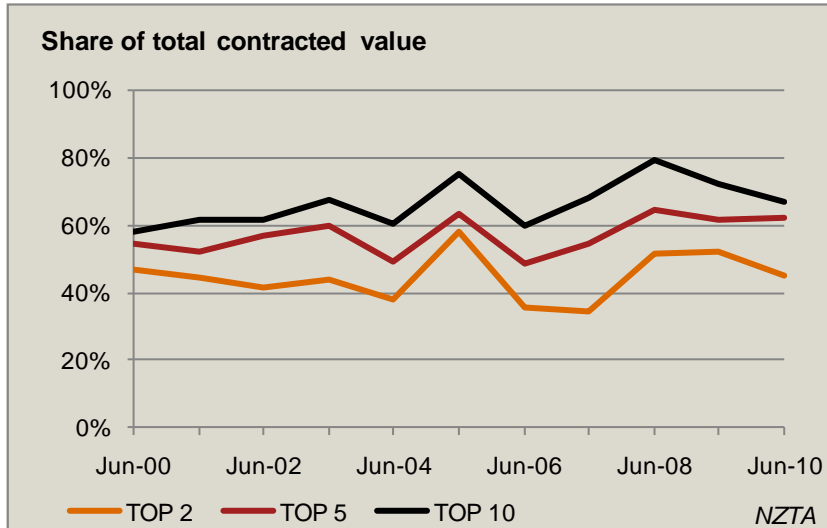
The average number of tenderers fell slightly between 2000 and 2005, from 4.2 tenderers per contract to 3. However, it has been increasing since 2005, reaching 4.4 tenderers per contract in 2010.

This means that although the average size of contracts has increased, the competition for those contracts has not necessarily changed, with a similar number of companies tendering for the same contract.



Trends in market concentration in local roading have been mixed, as presented in Figure 18.

Figure 18 Market share has fluctuated over the last 10 years.



The market share for biggest companies has fluctuated over the period of study. Overall, the two largest companies have conserved their share at approximately 45%, while other firms in the top five and top 10 companies have increased their share slightly.

This means that, although the top two companies have not grown their share, the remaining companies that form the top five and top 10 have gained slightly more market share over the period.

As is the case for state highways, Downer EDI Ltd and Fulton Hogan Ltd have the largest proportion of the market. Other companies forming the top five are Higgins Contractors Ltd, HEB Construction Ltd and Transfield Services Ltd.



Major contractors: case studies

It is important to consider the role of MR&O in the overall business of players with a major share of the MR&O market. This helps us understand the extent to which these firms rely on MR&O for the continuation of their businesses, and therefore their susceptibility to changes (up or down) in the level of aggregation.

The key finding of this section is that among large physical works players, MR&O contracts account for 15% - 30% of revenue, while for professional services firms, MR&O accounts for around 6% - 15%. This suggests that larger professional services firms are less exposed in their reliance on MR&O contracts. Even though the proportion of revenue derived from MR&O is higher for physical works firms, this has fluctuated over the last 10 years even as total firm revenue has grown, suggesting these large firms are resilient to varying values of MR&O contracts captured.

Physical works

Historically, two players have dominated the physical works MR&O market, but a third strong player has emerged in recent years.

Fulton Hogan Limited (Fulton Hogan)

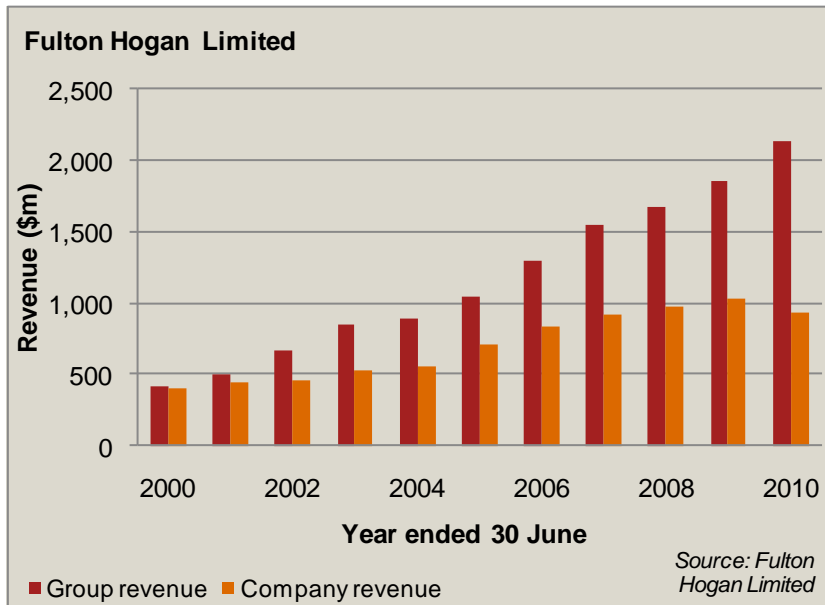
Fulton Hogan is New Zealand's largest MR&O infrastructure provider in revenue terms, with 2011 group revenue of \$2.4 billion³ and employment of 5,500.⁴

Figure 19 shows Fulton Hogan's group and company revenues for the period from 2000 to 2010.

³ Fulton Hogan Limited. (2011). Annual Report.

⁴ Kompass New Zealand. (2009). General Information. http://nz.kompass.com/profile_NZ885602_en/fulton-hogan-ltd-gi.html accessed 19 January 2012

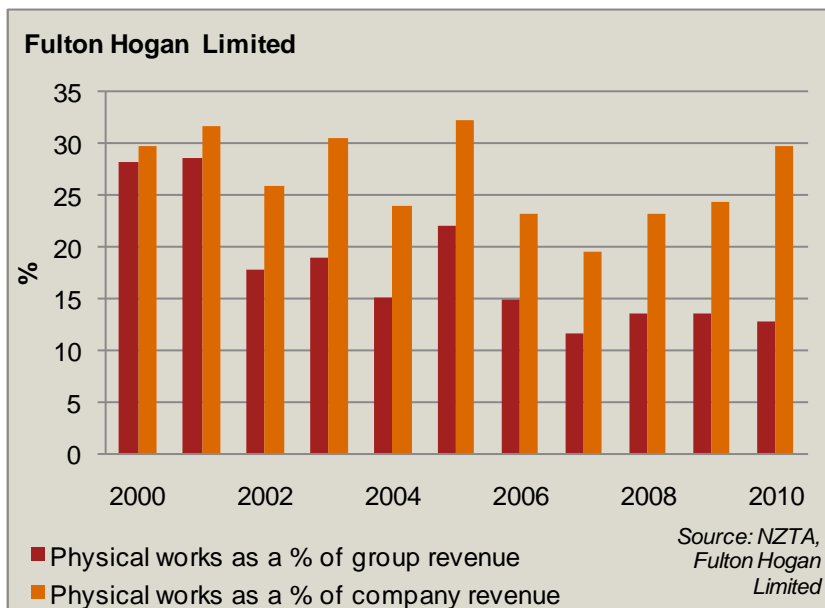
Figure 19 Sustained revenue growth for Fulton Hogan Limited



Averaging approximately 18% revenue growth per annum, Fulton Hogan group revenue has surged over the 10 years since 2000. This trend is not consistent with physical works as a percentage of total revenue (see Figure 2), which has been declining overall over the same period. This comparison indicates that MR&O is not the sole driver for Fulton Hogan group’s revenues.

Figure 20 shows MR&O as a percentage of Fulton Hogan’s group and company revenues for the period from 2000 to 2010.

Figure 20 MR&O significantly contributes to Fulton Hogan Limited’s business



Although MR&O is not the sole driver for revenue, it can be concluded that MR&O does form a significant part of Fulton Hogan’s New Zealand business. Since 2000, physical works as a percentage of total revenue has averaged over 25% per annum. This noted, there is growing acknowledgement



from Fulton Hogan that new sectors need to be explored with ‘flattening expenditure in the roading sector.’ To facilitate this focus shift, Fulton Hogan has signed a five year Joint Venture with John Holland, one of Australia’s leading contracting, engineering and services providers.⁵ Holland’s experience is aimed at increasing the New Zealand business’ capabilities in areas such as rail, tunnelling and power.

Recently completed projects by Fulton Hogan include the East Taupo Arterial Project, a 16km bypass on the outskirts of Taupo, including a 440m bridge. The project was delivered ahead of time.

Future growth prospects are solid at Fulton Hogan, with major infrastructure projects secured. These include the Tauranga Eastern Link and the Christchurch Southern Motorway projects. Valued at \$455million, the Tauranga Eastern Link project is the largest single project in dollar value built by NZTA. The Christchurch Southern Motorway project is valued at \$144 million and is due to be completed in 2013. Fulton Hogan has also secured a 20% share of the alliance agreement that will undertake the Christchurch horizontal infrastructure rebuild. This constitutes a significant amount of future work for the company and a sustained level of involvement in the New Zealand infrastructure sector.

Downer New Zealand Limited (Downer)

Downer is New Zealand’s second largest MR&O infrastructure provider in revenue terms with 2011 group revenue of \$963 million⁶ and employee numbers of 4,500.

Figure 21 shows Downer group’s revenue for the period from 2000 to 2010.

Figure 21 Sustained revenue growth for Downer New Zealand Limited



⁵ Fulton Hogan Limited. (2011). People and Projects.

⁶ Downer New Zealand Limited. (2011). Annual Report.



Downer has suggested that they face a challenging market as a result of competition, the Christchurch earthquakes, and a reduction of government expenditure on rail and road infrastructure and maintenance.⁷ The earthquakes caused a reallocation of maintenance and infrastructure spending and customer expenditure was stalled while damage assessments were being performed. Although these factors reduced revenues in 2011, Downer believes it is in a strong position to utilise rebuild opportunities in Christchurch. Under the interim alliance agreement with the Christchurch Earthquake Recovery Authority, NZTA, and Christchurch City Council, work for Downer includes roading, sewerage, and water supply pipelines.

Figure 22 shows physical works as a percentage of Downers group’s revenue for the period from 2000 to 2010.

Figure 22 MR&O contributes significantly to Downer’s business



Physical works as a percentage of company revenue averaged near 35% for the ten years to 2010, indicating a heavy reliance on maintenance and operations. Although a slow decline in the percentage accounted for by physical works is apparent, any large reduction in physical works would make a significant difference to Downer’s revenues.

With reduced government expenditure on rail and roading, Downer has increased investment in training and innovation in the telecommunications sector. Current related work includes end-to-end management and implementation for the Ultrafast Broadband Initiative and mobile builds for Telecom and Vodafone. Employing over 1,000 telecommunications field technicians, Downer is well positioned to take advantage of opportunities in this sector.

Recently completed work by Downer includes the US\$60 million Vanuatu Transportation Infrastructure Project, the Ruby Bay Bypass, and the Matahorus Gorge Realignment Project for the

⁷ Downer New Zealand Limited. (2011). Annual Review.



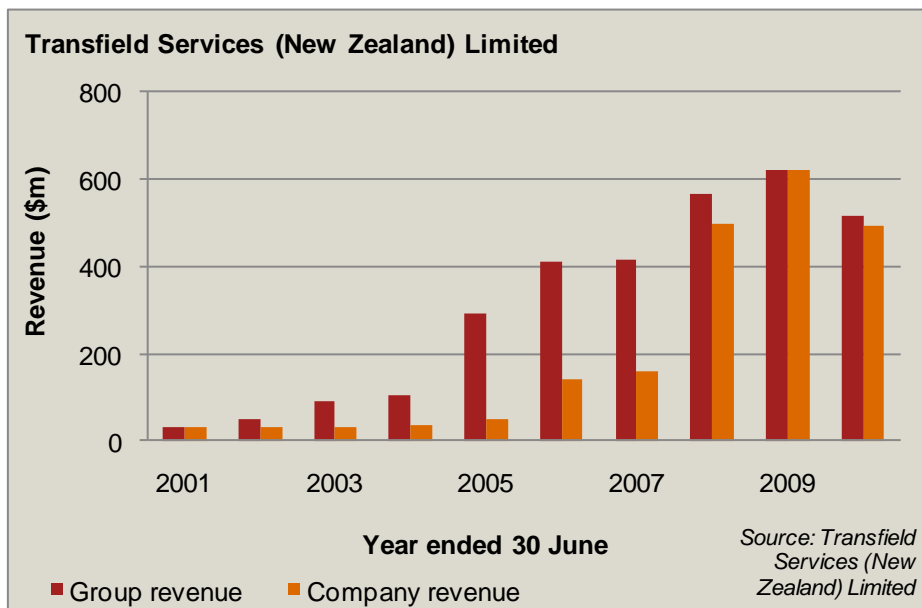
NZTA. Future works include the Hamilton Ring Road project, valued at \$60 million. This project is part of Access Hamilton, a series of initiatives for Hamilton’s transport system.

Transfield Services (New Zealand) Limited (Transfield)

Transfield is a significant competitor in the New Zealand infrastructure sector with 2011 revenue of \$538 million⁸ and 3,500 employees.⁹

Figure 23 shows Transfield’s group and company revenues for the period from 2001 to 2010.

Figure 23 Strong revenue growth for Transfield Services (New Zealand) Limited



Transfield benefitted from strong growth in the power and telecommunications sectors in 2011. This was considered to have protected the business from weak conditions in other sectors such as roading. Transfield’s annual report acknowledges that road activity has fallen due to a temporary reduction in NZTA’s capital expenditure.

Transfield’s current New Zealand focus is on telecommunications and electricity distribution, both of which are experiencing greater investment. As the country’s largest high-voltage electricity provider, supplying services to Transpower, Transfield has strong revenue prospects in the electricity sector. Sustained work volumes are expected in the future with a current backlog of electricity based capital projects.

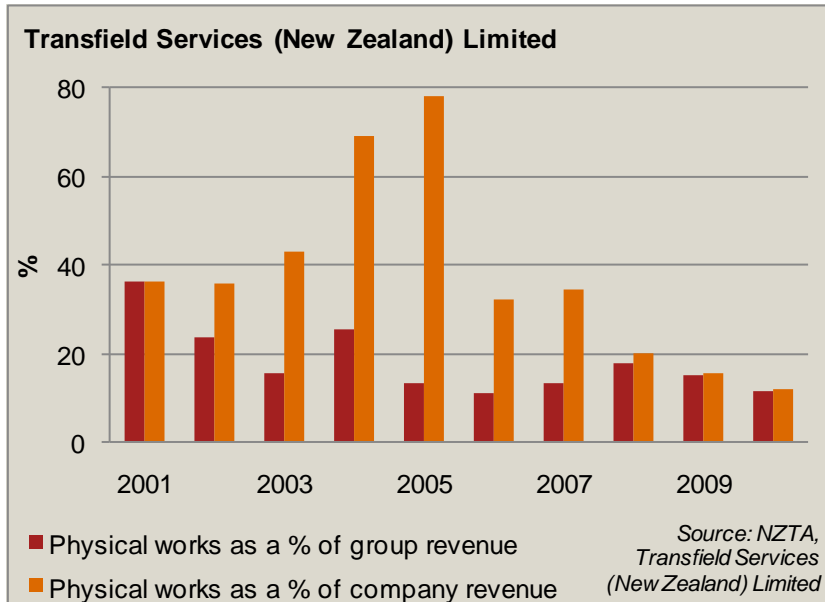
A joint venture has been signed with WorleyParsons, a resource and energy based company. Transfield subsequently believe they are well placed to capitalise on growth sectors in New Zealand, including natural resources. This new direction is also reflected in the wider business where the Transfield group has acquired Easternwell, a leading Australian energy and mining service provider.

⁸ Transfield Services (New Zealand) Limited. (2011). Annual Report.

⁹ Kompas New Zealand. (2011). General Information. http://nz.kompas.com/profile_NZ674374_en/transfield-services-ltd-gi.html accessed 19 January 2012

Figure 24 shows physical works as a percentage of Transfield’s group and company revenues for the period from 2001 to 2010.

Figure 24 Transfield’s reduced reliance on MR&O revenue generation



Transfield group’s physical works as a percentage of revenue have declined since 2001. This trend provides evidence of Transfield’s growing focus in electricity and telecommunications. This focus is likely to extend in the future where road infrastructure is not regarded as a large growth sector. Physical works as a percentage of revenue was around 10.5% in 2010 for both the group and company. This indicates that large reductions in MR&O spending would be damaging to Transfield, but to a lesser degree than to Fulton Hogan and Downer.

Future growth prospects for Transfield services are strong in the telecommunications sector with contracts signed as part of the government’s \$1.5 billion UFB rollout. A 10-year \$260 million contract has been signed with Enable Networks for the provision of telecommunications services. Similarly, a 10-year \$202 million contract has been signed with UltraFast Fibre Limited for service provision.

Professional services

Opus dominates the supply of MR&O professional services in New Zealand although other players like MWH are playing increasing roles.

Opus International Consultants Limited (Opus)

Opus is New Zealand’s leading professional services provider for MR&O in revenue terms. It had reported revenue of \$368 million¹⁰ and 1,800 employees in 2010.¹¹

Figure 25 shows Opus’ group and company revenues for the period from 2000 to 2010.

¹⁰ Opus International Consultants Limited. (2010). Annual Report.

¹¹ Kompas New Zealand. (2010). General Information. http://nz.kompass.com/profile_NZ214524_en/opus-international-consultants-ltd-gi.html accessed 19 January 2012

Figure 25 Sustained revenue growth for Opus International Consultants Limited

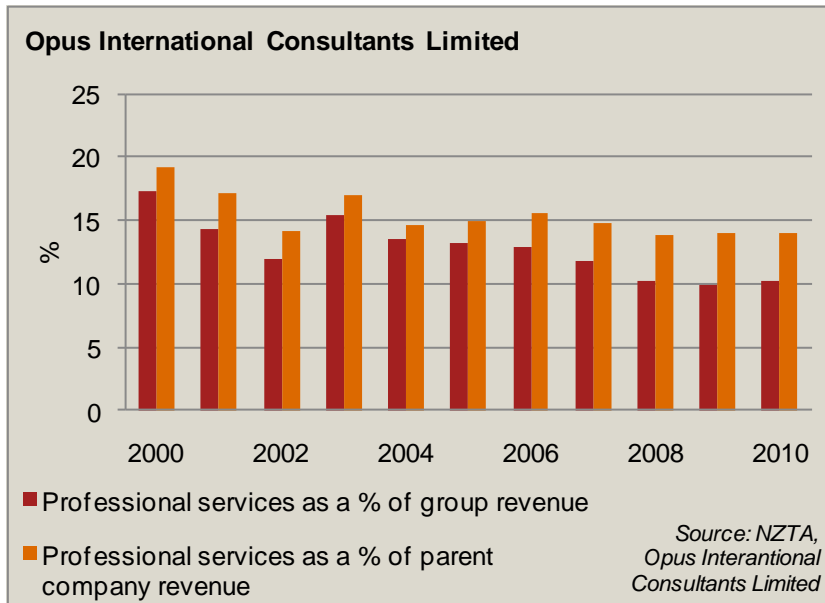


Opus group’s New Zealand business demonstrated consistently strong growth from 2000 to 2009 with an average annual growth rate of approximately 15%.¹² The slow housing market continues to limit architectural growth. Despite this outlook, prospects for growth are regarded as positive at Opus with a significant level of design work expected for the Christchurch rebuild. Expertise in seismic design also places Opus in a strong position for future growth opportunities.

Figure 26 shows professional services as a percentage of Opus’ group and company revenues for the period from 2000 to 2010.

¹² Opus International Consultants Limited. (2011). Half-year Report.

Figure 26 Lessening reliance on MR&O professional service provision



Opus’ professional services as a percentage of group revenue has had an evident reduction since 2000. This trend is inconsistent with overall revenue growth which has showed strong improvement over the same period. This trend comparison indicates that at 10.25% in 2010, Opus group’s MR&O professional services forms a significant part of the business. If current trends continue, however, this reliance should be expected to lessen over time.

Secured future work for Opus includes a five year contract for the roading network for Tauranga city council, and the design of a new shopping mall in Auckland for Westfield NZ.

MWH New Zealand Limited (MWH)

MWH is a multinational firm with significant wet infrastructure experience as well as other specialisms including energy, building, and industrial asset management. MWH New Zealand reported 2010 revenue of \$88 million,¹³ with staffing of 800 employees.¹⁴

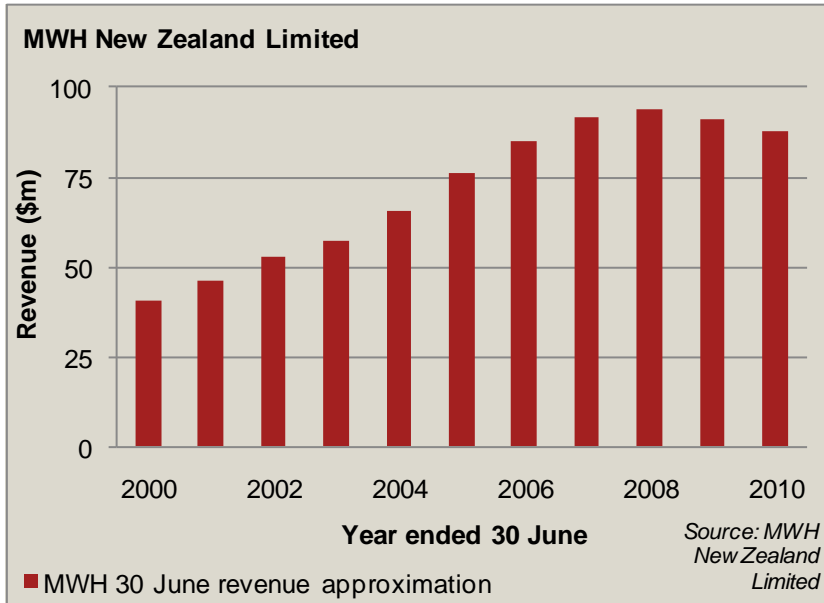
Figure 27 shows MWH’s revenue for the period from 2000 to 2010.

¹³ MWH New Zealand Limited. (2010). Annual Report.

¹⁴ Kompas New Zealand. (2010). General Information. http://nz.kompass.com/profile_NZ654273_en/mwh-new-zealand-ltd-gi.html accessed 19 January 2012



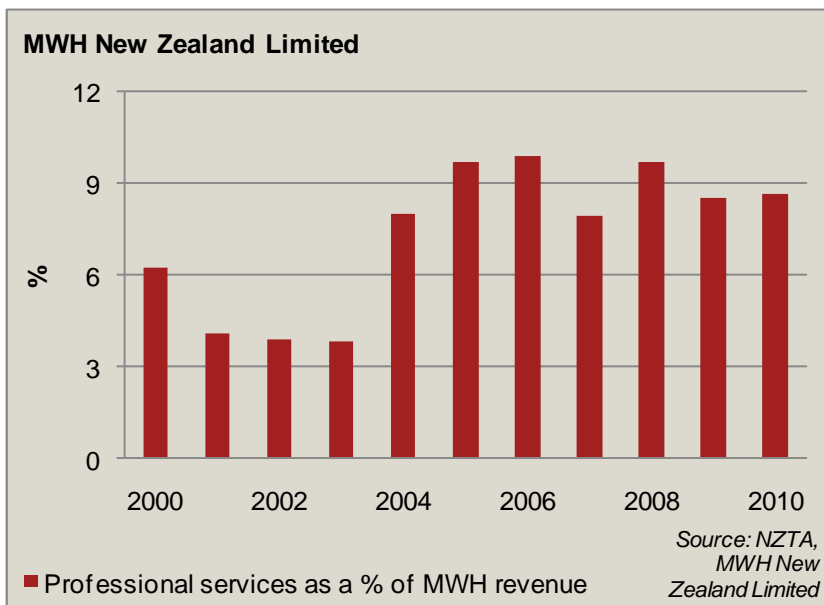
Figure 27 Slowing growth for MWH New Zealand Limited



MWH has experienced flatter revenue since 2008 after an average growth rate of about 11% annually from 2000 to 2008. This trend is inconsistent with the role that MR&O professional services plays as a percentage of total revenue, highlighting that overall company growth is not hinged on professional services levels.

Figure 28 shows professional services as a percentage of MWH’s revenue for the period from 2000 to 2010.

Figure 28 Stabilised portion of revenue from professional services over last seven years



MR&O professional services as a percentage of revenue has been relatively consistent since 2004. This provides an indication that professional services has not been a strong growth segment of the business



recently. Compared to Opus, the professional services percentage is similar; however, Opus is a far larger firm in New Zealand, with revenue about five times larger than that of MWH.

MWH has a strong position for network management contracts in New Zealand. The business holds four of the state highways contracts and nine long-term professional service contracts in New Zealand. It is also heavily involved in road assessments and design of roading projects.

Secured and ongoing contracts for MWH include a \$3.5 million project to assess SH1 between Otaki and Levin, and the Woodend Corridor investigation and reporting project. The former is to determine required improvements for SH1 whilst the latter considers an alternative for future state highway configuration.

Evaluating MR&O procurement approaches

Having discussed the current situation in terms of MR&O procurement, we now evaluate the implications of the status quo in terms of the principles of a healthy market. We then consider how two alternatives would satisfy each principle.

Our focus is both short-term and long-term, and two alternatives are compared with the current state.

The status quo

The current approach to procuring MR&O services comprises a mix of contracts. Some are larger, longer-term contracts, typically won by the larger firms; others are smaller contracts, which are more likely to engage smaller, localised businesses.

Current market trends indicate that the number of businesses is decreasing, but businesses themselves are becoming larger. Similarly, the number of contracts is declining, while the average value of contracts is growing.

With construction work demand set to increase in the mid-term, it is important to evaluate the status quo via the design principles for a healthy MR&O contract award market to understand how well the current system ensures:

- fiscal efficiency;
- economic efficiency;
- sustainable profits for private contractors;
- public and political acceptability; and
- predictability of process.

Return to RCAs: Fiscal efficiency

The current procurement market for MR&O services appears dynamic. The trend towards some bundling and aggregation of contracts indicates a reduction in transaction costs, and the level of competition in the market suggests tender prices are fair and offer good return to government.

Return to New Zealand: Economic efficiency

The procurement approach for MR&O services also appears economically efficient. Competition appears to be strengthening. For example, in physical works, smaller firms within the top 10 firms have increased their market share, while the share of the top two firms has remained largely steady, indicating that the top end of the market is becoming more competitive.

In the professional services context, the market share of even smaller firms (those outside the top 10) has also increased, suggesting competition is also increasing in this market.

The average number of tenders for each contract let in 2009 was around 4.2, suggesting that at the current level of aggregation and bundling, there is still significant competition.

The re-awarding of contracts could be an area for further exploration. If a high percentage of contracts are re-awarded to the incumbent contractor, it may be worth investigating whether these tenders are



still competitive, and if the award process is transparent, in order to maintain a dynamic market and to make the best gains in economic efficiency.

Return to the contractor: Private sustainability

MR&O contracts represent a significant part of business to Fulton Hogan, Downer, and, to a lesser extent, Transfield Services and Opus International.

As noted from the data around market share movement, competition is increasing, and mid-tier businesses in the market are strengthening. This indicates they are receiving worthwhile return for their efforts. The increase in competition also indicates that a range of ***players have a legitimate chance of being awarded any given contract***, meaning sustainable profits are available to private contractors.

Public and political acceptability

There are no obvious problems with public and political acceptability with the current system of procurement of MR&O services.

Predictability of process: Transparency

As discussed at the beginning of this report, considering the procurement ***process*** is outside the scope of this report, but it is important for purchasers to ensure this process is geared towards predictably selecting the best contractor for the job, by appropriately weighting various considerations of the tender.

In terms of the ***approach*** to procurement, clear, objective and quantifiable evaluation criteria are required in order to maintain competition and to give individual firms a legitimate chance of winning contracts.

Given the large role of price in current contract awards (for example, 70% in physical works contracts), the tendering process appears to be transparent. Any moves to further increase this predictability and transparency would make this process even more robust. This would likely generate further fiscal and economic efficiencies.

Status Quo: Summary

The construction sector stands on the verge of a significant boom. It will be crucial to ensure a procurement process for MR&O services makes the best returns possible to RCAs, the wider economy, and businesses, while maintaining public confidence and a predictable and transparent process.

One way to monitor the perceived level of competition in a sector is to check whether the Commerce Commission is investigating the sector. The Commission has not blocked mergers or acquisitions for major players in the physical works or professional services sub-sectors in recent years.

A 2010 Commerce Commission study gathered information about the non-residential construction sector's current levels of awareness and understanding of competition law. The study found that some anti-competitive behaviour does occur in the wider sector. One common form of this behaviour is the submission of a cover price by a tenderer who does not legitimately want a job, in order to remain in the mind of the buyer, or to make another tenderer's price look better. While the reality of this practice is concerning, it is not a result of the level of aggregation or otherwise.



Our evaluation of the status quo against the principles set out in this report, triangulated with the fact that the body charged with ensuring competition in New Zealand has not seen a need to investigate the level of market concentration in the sector, suggests the current MR&O procurement system supports a dynamic market which offers efficiency to RCAs, New Zealand and contractors.

However, tweaking the balance between aggregated, bundled contracts and more localised contracts may present opportunities to increase these returns.

Aggregation and bundling

Aggregating and bundling the procurement of MR&O services would mean awarding a smaller number of larger contracts. Contracts would be of a higher average value, and would likely run for a longer average time period. More tender decisions may be made at a national level, and would likely be won by the larger firms.

This approach would be an extension of current trends, which show increasing contract values, and increasing business size, set against a decreasing number of contracts, and a decreasing number of businesses.

Return to RCAs: Fiscal efficiency

Managing a smaller number of tenders for MR&O services would inevitably **reduce the costs** involved with **processing, evaluating and awarding** contracts. An aggregated approach would fulfil the basic design principle of minimising administrative, evaluation and transaction costs for RCAs.

Again, this outcome does not consider the process of procurement, in terms of selecting an appropriate contractor, considering whole-of-life costs, and managing the contract, as that is not an aggregation/disaggregation issue.

Return to New Zealand: Economic efficiency

Sustainability of smaller firms may be compromised. Smaller firms may find themselves unable to submit tenders for large projects, either because of the resource required to prepare adequate proposals, or simply because they would not be capable of completing the large projects an aggregated procurement approach would generate. These smaller firms may be acquired by the larger firms, while some would likely fail.

This would lead to two economic impacts. Firstly, in the short term, we could expect to see a churn in employment, and movement of labour within the industry, as larger firms hire the displaced labour from smaller businesses. Secondly, competition in the sector would be reduced. To ensure healthy competition in the sector is maintained, **consideration should be given to the scale of aggregation and bundling, maintaining a desirable mix of contract lengths, and the number of capable tenderers.**

The reduced transaction costs noted in the fiscal efficiency evaluation of this approach would also offer opportunity to increase economic efficiencies.

Return to the contractor: Private sustainability

An aggregated approach to MR&O service procurement offers obvious opportunities for increased return to the larger firms in the sector. They would be able to take on more work, while producing fewer tenders, and therefore being able to streamline their tender processes. They may also be in a position to acquire smaller firms and grow their business. Larger firms would also benefit from increased certainty about their future income opportunities.

As discussed above, the return to smaller businesses may be reduced. However, joining a larger firm may present a welcome opportunity, and there is a possibility that larger firms, having won the larger contracts, would sub-contract parts of the project to smaller, local firms.

A further consideration is the possibility of “hollowing out” the structure of the industry through a small number of major players and a large number of small sub-contractors, with no contractors in the middle. This will reduce the likelihood of a small player having a legitimate chance to grow to be a mid-tier firm and then to step up to winning a major contract.

Public and political acceptability

The aggregation and bundling approach may present challenges in terms of public acceptability. The approach may, for example, attract international companies to submit tenders for large contracts (either in professional services or physical work contexts), which may not be perceived as positive by local communities. The job uncertainty and movement in the labour market described would also be a concern for workers and their communities.

Predictability of process: Transparency

With potentially fewer tenderers given the size of the contracts, a predictable and transparent process would need to be conscientiously maintained. To encourage a wide range of tenderers, and innovative solutions to each project, Requests for Tenders should be outcomes-based, allowing different solutions to be employed by contractors as long as they achieve the specifications set out in the Request for Tenders.

While not within the scope of this report, we draw attention to the consideration purchasers may give to various criteria of tenders. As suggested on page 6, with larger contracts, lesser emphasis may be placed on price, and more attention paid to the track record and financial viability of the contractor.

Aggregation and Bundling: Summary

Aggregating and bundling the procurement of MR&O services fulfils many of the design principles set out in this report, at least in part. This approach would increase return to the government. Although there would be some short term reduction in economic efficiencies, there are long term opportunities to increase the return to New Zealand, and clear opportunities for return to contractors. Challenges in terms of public and political acceptability may require further consideration. Finally, aggregation and bundling should not present undue obstructions to maintaining a predictable and transparent procurement service.

Disaggregation and localisation

Disaggregating and localising the procurement of MR&O services would mean awarding a greater number of smaller contracts to provide these services. Contracts would be of a lower average value, and would likely run for a shorter average time period. More tender decisions would be made at a local level, and would likely increase opportunities to engage smaller, local firms.

This approach would constitute a clear deviation from the current construction sector trends outlined earlier in this report. Current trends show that the number of roading construction businesses is decreasing, but the businesses themselves are getting bigger. This trend is reflected in the data for contracts; while the annual contract spend has more than doubled in the last 10 years, the number of contracts has dropped by more than half. Disaggregating the procurement approach would mean a significant change of direction for the sector.

Return to RCAs: Fiscal efficiency

Disaggregating the MR&O procurement market would likely impact negatively on the fiscal efficiency and the return to the RCAs. Processing and evaluating a larger number of smaller tenders would fail to minimise administrative, valuation and transaction costs for the RCAs (whether NZTA or Councils), which goes counter to the fiscal efficiency principle.

The increased burden on contractors to tender for more smaller jobs could add costs for them (see return to contractor below) forcing costs up in the sector, and thus poorer value for money for purchasers of MR&O services.

Return to New Zealand: Economic efficiency

Awarding a greater number of smaller contracts will likely lead to increased competition, as more companies (of varying sizes) will be able to bid for contracts. For smaller scale projects, small companies may also enjoy economic advantages, by facing lower overhead costs, for example. The disaggregated approach to procuring MR&O services may ensure the sustainability of these smaller players, and their contribution to the New Zealand economy.

However, contracting smaller players may pose a risk to broader economic efficiency if those businesses lack the infrastructure enjoyed by their larger counterparts. For example, larger firms may have better quality control measures and available cash reserves to correct faulty work. Larger businesses also have a greater ability to access, and perhaps more importantly, to invest in new technologies and innovations to improve the quality of their work.

Furthermore, a disaggregated approach is likely to discourage overseas-based entrants from entering the market (whether in physical works or professional services) as no one job would be sufficient to justify the initial investment.

As mentioned earlier in this report, the link between fiscal efficiency and economic efficiency within a government procurement context is implicit. The increased transaction costs of disaggregation would also impact negatively on economic efficiency.



Return to the contractor: Private sustainability

Contractors would likely suffer a reduced return if a disaggregated approach were adopted. Businesses would face increased costs associated with producing more tenders and the duplication of work this would involve. Furthermore, these costs would eventually be passed on, and the fiscal and economic efficiency discussed above would be further impacted. Economies of scale may lead some businesses to reduce the number of projects they tender for.

Disaggregation would also shorten the average length of contracts. Shorter contracts may result in less certainty for businesses; particularly for larger firms, who may lose the confidence to invest in people and capital.

Larger firms may also face problems in terms of geographic dispersion – not only would they need to bid for a greater number of contracts, they would need to try and co-ordinate winning contracts in one geographic region, to maximise the efficiency of their plant and labour force.

Public and political acceptability

Contracting local firms and the prospective increased employment of local workers would likely resonate well with New Zealand communities, although it would be hard to gauge this, especially given that many of the major players in the sector originated in New Zealand, and are to an extent seen as iconic New Zealand success stories.

This localised approach is likely to discourage the entry of large international players to the New Zealand market, which may be seen positively by some in local communities.

Predictability of process: Transparency

As mentioned above, the processing and evaluation of more tenders will mean an increased burden on NZTA and Council administrative services. Extra resources would be required to deal with this increased volume of work – if the system was over-burdened, the robustness and perceived transparency of the evaluation system could be compromised.

Even if sound, clearly quantifiable evaluation criteria are put in place, the sheer volume of tenders likely to need evaluating for each project may reduce the thoroughness of the evaluation.

Disaggregation and localisation: summary

A disaggregated and localised approach to the procurement of MR&O services fails many of the design principles set out at the start of this report. Disaggregation would mean a move away from current trends. It would likely reduce fiscal efficiency and return to the government, and while it would increase the sustainability of smaller players, it may still reduce broader economic efficiency by reducing the sector's investment capability. Businesses would face increased costs, and may feel a reduced certainty about their future income potential. Finally, in order to maintain a predictable and transparent procurement process, much higher spending on administration would be required.

Conclusion on MR&O procurement approaches

Given the number of active contracts within the MR&O space, and the current operation of the MR&O market in New Zealand, we believe there is scope to significantly reduce the number of contracts at the local and highways levels without substantially reducing competition and value for money.

Nevertheless, there are limits to which this approach can be taken before economic efficiency and fiscal efficiency are impacted.

Figure 29 visually presents the types of impacts that aggregation and bundling have on a number of fiscal, economic, commercial and social considerations.

Figure 29 Aggregation and bundling can have both positive and negative impacts

Disaggregation/ unbundling	Factor	Aggregation/ bundling
↑	Innovation	↓
↑	Competition	↓
↓	Productivity (economies of scale)	↑
↓	Evaluation, processing and admin costs	↑
↓	Private profits (overall)	↑
↑	Flexibility of sector	↓
↑	Political and public acceptability	↓

How much value is placed on each of these considerations will determine how far RCAs are likely to move toward either extreme of the spectrum. For instance, if the overall productivity of the economy is considered (while the fortunes of individual businesses are assigned a lower weighting), aggregation/bundling is a likely outcome. If concerns about competition (to ensure the future possibility of improved value for money and strength of the industry) is weighted more heavily, this is likely to put a limit on the amount of aggregation/bundling that occurs.

How much aggregation/bundling should there be?

The key to this question is the need to maintain a mix of contract sizes and lengths that reduce the administrative and compliance costs for the RCA and the contractor without significantly reducing competition or hollowing out the construction sector.

One way to achieve this balance may be through greater aggregation at the highways level while maintaining a large number of medium-sized contracts at the local road RCA level (with small contracts perhaps handled through sub-contracting). An alternative could be to aggregate/bundle at the local road RCA and maintain a mix of contract sizes at the highway level, although this would be far more complicated to implement given the disparate nature and needs of local road RCAs across New Zealand.

Given the more homogenous nature of needs of the the highways network, one possibility may thus be to reduce the number of highways contracts sharply, to under 50 (and perhaps as low as 15 - 20), as long as at least 150 - 200 contracts are maintained at the local roading RCA level.

The reduction in the number of contracts at the highways level while sustaining the sector competitiveness overall is fundamentally dependent on collaboration with local road RCAs to ensure:

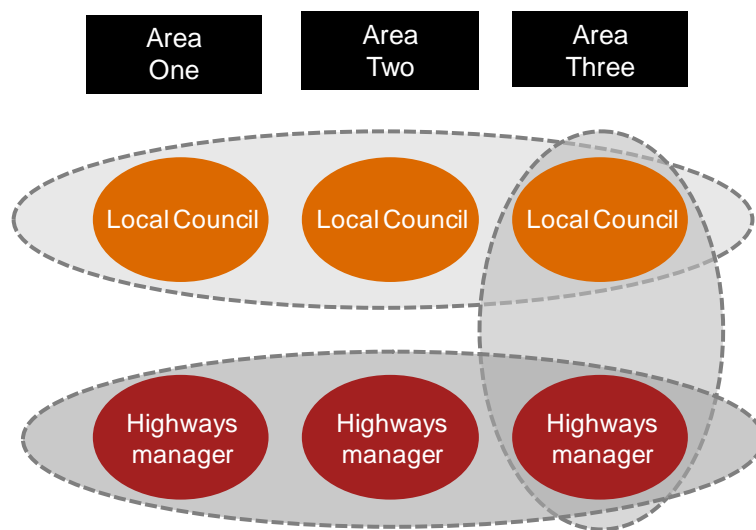
- timing/sequencing of contracts that ensures that in any given year a good mix of large and medium sized contracts for MR&O are put up for tender across local roading and highways; and
- contract size varies sufficiently across local roading and highways so as to sustain large and medium sized contractors directly, and small contractors through sub-contracts.

Collaboration versus aggregation/bundling

The focus of this report is on the current state of the MR&O market, and on evaluating approaches that increase or decrease bundling/aggregation. However, these approaches are closely linked to the concept of collaboration, because collaboration may help achieve some of the same benefits that bundling or aggregation could achieve.

Figure 30 illustrates different ways RCAs could collaborate to achieve these benefits.

Figure 30 How RCAs could collaborate



Greater collaboration may be between:

- local Councils across areas (say, several districts in Canterbury collaborating on procurement arrangements)
- highways asset managers (say, Otago and Canterbury highway asset managers collaborating on procurement arrangements)
- highways asset managers and local councils (say, Auckland Transport Authority and NZTA collaborating on procurement across Auckland).

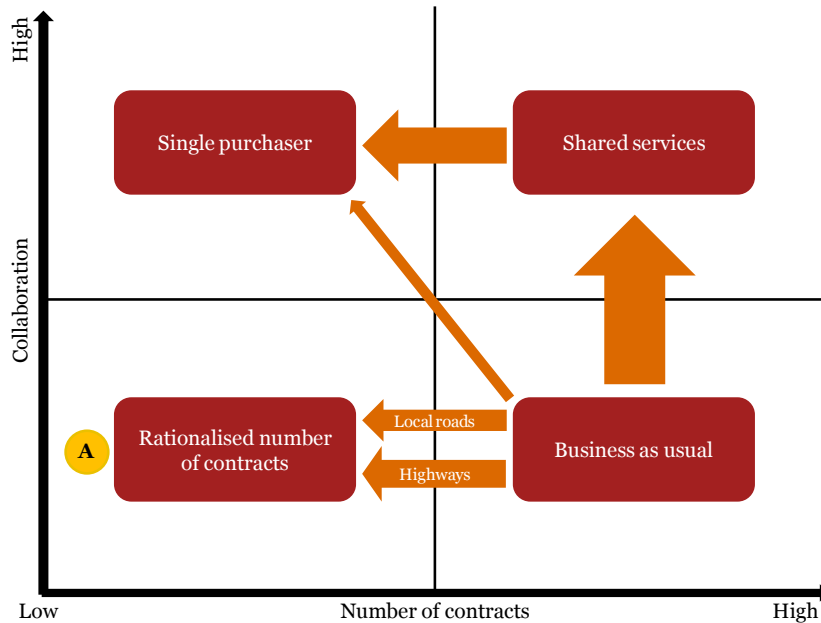
The benefits of collaboration in one of these three ways could include:

- economic efficiencies from a more coordinated transport network
- fiscal efficiencies through reductions in administration, evaluation and transaction costs from:
 - a simplified contracting regime used by multiple RCAs
 - pooling procurement skills so smaller RCAs have access to more experienced buyers.
- Better returns to the contractor through a simpler contracting process and/or a single point of contact for all contracts in an area.

Yet this collaboration **could occur separately** from a change in the number (and associated size) of contracts in each area, as shown in Figure 31. Indeed, a move toward greater collaboration is likely to be more easily achievable than a move toward greater bundling/aggregation. The ease of transition

(lack of resistance) is represented in the figure by the thickness of the arrows between the current state (Business as usual) and the three other options in the figure.

Figure 31 Collaboration and aggregation/bundling



We have concluded in this report that there is scope for some additional bundling and/or aggregation (from more than 200 highway and more than 400 local roading contracts currently serviced in any given year) without a significant reduction in competitive forces in the market. This reduction in contracts would need to be managed carefully to ensure that a sufficient mix of contracts remains across the highways and local roading RCAs.

There may be some resistance from local roading RCAs who are closer to smaller contractors by virtue of their geographic location in moving from BAU to a **rationalised number of contracts**. There may be greater incentive at the highways RCAs to significantly reduce the number of contracts given the administrative benefits, but we would caution that a move to somewhere close to the “A” on the diagram would have major implications for hollowing out the sector and reducing competition.

On the other hand, a move toward greater collaboration via a **shared service model** would probably appeal to RCAs. Regardless of whether this collaboration may be across geographical areas, or between highway and local roading RCAs in the same geographical area, the benefits particularly to smaller RCAs, of accessing a pool of skilled people with experience in purchasing MR&O services, or of simplified contracts, would be demonstrable. There would also be benefits to the contractor, large or small, by having one office across an area or across several areas to which tenders are sent, and where the same contact people deal with contracts on an ongoing basis.

A move to a shared services model will create its own benefits in terms of reduced processing, evaluation and administration costs at the RCA level. It may also allow for a rationalisation of the number of contracts at some later stage to a **single purchaser model** with reduced contracts. Once again, though, it will be important to monitor and maintain the right mix that allows for innovation and competition while simplifying the contract award and management requirements.



Appendix: Restrictions

This Report has been prepared solely for the purposes stated herein and should not be relied upon for any other purpose. We accept no liability to any party should it be used for any purpose other than that for which it was prepared.

This Report is strictly confidential and (save to the extent required by applicable law and/or regulation) must not be released to any third party without our express written consent which is at our sole discretion.

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We have not independently verified the accuracy of information provided to us, and have not conducted any form of audit in respect of the Company. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied.

The statements and opinions expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise.

The statements and opinions expressed in this report are based on information available as at the date of the report.

We reserve the right, but will be under no obligation, to review or amend our Report, if any additional information, which was in existence on the date of this report, was not brought to our attention, or subsequently comes to light.

This Report is issued pursuant to the terms and conditions set out in our engagement letter and the Terms of Business attached thereto.