

Engineering Construction Sector Update

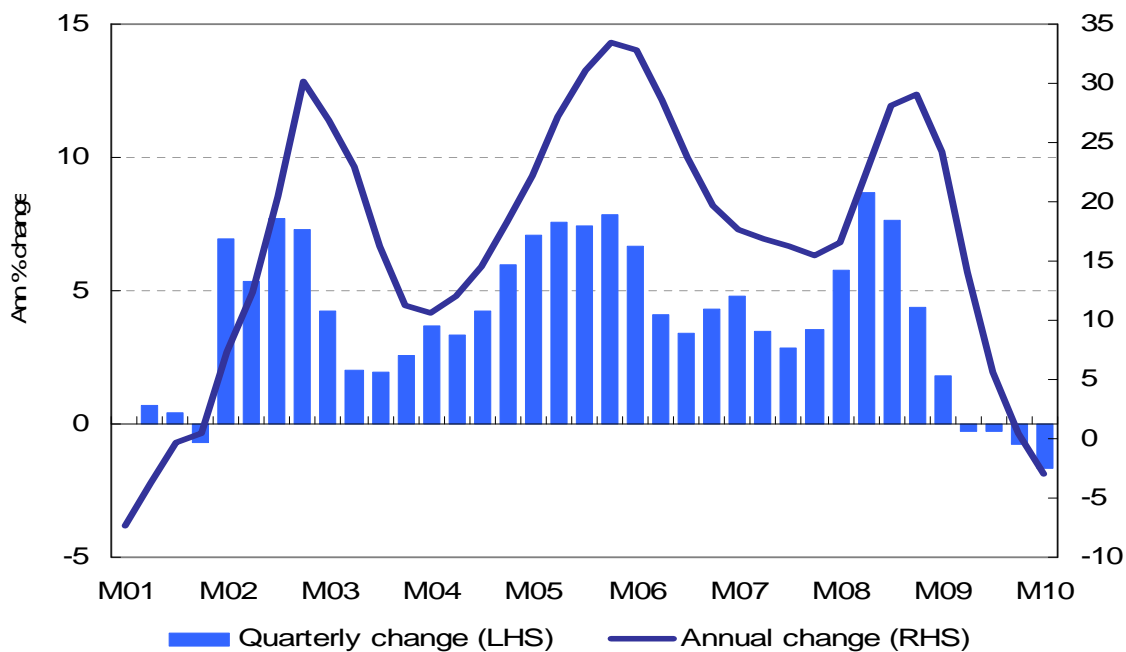
Introduction

The engineering construction industry, which is primarily involved in the construction of major infrastructure, mining and industrial plant projects, generated close to \$76.1 billion worth of activity (as measured by the value of work done) in the economy in 2009. This represents about 6.0% of gross domestic product for the year. Apart from the contribution to Australia's GDP, the industry represents a foundation for international competitiveness of the tradeable goods sector. The major sectors within the industry include mining and heavy industry (41.4% of total private sector work done in 2009), infrastructure (37.4%) and utilities (18.2%). In terms of state contributions, Western Australia accounts for the largest share of work (29.7%), followed by Queensland (26.9%), NSW (21.5%), Victoria (11.8%) and South Australia (5.6%).

This economics research note examines recent trends and prospects for the engineering construction sector.

Recent Trends

Chart 1: Engineering construction value of work done (current prices, trend data) – Australia



Source: Australian Bureau of Statistics

Engineering construction experienced continued expansion over the 8 year period from 2001 to 2009 at an average annual rate of 19.6% (current dollars), consistent with the sustained growth of the Australian economy. As a result, the total value of work done reached a record level of \$76.1 billion (current prices) in the year to December 2009.

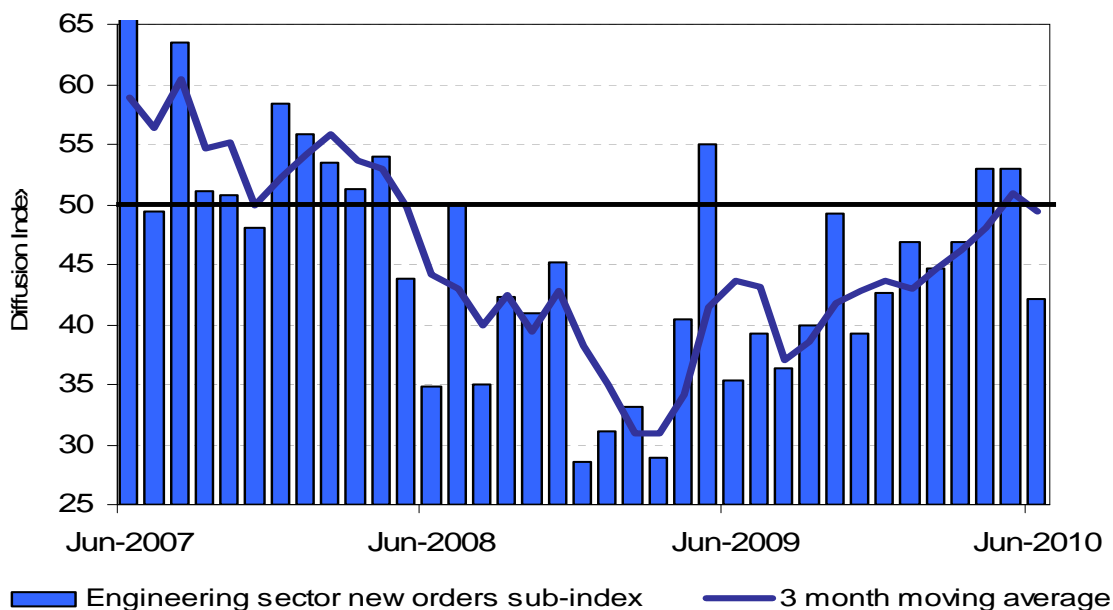
The underlying global and domestic drivers of growth in the industry over much of these years include:

- continued economic expansion in China and India;
- the upswing in the mining sector infrastructure cycle;
- aging infrastructure and past underinvestment by governments in economic infrastructure, particularly in utilities, road and rail infrastructure, and ports and harbor related construction; and
- population growth from an increase in the birth rate and higher levels of immigration and interstate migration.

Despite this sustained increase in the value of work, conditions weakened amid the global financial crisis (GFC) as heightened risk aversion, tight credit conditions and falling commodity prices led to project deferrals and cancellations.

As shown in chart 1, the value of work done exhibited a distinct moderation from the December quarter 2008 (+29.1% annual growth) through to the December quarter 2009 (+0.5%), with growth turning negative (-2.9%) in the March quarter 2010.

Chart 2: Engineering construction sector new orders: Australian Performance of Construction Index (PCI®)



Source: Australian Industry Group Australian Performance of Construction Index (PCI®)

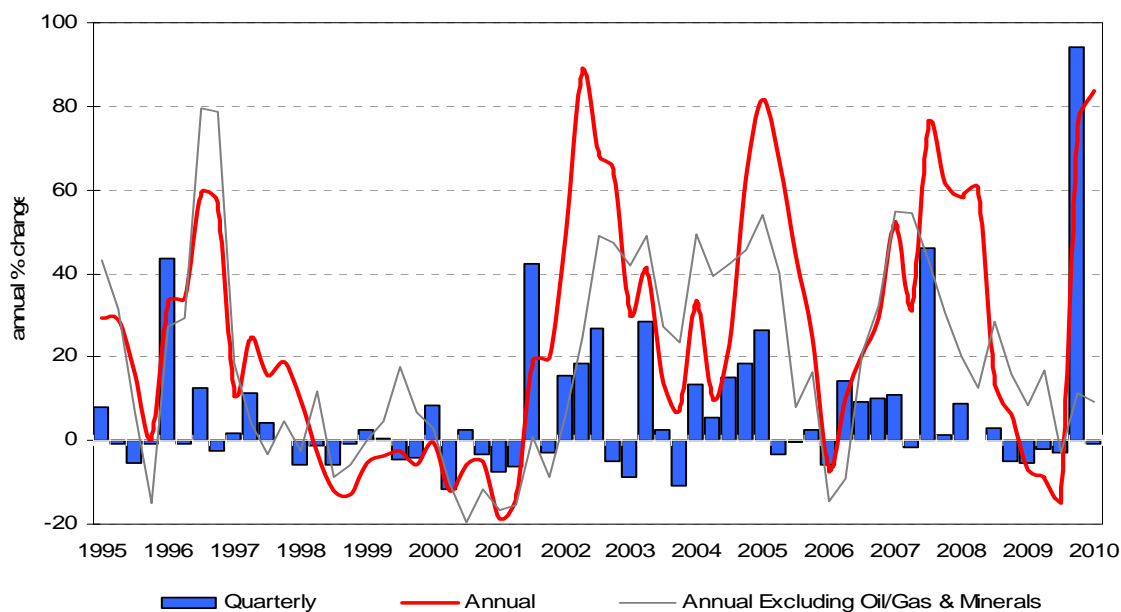
The findings of the Australian Industry Group/HIA Performance of Construction Index (Australian PCI®) – the lead indicator of overall activity in the construction industry – reveal that this weakening coincided with lower levels of incoming new business for engineering construction companies, a trend which became most apparent from May 2008. As depicted in Chart 2, the period from May 2008 to March 2010 was typically characterised by monthly Australian PCI® new orders sub-index readings below the 50-points no change level, signalling contracting levels of new orders as firms struggled in their efforts to win new business.

Nevertheless, ABS data reveals that while the industry experienced weaker conditions during this period, the level of work done still expanded by 5.4% or \$3.9 billion (current prices) in the year to March 2010.

Work in the Pipeline Still Strong

A key indicator of future conditions in the engineering construction industry is official data on the pipeline of work yet to be done. As shown in Chart 3, the rate of growth in the value of work yet to be done was at a strong level throughout 2007, with growth peaking at an annual rate of 75.6% in the September quarter. This strong increase in the project pipeline, particularly in the resources, utilities and transport infrastructure sectors, underpinned the solid growth in work done by the industry over the first three quarters 2008. It stemmed from work already established by the private sector prior to the GFC and a continuation of strong growth in public funded work.

Chart 3: Engineering construction value of work done yet to be done (current prices, original data) - Australia



Source: Australian Bureau of Statistics

While 2008 and 2009, saw the project pipeline soften, with annual growth turning negative in the March quarter, June quarter and September quarter 2009, work yet to be done has since been reinvigorated by the reinstatement of investment plans in the industry's largest end market comprising the oil and gas sector and mining and minerals processing. This reflects the continued strength of Asian demand and price increases for coal and iron ore, and is highlighted by the 85% annual rate of increase in the "resources" project pipeline in the March quarter 2010.

As a result of this recent strong growth (see Chart 3), engineering construction work yet to be done is currently valued at record level of \$82.6 billion, 83.5% higher than a year earlier. Consequently, work done in engineering construction is expected to remain at near record levels over the medium term.

By major industry end-market, oil, gas and minerals comprises the largest component of work yet to be done (\$58.2 billion) representing 70.4% of the total. This is followed by utilities with \$9.6 billion (11.6% of total), roads, highways and sub-divisions at \$8.3 billion (10.1% of the total) and railways at \$2.9 billion (3.5%).¹

Sector Outlook Improving

The latest Australian Industry Group/Australian Constructors Association Construction Outlook Survey (May 2010) reveals that the value of engineering construction work is forecast to rise by 6.5% (current dollars) in 2010, before lifting by 8.9% in 2011. The improved conditions are expected to be largely driven by growth in mining related construction and the large number of transport and oil and gas projects in the pipeline. Current and forecast rates of growth in turnover (Australian Industry Group/ACA survey basis) in key resource based sectors of construction are provided in Table 1.

Table 1: Resource Construction Outlook – Australia (annual % change in turnover from construction work)

	2009	2010 (f)	2011 (f)
Mining	5.6	8.6	13.4
1. Chemical, petro-chemical plants	1.6	-2.3	5.7
2. Oil and gas processing	1.6	9.9	14.5
3. Other "downstream" processing plants	24.5	11.5	5.9
Total Heavy Industrial (1-3 above)	11.0	9.6	10.0

Source: Australian Industry Group/Australian Constructors Association Construction Outlook survey, May 2010

As indicated, the value of construction work in mining is forecast to register solid growth in 2010 and 2011 on the back of the improving global outlook and stronger commodities demand. Within the heavy industrial resource based sector, the outlook is dominated by the high level of work expected

¹ This is the style for footnotes.

in oil and gas processing projects, including the \$50bn Gorgon LNG project, which will have a significant impact on business investment over the next five years.

Table 2: Infrastructure Construction Outlook – Australia (annual % change in turnover from construction work)

	2009	2010 (f)	2011 (f)
1. Transport	7.2	7.6	10.0
2. Telecommunications	0.7	3.4	3.3
3. Utilities	-3.0	6.0	7.8
4. Other Infrastructure	4.7	-1.6	1.8
Total Infrastructure (1-4 above)	4.7	5.7	7.5

Source: Australian Industry Group/Australian Constructors Association Construction Outlook survey, May 2010

Table 2, which provides current and forecast rates of growth for key infrastructure construction sectors, shows that the expansion of the infrastructure market in 2010 and 2011 is expected to be led by solid growth in roads and rail projects, in line with a range of large-scale Government transport initiatives either underway or in the pipeline. The utilities sector (covering water supply and electricity generation and supply projects) is also expected to be a major contributor to growth.

Key project initiatives by infrastructure market sector include:

Transport: \$37.0 billion planned expenditure by the Federal Government in the period 2008-09 to 2013-14 in road, rail and port infrastructure, and significant State Government allocation to transport projects such as New South Wales \$22.3 billion commitment to transport over the next four years and the on-going roll out of projects in the \$38 billion Victorian Metropolitan Transport Plan.

Utilities: Water supply projects have increased significantly since 2007. The Federal Government's water policy package involves the investment of \$12.9 billion over ten year period with spending on desalination, water recycling, irrigation and tax credits for urban and rural projects. Transmission and distribution expenditure is being driven by capacity constraints and the upgrading of aging infrastructure. Major planned electricity transmission and distribution projects currently underway include the \$600 million Gorgon LNG power stations and Origin Energy's \$780 million gas-fired power station in Queensland's Darling Downs. In late 2011, Origin Energy's \$800 million Stockyard Hill Wind Farm Project is scheduled to commence while AGL is proposing to construct a new gas-fired power station at Campbelltown, NSW for completion in 2012 at a cost of \$200 million.

Telecommunications: The Government and private sector to invest up to \$43 billion over eight years in the new National Broadband Network.

The above projects indicate that the growth of the infrastructure construction sector will continue to be underpinned by public capital expenditure. Table 3 shows that over the next three years, \$135.0

billion will be spent by the State governments on infrastructure. While not all of this infrastructure spending will be linked to 'hard' infrastructure with a direct impact on construction, a significant proportion will be.

A number of infrastructure initiatives were also announced in the 2010-11 Federal Budget, including the plan to invest \$37.0 billion in the period 2008-09 to 2013-14 in road, rail and port infrastructure, and the establishment of an infrastructure fund which will be worth more than \$5.6 billion over ten years.

Table 3: Planned State Government Infrastructure Expenditure (\$ billion)

	2010-11	2011-12	2012-13	Total
New South Wales	16.6	15.7	14.9	47.2
Queensland	17.1	14.0	13.5*	44.6
Western Australia	7.6	6.0	5.9	19.5
Victoria	6.4	5.2	4.6	16.2
South Australia	3.6	2.2	1.7	7.5
Total	51.3	43.1	40.6	135.0

Source: State Government Budget Papers, July 2010, Macquaries Equity Research, October 2009

Supply Constraints Pose Risk to Growth

Despite the positive outlook for the industry, a key risk to growth centres on labour and input supply shortages. The strong increase in demand for labour and materials, particularly in the infrastructure and expanding resources sector, was a clear theme emerging from the May 2010 Australian Industry Group Construction Outlook survey (chart 4).

Chart 4: Supply constraints in construction – major/moderate sourcing difficulty



Source: Australian Industry Group/ACA Construction Outlook Survey, May 2010

Reflecting this, 54.9% of companies surveyed expect to experience either major or moderate difficulty in the recruitment of qualified labour during the six months to September 2010 (up from 48.5% in the previous six months). A further 35.4% expect major or moderate difficulty in the sourcing of sub-contractors (up from 27.2%). For capital supplies, the expected degree of major or moderate difficulty during the six months to September 2010 is 41.9% for the sourcing of building materials (up from 33.3%).

These supply constraints are already being reflected in the emergence of upward pressures on costs and have the potential to adversely impact on project commencements, and the industry's growth potential.

Conclusion

After demand for construction was hit hard through the GFC, the outlook for the engineering construction sector has improved in recent months reflecting the strength in demand for commodities and the increasing shift to project re-starts. Other key positives for the industry include the significant infrastructure plans of Federal and State governments, and the upturn in oil and gas project activity. With a strong pipeline of work, the outlook points to a lift in growth in the second half of 2010 and 2011 as reflected in Australian Industry Group/ACA Construction Outlook (May 2010) survey findings. However, the rise in activity is expected to lead to a significant tightening in the labour market with skill shortages looming large as a risk to growth.

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