The National Crisis in Construction

Shaky Foundations

CFMEU Construction & General
EXECUTIVE SUMMARY

Australia’s construction industry has reached crisis point. From cracking apartment buildings to massive cost overruns in public infrastructure, there is not one part of the sector that isn’t failing in some way.

The economic costs of failure are piling up. In the short-term, we are seeing professional insurance fees skyrocket, threatening a downturn in one of the economy’s leading sectors, as well as general cost blow-out and delays that impeded the level of activity and decelerate the productivity gains that flow from infrastructure investment. In the medium term there will be the costs of remediation, estimated to be $6.2 billion and ultimately a loss of confidence and therefore value in the nation’s biggest asset class.

This is a crisis with a very human face, with dire financial consequences, given that for most people, property is the biggest investment they make in their lives.

The scale of failures in the construction industry are staggering.

Independent research commissioned by the CFMEU Construction and conducted by Equity Economics has found:

- The cost of rectifying defects in apartment buildings constructed over the last ten years will amount to $6.2 billion.
- Over 3,400 residential apartment buildings have combustible cladding.

If the expression ‘safe as houses’ were to be mixed with the ‘lemons’ more typically associated with the second-hand car market, then long-term ramifications for how Australians accumulate wealth and plan their lives will be nothing short of diabolical.

The causes of these failures, though similarly multitudinal, have one common underlying thread: the systematic weakening of government as the protector of public interest in an industry that is riddled with asymmetries, informational and financial. The major forms of this are:

- Failure to adequately enforce existing building standards or ensure they keep pace with evolving building practices.
- Loss of public sector skills and capability leading to poor project scoping and design as well as the challenges for the private sector in dealing with an uninformed purchaser.
- Outsourcing of building approvals resulting in increased conflicts of interest and lack of oversight.

That can largely be attributed to the glib pursuit of deregulation and eradication of red tape. While initial moves in this direction of economic ‘reform’ were intended to address barriers to competition and innovation that arose during Australia’s protectionist era, they have since reached such extremes that damage is being caused to consumers and compliant businesses alike and only serve to benefit individual businesses that are subverting the public interest.

It needn’t come as a surprise that many of the operators cutting corners when it comes to building quality can be the same ones cutting corners on worker safety or pay and conditions. The construction workers employed on a project are often ideally placed to observe unsafe building practices that are not in the interests of the end customer, but without the industrial safeguards and protections in place cannot be expected to raise concerns.
Incidents that endanger the public will go unreported if construction companies are fitted with new legislative tools to report, silence and sideline effective union officials. Vital public whistle-blowers will be silenced.

That is why in the final instalment of this 3-part series, when canvassing the necessary public policy responses, we will outline the role workers and their representatives are able to play in protecting taxpayer and consumer interests. In an environment of systemic failure, when it comes to protecting the value in the family home, the backstop of a secure workforce with a protected custodian role will only be more vital.

EXECUTIVE SUMMARY

**THE NATIONAL CRISIS IN CONSTRUCTION**

**RESIDENTIAL APARTMENT CONSTRUCTION**

- **$6.2 BILLION**
  - To repair apartment defects in the last decade

- **3461**
  - Residential apartment buildings have combustible cladding

- **170,000**
  - Estimated apartments effected by the combustible cladding crisis

- **$31.7 BILLION**
  - Total value of new apartment commencement in 2018-19

- **14%**
  - Of the building and construction sector
Few Australians would not be aware of the problems in the construction industry. In fact, new issues are coming to light with such frequency that it’s actually impossible for any observers to stay up-to-date with what’s going on in the sector.

INSTINCTIVELY, everyone understands how serious the ramifications could be. Construction in the Australian economy represents around 11% of Gross Domestic Product\(^1\) and employs almost 1.2 million people or just over 9% of the workforce\(^2\).

The importance of property in this country becomes even more stark when we look at it from a wealth perspective, where housing makes up roughly 61% of household net worth\(^3\).

While the land itself will make a sizeable component of that, for most households that will offer little comfort should the building sitting on it fail unexpectedly. With a rising proportion of mortgages in arrears, too many Australians simply won’t have the financial buffer to easily absorb major remediation work to the biggest investment they will make over their life. Apartment owners throughout Australia are being forced into negative equity from which they will never recover because of sub-standard building works under-written by poor regulation.

Should building quality issues become widespread enough to cause a general loss of confidence in properties on the secondary home market, then the implications for liquidity and values are almost too scary to contemplate.

That might well explain the ongoing failure to tackle this at all levels of government. In what amounts to a sort of ‘cognitive dissonance’ in public policy, our political and industry leaders are well aware that we have a massive problem on our hands, but are paralysed by the fear that the necessary actions required to improve our industry could dampen activity in a still otherwise fragile national economy, where building activity is the main economic driver keeping the whole show from falling over.

Our economy has become dependent on a house-of-cards of cheap debt, building approvals, immigration and government funded infrastructure projects. This matrix is keeping us out of recession, but ours is an economy built on shaky foundations, underwritten by poor regulation and government oversight.

There is a path out of this mess and that is to act swiftly and decisively to restore confidence in Australia’s construction sector. Disempowering unions, who so often have blown the whistle on failures in the industry is the last course a government making sound public policy decisions should take.

Instead we must apply the strictest standards practical to new builds so as to remove doubt as to their quality, even to the extent that new builds become the preferred choice for aspiring homeowners. This can only occur through a national approach, which the CFMEU Construction has been calling for since 2015. We must look to best practice regulation which protects the consumer, rather than light-touch approvals which might appear to facilitate development in the short-term but through the erosion of confidence undermine its longer-term potential.

The second step, in parallel, will be introduce maximum transparency on Australia’s existing housing stock in order to reduce uncertainty in the secondary market and preserve liquidity and ultimately value for good

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quality assets. While this may force write-downs and/or costly repairs for those left holding the ‘lemons’, there are a variety of ways governments can help to ameliorate these impacts. This can include appropriate financial support such as the $600 million package announced by the Victorian Government for removing combustible cladding or reducing its associated risks. Such support can be justified by the tax revenues generated off-the-back of past activity and a recognition that these property owners are victims of a system which government has allowed to arise through poor regulatory oversight.

In this report we examine in detail the issues in the residential apartment construction sector to demonstrate how far and wide the problems have become and therefore the inadequacy of ‘tinkering’ with the system. Only a complete overhaul in the eyes of the public will help restore the necessary confidence to strengthen this vital part of Australia’s economy.

In a second report we look at examples of poor outcomes in social and civil infrastructure delivery, the typical causes of cost overruns and delays, as part of outlining the need for a reinvigoration in the role and capability of public sector in the scoping, design, contracting and oversight of major construction projects.
FLAMMABLE cladding, cracked building towers, water leaks and fire safety damage. These faults are a direct consequence of poor regulatory oversight and the outsourcing of government responsibilities for consumer and community safety to the private sector.

Bespoke research conducted by Equity Economics outlines the enormity of the problem in residential apartment construction. They find that “almost fifty per cent of new residential dwellings are apartments. The total value of new apartment commencements in 2018-19 was $31.7 billion, 14 per cent of the building and construction sector”

In this vital sector, they “estimate the cost to building owners and State, Territory and Federal Governments of addressing the structural and safety defects in these buildings will approximate $6.2 billion”, solely for apartments constructed in the last ten years. This figure is conservative and would more than double when earlier years are accounted for.

This is not confined to one state but is a problem that’s occurring all over the country. Of course, there are more instances in the more populous regions, particularly those undergoing rapid densification. And it’s the strategy of densification that state governments are relying upon to manage population growth that are being put at risk as construction risks grinding to a halt and homebuyer confidence evaporates.

Though large-scale residential developments are attracting most of the attention, this is largely due to the disproportionate safety risk they pose and the increased complexity involved with remediation for strata properties. Australia’s risk-based approach to overseeing building approvals means stand-alone housing isn’t subject to similar levels of non-compliance. Therefore, lower levels of scrutiny mean the situation could actually be even worse albeit with less risk to personal safety, with the impacts being more financial, including loss of long-term property value and reduced liquidity.

Figure 1: Estimated cost per state and territory of residential apartment building defects – central estimate, Equity Economics.

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Recognising these reasons to act at least prompted the Building Ministers Forum to Commission the Building Confidence: Improving the effectiveness of compliance and enforcement systems for the building and construction industry across Australia report. The fundamental issues identified, of poor supervision often conducted by those who have a client relationship with the proponent, remain unaddressed. In many States, private certification of development remains the bedrock, with very limited government oversight and allegations of corruption and excessively cosy relationships rife.

While individual jurisdictions are now developing their responses, as we shall see by the nature of the problems as well as the overlapping oversight, only a national response will ensure a comprehensive overhaul that avoids the buck-passing that will likely arise from isolated responses. A process that puts the spotlight on all governments at the same time will ensure the scrutiny necessary to lift each jurisdiction to the high standards possible.

The NSW Government has released the Building Stronger Foundations discussion paper as part of its consultations. Which in its current draft, seems unlikely to resolve the significant conflict of interests that can arise from the building designer being able to select their own private certifier to validate that the building plans meet all legislate requirements or their own building inspectors to verify that the build was completed in accordance with the approved plans. It is just a matter of short months since the most recent ‘reform’ process completed in NSW, and a handful of years from the previous. Ten months following the Parliament passing the Building and Development Certifiers Bill, its powers to more effectively oversight and police players in the building industry are yet to be put into effect.

Insurances for faulty building work have been identified as manifestly inadequate by the industry, government and insurers. They are only accessible in circumstances where other avenues have been exhausted, and professional associations are geared to protect their builder members. Outside Queensland, insurance schemes are the last resort, after mediation or legal action, and poor building standards are often identified as the root cause for government inaction. Parliamentary and other inquiries have occurred in most jurisdictions.

Still we have the parlous situation where engineers are not required to register in most States of the Commonwealth, with only Victoria, the ACT and Queensland acting to rectify this situation. In most States, the professionals designing a building and its systems is not required to even be registered, while tradespeople who work under them are licensed. Nationally, we lack a national skilled trades licensing scheme. All of these failures continue to imperil consumers, workers and the community, with the consequences of failure in construction being often tragic.

Finally, that the same issues have arisen across all states and territories around the same time is not a mere coincidence but to large extent a product of the well-intentioned but ultimately flawed move to a performance-based Building Code of Australia. Only Queensland has acted to implement a comprehensive, total supply chain responsibility for the use of compliant building products: and yet Australia has a porous market for non-compliant and non-conforming products.

Shergold and Weir’s recommendation that the Building Ministers’ Forum agrees its position on the establishment of a compulsory product certification system for high-risk building products remains in a quagmire despite been first raised at the BMF in July 2015.

If it took a flawed and poorly policed national approach to get us into this mess, it will require national coordination to get us out of it.
Unchecked failures in apartment construction

Combustible cladding
Perhaps the most notorious example of a failure in the building industry is the flammable cladding fiasco, which involves thousands of buildings nation-wide. Thankfully Australia has managed to avoid the catastrophic loss of life that befell London’s Grenfell Tower in 2017, where more than 70 people perished after a kitchen fire escaped to the building’s exterior and raced up the full height of the building in a matter of minutes. Preceding this was the Lacrosse fire in Melbourne’s Docklands which saw $5.7m in damages awarded following fire sweeping up combustible cladding at the building in November 2014.

Estimated number of residential apartment buildings in Australia with combustible cladding

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<tr>
<th>Jurisdiction</th>
<th>Extreme</th>
<th>High</th>
<th>Medium</th>
<th>Low</th>
<th>Total</th>
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<td>512</td>
<td>264</td>
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<tr>
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<td>409</td>
<td>388</td>
<td>200</td>
<td>1069</td>
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<tr>
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<td>107</td>
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<td>154</td>
</tr>
<tr>
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</tr>
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<td>11</td>
<td>60</td>
<td>57</td>
<td>29</td>
<td>157</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>233</strong></td>
<td><strong>1324</strong></td>
<td><strong>1256</strong></td>
<td><strong>648</strong></td>
<td><strong>3461</strong></td>
</tr>
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</table>

Note: Tasmania has been excluded as only 250 apartments in 3 stories or more high complexes have been built over the last ten years.

In the ensuing period, the issue has been examined in government audits and inquiries across Australia. In Victoria the State Government has committed $600 million towards a rectification fund.

**Failing Standards**

Equity Economics estimates that nearly 170,000 apartments are effected by the combustible cladding crisis, with devastating impacts on owners.

The flammable cladding represents a failing on multiple points of oversight.

- **Compromised building approval processes.** Non-compliant materials that should not have been approved for use or later used in substitution for approved materials without being identified in subsequent inspection.
- **Weak import screening processes.** Allowing the importation of non-compliant materials.
- **Flawed compliance regime for approving new materials.**
- **Failure of standards to keep pace with evolving business practices.** Despite the rapid adoption of new materials nothing triggered a second-look at whether the risk profile of construction was changing.

**Structural Defects**

On Christmas Eve 2018, residents in the 36-level Opal Tower heard loud cracking noises which led to the evacuation of the building. Actual cracks and damage to the building were subsequently visually confirmed rendering the building’s 392 apartments temporarily uninhabitable. Gradually groups of apartments were deemed safe for some residents to be able to move back in, but the final 169 apartments had to wait on remedial work to be completed and their residents spending almost 8 months incurring the cost inconvenience of living in alternative accommodation.

The interim report of the investigation commissioned by the NSW Government’s identified a number of factors that were the possible cause of the damage including poor quality construction materials, issues with the foundations, flaws or errors in the design of the structural systems, and poor quality workmanship or errors during construction. A considerable number of inconsistencies were identified between the materials and specifications used in the build and those specified either in the architectural designs or Standards.

The preferred contractual process for delivering projects through the ‘Design and Construct’ model allows for the letting of a complete project, without follow-up oversight of the compliance or otherwise of the project, allowing alterations and substitutions to occur.

**Water Leaks**

Non-compliant or poorly fitted cladding can also lead to water damage and mould as can ineffective waterproofing more broadly. Owners of a Melbourne apartment building are facing a $2.6 million bill ($72,000 per unit) to replace cladding that wasn’t installed in accordance with manufacturer’s instructions, and its possible more rectification work will be identified when the cladding is removed. As the two-decade old building is now outside of warranty, the owners will have to incur all costs themselves.

Even for apartment buildings still within warranty, such as the Johnston building in inner-city Brisbane, water damage and mould has rendered apartments uninhabitable for two years and on an ongoing basis. This has left owners out of pocket for the rental costs of alternative accommodation while an impasse between the insurer and the developer is worked through, a process complicated further by the developer being in a position to exercise their votes on the body corporate to influence any decisions on whether to lodge a formal complaint with the Queensland Building & Construction Commission.

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20 Chang.


FIRE SAFETY DEFECTS
While non-compliant cladding has soaked up much of the media attention and is indeed the most prevalent defect according to a recent audit by Deakin and Griffith Universities\(^\text{23}\), it is not the only fire safety issue plaguing many apartments. Indeed, the same study identified fire protection defects as the second most prevalent form of defects in multi-unit buildings, making up 13.26% of the defects in their audit sample. The types of defects included:

- Fire separation walls, that are designed to impede the spread of fire from one unit to the next, are compromised due to the use of incorrect materials, cracks or missing seals.
- Missing or incomplete fire collars that surround pipes and ducts passing through walls and are required to support the integrity of fire separation walls.
- Fire doors that are water damaged or have incomplete seals and therefore less able to limit the spread of a fire as per their design.
- Fire detection systems that aren’t properly installed or have missing smoke detectors.
- Incorrect or malfunctioning exit signage and inconsistent escape plans.

A 30-unit development in Sydney’s inner-city Zetland was evacuated in 2018 due to severe fire safety defects and additional water damage. Structural columns that were constructed without adequate fire-proofing and gaps in fire separation walls were among the many hazards that require rectification before residents can return to their apartments. Unfortunately for the owners, the costs of reparations are anticipated to exceed what is covered by their warranty insurance\(^\text{24}\).

WHAT IS DRIVING FAILURE?
There are multiple points from design to completion of construction where problems and defects can occur. But the most common element that can cause them to become as widespread as they have is when there is widespread breakdown in accountability, something that’s most likely to occur in four key stages of the process.

NON-COMPLIANT BUILDING PLANS
Before building can even commence, the plans must be certified as compliant with all relevant building codes and standards. Verification by an independent professional is meant to act as a safety check that the builder intends to use appropriate materials in the appropriate manner to meet the requirements of the building to ensure its ongoing performance.

Accompanying the shift to the performance-based BCA in 1996 has been the progressive outsourcing of the responsibility for certifying building plans. While the intention behind that may have been to address some of the shortcomings associated with local governments performance of this function, including lack of timeliness and risk of corruption, a system that places the selection of the building surveyor in the hands of the builder themselves is much too prone to conflict of interests because the builder is a potential source of future income.

This means defects are not only at risk of arising due to human errors made by the builder in finalising the plans and not identified by the surveyor (that is two professionals making the same mistake), but are now due to the more likely scenario of the surveyor overlooking non-compliance aspects for fear of missing out on work associated with the builders’ future projects.

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The next major point of failure is where the original plans were compliant and the green light given for building to commence, but then adjustments were made during construction.

This is what appears to have been behind some of the defects in the Opal Tower, where the investigation’s Interim Report although not able to prescribe the definitive cause of some of the failures, identified numerous inconsistencies between what was specified in the original designs and the materials and dimensions in the actual construction.

The VBA in its audit of Melbourne buildings found that 20% of external cladding products on high rise buildings were not what was specified in design.

Of course, part of the intention of the building inspection is to pick up any defects, but once again the potential for a conflict of interest is all too real, since the builders often select their own building inspector to sign off on the building being consistent with the plans.

Further, some aspects of any build can be difficult to assess at the point of completion, or even during other potential milestone inspections that may be required. This is where it becomes even more important for workers to be able to raise concerns around non-compliance without the fear of risking their employment.

Building practices and materials are rapidly evolving as is the overall level of densification that many of these new practices or ‘innovations’ are intended to support, including through reduced costs.

In this context, the private surveyors or building inspectors may well be fulfilling their responsibilities in complying with relevant codes and standards, but it’s the code or standard itself that is outdated or simply not up-to-scratch.

On the other hand, because of the private certification of building materials, the same potential conflicts of interests that exist in building plan certification and inspection might also be present in this part of the supply chain.

The recent suspension of CodeMark International (CMI) by the Joint Accreditation System of Australian and New Zealand is a case in point. While observers and the company are correct to point out that the suspension does not mean any products certified by CMI are necessarily non-compliant, since the questions were raised about the efficacy of CMI’s processes, it highlights the risk that manufacturer’s or suppliers of materials could intentionally seek out a certification process that offers the path of least resistance for their product. Rather than aligning scrutiny with the level of risk, this can have the exact opposite effect. That CMI has only a “small number of certified products” provides very little comfort.

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28 Ibid.
INADEQUATE ENFORCEMENT

Ultimately, the main reason why these three compliance failures can get out of hand and reach epidemic proportions is due to a lack of strict enforcement and repercussion for non-compliance, whether it be for the builder or one of the various certifiers along the supply chain.

Unless relevant state or Commonwealth authorities are seen to be acting with an iron-fist to deregister serial offenders or institute penalties that are both commensurate with the damages caused to others and adequate to deter industry participants from taking the financial gamble, we can expect to see these problems continue. According to adjunct professor David Chandler, who ran the inquiry into the performance of the Building the Education Revolution program, “the regulators in any of the state jurisdictions don’t have the resources or the spine, they just don’t have the budget”\(^{29}\). In many ways this pervasive non-compliance has arisen in much the same way that endemic wage theft has been allowed to become a business model across many sectors of our economy.

Complexity is sometimes raised as a major driver of non-compliance along with the idea that no one can be across every element of the BCA and supporting instruments. While there is some truth to the latter, it can never be seen as a legitimate reason to explain away repeated and systemic non-compliance. Indeed, with proper enforcement and oversight, complexity will be solved through increased specialisation and competency and ensure an appropriate commercial return for firms make the decision to invest in both. Whereas maintaining a lax enforcement regime will continue to encourage non-compliance.

A FEDERAL BYSTANDER

The Federal Government bears ultimate responsibility for the National Construction Code and National Standards which are then enforced through State regulatory mechanisms. Yet the failure to enforce these standards goes unchecked by the Federal Government, while citizens and consumers Australia-wide feel the effect of failure\(^{30}\).

Instead of addressing the most pressing issue in residential construction, the government is most intent on silencing those that blow the whistle on shoddy construction, giving the private sector the power to use disqualification of a union official as a weapon to silence critics.

Meanwhile, the regulation of the construction sector in Australia remains a maze, opaque and rife for manipulation with resultant shoddy work. There is no consistency and no hope from this government that they will act to resolve the pressing issues in residential construction.

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CASE STUDIES

GRENFELL TOWER
As referenced earlier, 72 people were killed in 2017 when the Grenfell Tower was engulfed in a fire which was intensified due to defective flammable cladding and non-compliant fire safety design.

Building industry insiders reported that construction workers and staff had been sacked for raising concerns about substandard work and the consistent use of non-compliant materials across the industry in the lead up to the disaster.

Under the Fair Work Act action taken by a worker is not considered industrial action if it was based on a reasonable concern about an imminent risk to their health or safety; but what is far less certain is if they refused to perform work in a way because of risk is rather to the end users of that building. If this behavior was considered industrial action it would act as a ground for deregistration of an entire union under the Government’s Ensuring Integrity Bill.

JAXON CONSTRUCTION DEATHS (WESTERN AUSTRALIA)
Two construction workers were tragically killed when a concrete slab collapsed onto them at the Jaxon construction site in east Perth. The construction union had ‘submitted more safety complaints about Jaxon’s sites than about any other builder in Perth’ and a colleague of the men said it was ‘only a matter of time before someone was killed’. There had already been several major accidents and ‘near misses’ at the site due to poor work safety practices.  

The Ensuring Integrity Bill would silence future whistle blowers seeking to raise the alarm on the use of non-compliant building materials or substandard design and workmanship, leaving the community at great risk.
