Australian banks are responding to threats of fintech disruption but their step approach to change has similarities to the local taxi industry's reaction to ride-sharing.

The big losers from the arrival of Uber and others in more recent times were taxi owners, including investors who, cocooned by protective industry rules, ploughed money into taxi licences within their self-managed super funds. Until recently such a strategy could have been profitable: So what went wrong?

"It is not the strongest of the species that survive, nor the most intelligent, but the one most responsive to change."

So said Charles Darwin, whose evolutionary theory uses 'survival of the fittest' as a means of describing natural selection. Hence, a market leader's response when challenged for ascendancy is important and critics say the taxi industry failed in this regard after the 'attack' from ride-sharing company Uber, preferring to rely on complaints against the unfairness of the lower-cost and less-regulated service.

The decision by the Victorian state government last year to scrap a raft of regulations and pay compensation of $100,000 for holders of their first taxi license, $50,000 for their second and nothing beyond that assigns owners and investors to losses that can never be recouped.

So what are the lessons from this in a broader investment context?

Clearly, one needs to be wary of industries that are monopolistic or oligopolistic in nature (either one dominant company or a handful of key players) due to significant regulatory barriers to entry. Examples of these are many across Australia, from telecommunications companies to the insurance industry and supermarkets.

But the most obvious parallel to the Uber situation may be the dominant position enjoyed by Australia's four major banks and their possible vulnerability to technological change.

The big four enjoy much larger net interest margins (NIM) - the difference between overall deposit interest and lending rates - than their counterparts in the U.K., Japan and Europe. In the UK, for example, the average NIM is around 60 basis points (BPS) for commercial banks whereas here it is close to 200 bps (2 per cent). Neither NIM levels nor profitability are reasons to be critical of local banks – they owe the latter to their shareholders – but their level of insulation to competition compared to in other parts of the world (due to the so-called 'Four Pillars' policy) exposes them to an exogenous shock.

To be sure, the policy contributed to a banking system that is the envy of many, but oligopolies don't often promote innovation, and outsized margins attract the interest of geographic and technological competitors just as it did in the case of the taxi industry.

Hence the very policy introduced by then Treasurer Paul Keating that helped strengthen our financial system may now be outdated, and the banks' reliance on it to preserve market share has become a risk for them and customers alike. And if the banks believe they don't rely on it, then that is even more reason to reconsider its efficacy.

The barriers to entry into the banking and payment systems around the world are already breached.

And as Uber showed us, rules and regulations that previously prevented market access can and will be broken when they contribute to inefficient outcomes. London's decision to revoke Uber's license is evidence of push back, however there are now other competitors in this same space.

Companies are encroaching on banks' traditional domain.

Alipay is a third-party online payment platform with no transaction fees launched in China in 2004 by Alibaba and controls half of China's online payment market. The size of that market is now estimated to be well over US$1 trillion.

Similarly, use of Apple Pay as a mobile payment and digital wallet service continues to climb. It lets users make payments using their Apple devices and many experts believe that with cash reserves in excess of US$150 billion, a foray into other areas of the traditional banking industry by the world's largest company is inevitable.

And the Australian banks are clearly worried.

Sounding suspiciously like a cartel, Commonwealth, Westpac and NAB, together with Bendigo and Adelaide Bank, last year asked the Australian Competition and Consumer Commission (ACCC) to allow them to negotiate as one with Apple for access to Apple Pay.

They also wanted the ACCC to allow them to collectively boycott Apple if their demands were not met, a move Apple described as "hard core and pernicious." "The proposed collective bargaining/boycott would slow innovation and reduce choices by protecting the applicant banks from competition with each other and from Apple for the next three years," said Apple in a 65-page submission to the ACCC.

The ACCC in April this year denied banks the ability to collectively bargain with Apple and boycott Apple Pay, opening a whole new door for digital wallets in Australia.

The penetration of peer-to-peer lending, crowd funding and similar direct counterpart financing is on the rise globally, which will also eat into banks' share of these domestic markets. And presumably customers are increasingly baulking at paying banks' exorbitant foreign exchange transaction fees, opting instead for low cost non-bank providers. Though the Big Four are embracing 'Fintech', dealing with a quantum shift in the way society transacts and borrows is something else for the international banking community.

Evidence of banks' response to these threats, along with recent bad PR associated with CBA in particular around its anti-money laundering failures, include a scrapping of ATM fees when using those not owned by your own bank, and steep cuts to what were exorbitant foreign exchange transaction margins – for NAB online a default of 5% in my experience.

It may not be too little too late, but Australian investors should nevertheless rethink their love affair with the banks, as the Four Pillars looks so 20th Century.

Conclusion: underweight Australian equities/banks as financial services comprises 40% of the local benchmark index.