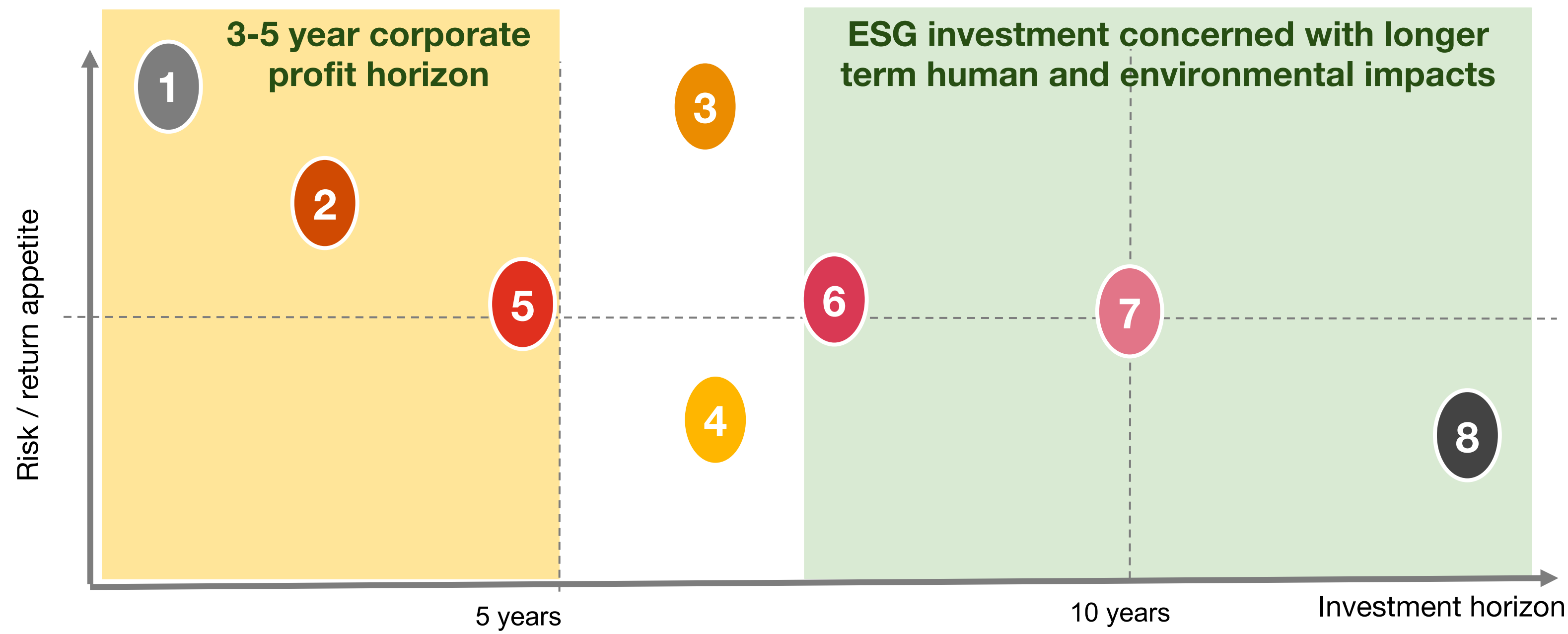
ESG and investment outcomes

July 2022

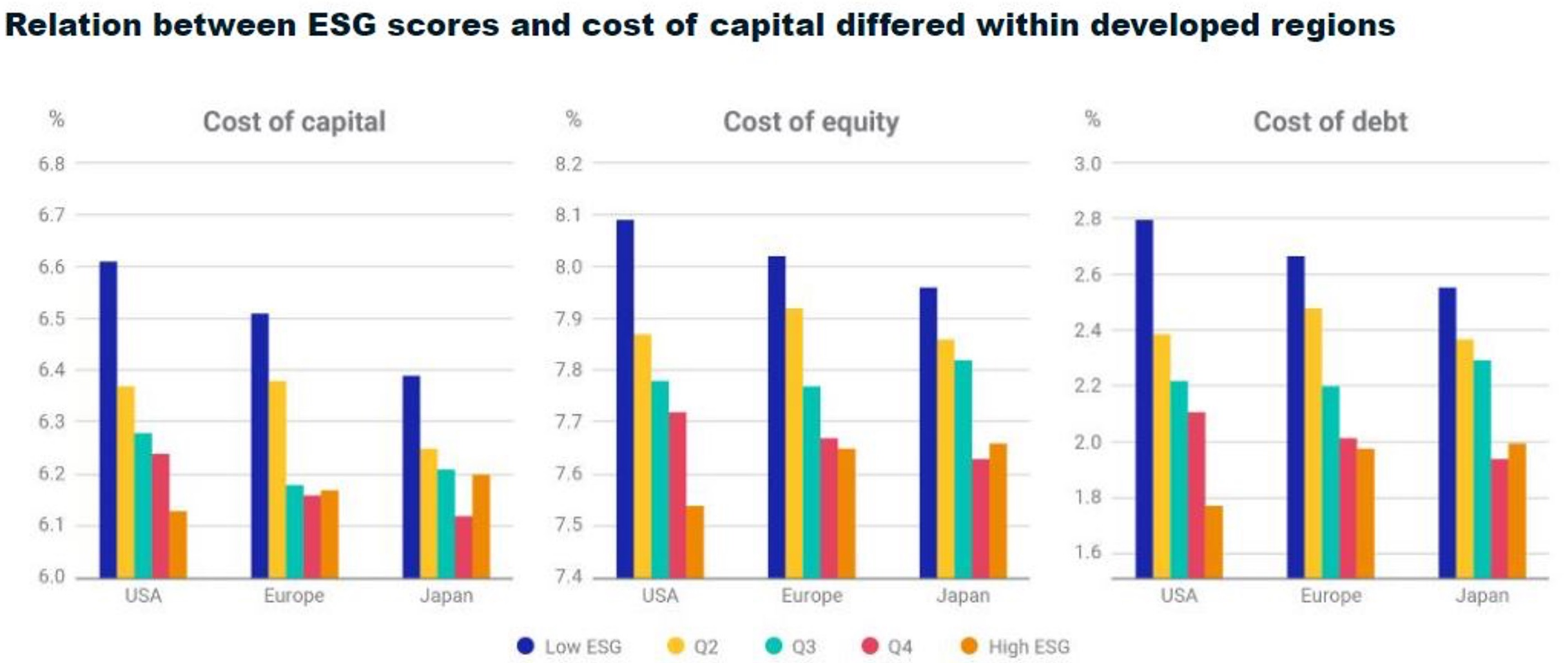
ESG can be seen as an effort to quantify investment risk & reward beyond a typical business cycle horizon



1. Hedge /alpha funds
2. Active funds
3. Private equity
4. Direct debt / bonds
5. Private retirement funds
6. Public / mandated pension funds
7. Defined benefit funds
8. Public sector funds

There is evidence that demand for ESG style investment has impacted cost of capital

MSCI meta-analysis of weighted average cost of capital in global capital markets showed some evidence that growth in ESG-style investment mandates is impacting capital costs



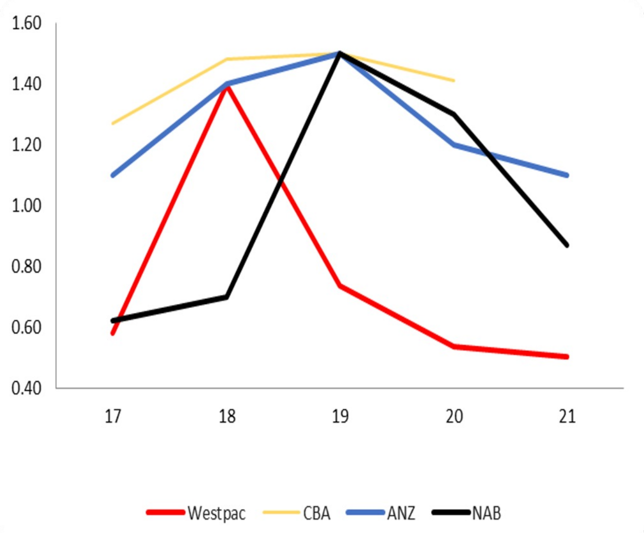
Monthly averages were reported over the period from Dec. 31, 2015, to Nov. 29, 2019. The average numbers of companies in the U.S., Europe and Japan over the analysis period were 538, 452 and 319, respectively.

Note the relatively short time period for calculation and bullish tone in equity markets with low rate environment in the calculation period may result in exaggerated differences among firm performance.

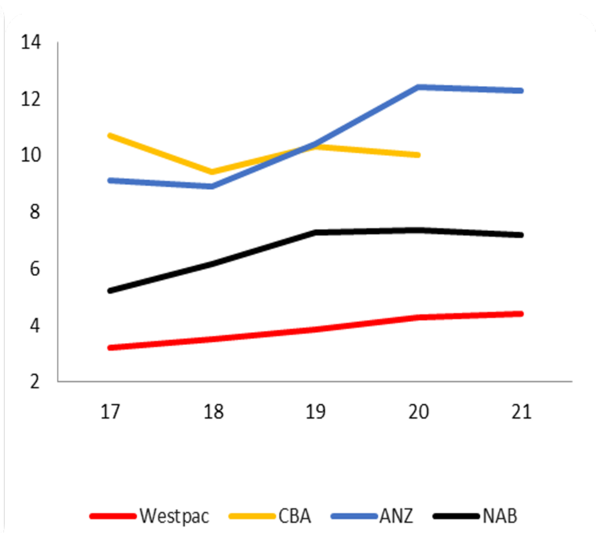
In Australia, we have seen declining investment in fossil fuel production

Across Australia's four major banks, total loan exposure to coal mining is just under $4 billion, down by nearly $1 billion since 2018. Loan exposure to all electricity generation is $33 billion, but fossil fuel electricity generation as a share of that loan book has declined to just under $10 billion.

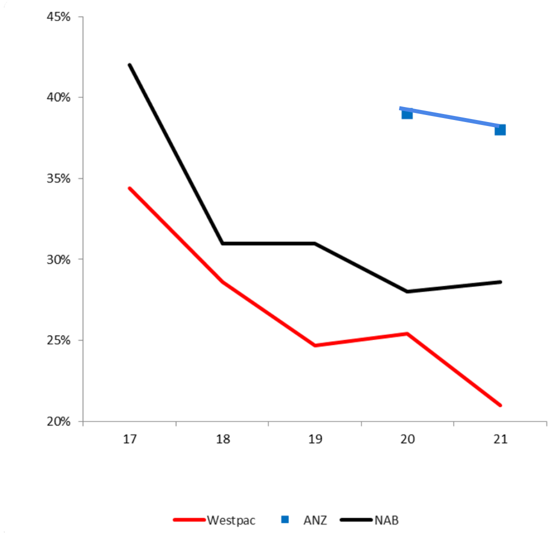
F Reported lending to coal mining, exposure at default* ($bn)



Reporting lending to electricity generation ($bn)



Share of investment in power production relates to fossil fuel generated production (%)

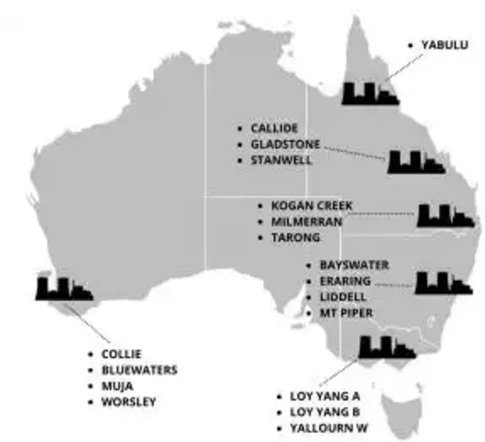


**Note this is a stock measure and does not capture gross new annual lending, refinancing or loan maturation*

Source: TCFD reports published by CBA, NAB, ANZ and Westpac. PwC calculations.

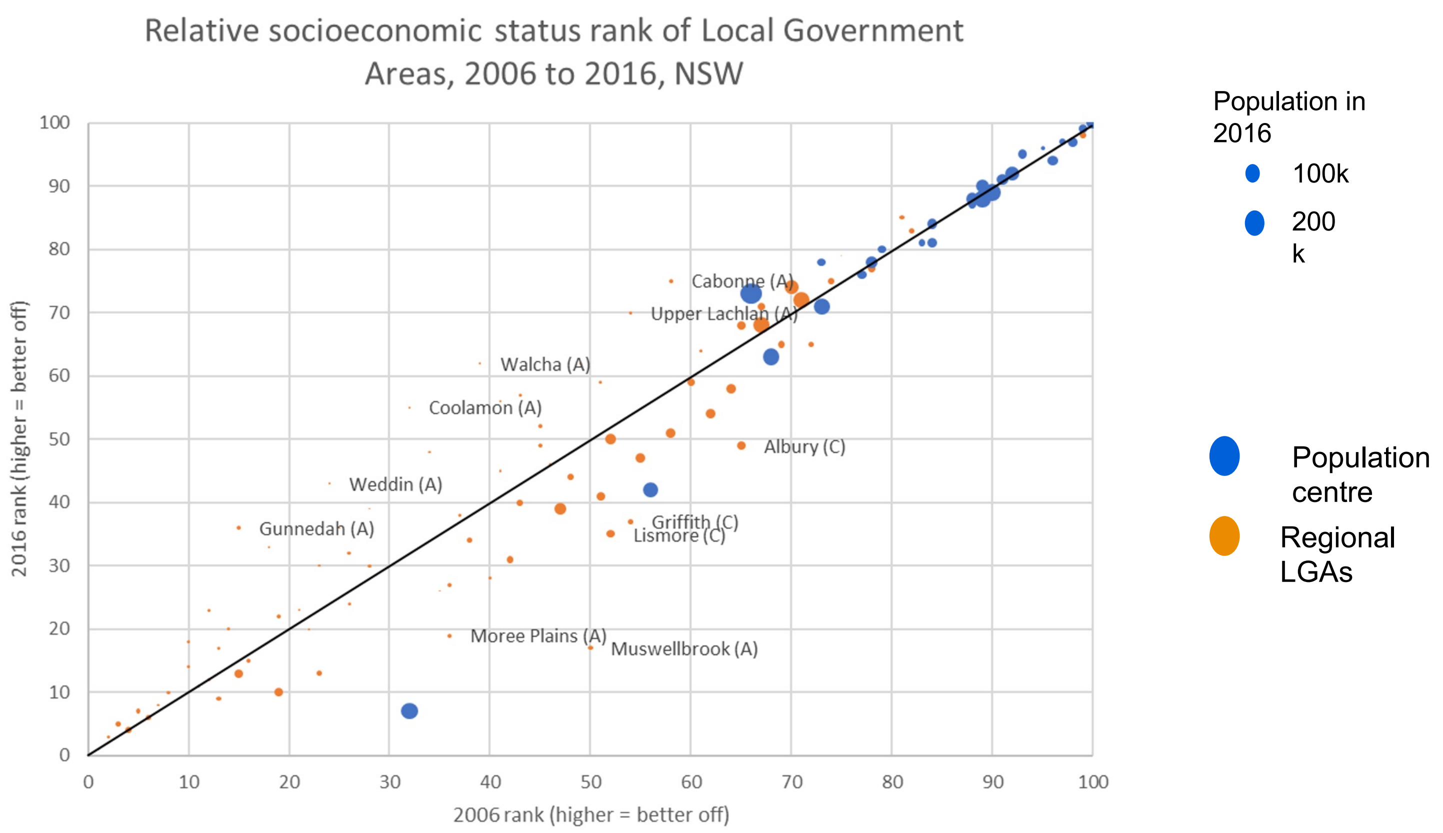
We have not seen evidence of investor appetite to finance the complete energy transition

At least 11 of Australia's 19 coal-fired power plants are scheduled to close by 2040 due to end of natural life. This represents 70% of all coal generated power in Australia.



Power plant	Commissioned	Scheduled closure	Max capacity (MW)	Owner
Liddell (NSW)	1971	2023	2,000	AGL Energy (AU)
Muja (WA)	1981	2022-24 (2 units)	854	Synergy (AU)
Yallourn (VIC)	1075	2028	1480	CLP Group (CH) (Aust assets 21% of installed capacity owned globally)
Callide B (QLD)	1989	2028	700	CS Energy (AU)
Vales Point B (NSW)	1978	2029	1,320	Sunset Power International (trading as Delta Electricity)
Eraring (NSW)	1982	2032	2,880	Origin Energy (AU)
Gladstone (QLD)	1976	2035	1,680	Rio Tinto (42.13%), NRG Energy (37.5%), SLMA GPS Pty Ltd (8.5%), Ryowa II GPS Pty Ltd (7.13%) and YKK GPS Pty Ltd (4.75%)
Bayswater (NSW)	1982	2035	2,640	AGL Energy
Tarong (QLD)	1984	2037	1,400	Stanwell (AU)
Tarong North (QLD)	2002	2037	443	Stanwell (AU)
Mt Piper (NSW)	1993	2040	2,100	CLP Group (CH)

Or take risk to improve social outcomes



Public funds are moving toward stewardship role; what is the capacity of pension funds to join them?

Spectrum of portfolio approach

	Traditional Investment	Responsible and Ethical Investment							Philanthropy
Approach		ESG Integration	Exclusions	Norms-based Screening	Active Ownership	Positive Screening	Thematic investing	Impact Investing	Grants
Method	Providing limited or no regard for ESG and ethical factors in investment decision making	The explicit and systematic inclusion of ESG issues in investment analysis and investment decisions.	Barring certain sectors, companies or countries due to business activities that are deemed unethical, harmful, or in breach of laws	Barring certain companies that do not meet minimum standards of practice based on international norms and conventions	The use of ownership to influence the activities or behaviour of investee companies - guided by ESG guidelines	Active investment in companies or projects selected for positive ESG performance relative to industry peers.	Specifically targeting investment themes e.g. sustainable agriculture, affordable housing	Investing to achieve positive impacts - requires measuring and reporting to demonstrate return	Using grants to target positive social and environmental outcomes with no direct financial return

Intention

- Avoids Harm
- Benefits Stakeholders
- Takes stewardship

Features & outcomes

- Delivers competitive financial returns
- Manage ESG risks
- Contribute to better system stability and economic sustainability
- Invests in real-economy outcomes

Source: RIAA, Responsible Investment Benchmark Report Australia 2021

Thank you

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