UNITED KINGDOM/EUROPE

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Inside

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28 January 2016
Macquarie Capital (Europe) Limited

UK Water 2020

Trust in Water…

Ofwat are proposing radical changes to the Water Industry

Ofwat are changing regulation to i) make good the Water Act (Water trading and non-household retail competition), ii) Meet challenges of population growth and climate change, iii) legitimise indexation, and iv) address affordability

We have analysed these c.1,000 pages of proposal in detail. Our view is that the proposals are ***broadly*** sensible, albeit complex, with upside company potential.

Trust in Water. Could be positive if Ofwat consistent

There are **three** areas of changes proposed, with licence modifications required for water companies, a DEFRA review on household competition and PR19 review proposals. Water 2020 Design Consultation finishes February 10th.

1) Ofwat proposing license modifications, of which most important are:

⇒ Moving from RPI to CPI indexation, with 50% indexation 2020-25

Our view: We see this debate as a bit of a red herring. As long as this policy is NPV neutral – the critical point – we see the lever of PAYG to alter cashflows to suit company balance sheet structures. At face value we see potential for higher dividend payments, offset by lower growth.

⇒ RCV carve out, introduction of competition in water resources and sludge

Our view: RCV protection is critical for investors. We estimate RCV will be 100% of current wholesale RCV in 2020 falling to >95% by 2025.

1) Independent bilateral agreements in water resources could lead to gaming and/or stranding. We would advocate a single buyer/SO/MO in each water resource zone, 2) sludge assets have highest risk of physical stranding of existing assets and clarity on these needed still 3) Increased complexity and incentives to change behaviour **will reward innovation**.

⇒ Direct procurement of larger projects to third parties

Our view: Direct Procurement is in principle a good idea. Ofwat needs to limit unintended consequences and increases in costs and complexity.

2) Govt review due this summer on introducing household competition

Our view: This area needs clarity before design can be completed. Ofwat will respond by September. Competition can i) increase choice and reduce bills, ii) lead to culture change, but iii) will also increase complexity and cost.

3) Next review: PR19 *proposals*

Our view: Assessment of using debt indexation rather than fixed price debt is less likely with 5 year price control**.** Every water company has differing debt/RPI-indexed debt. We believe there may need to be individual financeability reviews, offset by **pain and gain share on debt costs**

Mergers need to be encouraged. We see 5 regulated reviews in the 2019 FD, with significant complexity. We also see this review highlighting economies of scale and innovation. Mergers should be encouraged.

Remember to use side comments in this section

To insert side comments automatically, highlight text, go to Templates, and insert side comment.

Trust in Water…

We have read through nearly 1,000 pages of Ofwat's Design Consultation document, published at the end of last year. The Consultation closes February 10th and we outline our conclusions and views in this note.

The original document: Water 2020: Regulatory framework for wholesale markets and the 2019 price review can be found here: http://www.ofwat.gov.uk/wp-content/uploads/2015/12/pap_con20150912water2020.pdf

There are a number of top down proposals, and a myriad of detailed proposals, in this Design Consultation. In this note we have analysed the proposals to work through the impact on the listed UK water sector.

Trust in Water… Overall we see Ofwat's proposal as striking a good balance between investor concerns and evolving the industry. We still have 3 years until PR19, and this timetable and Ofwat/investor engagement is positive. We would caution however that there are number of detailed issues that still need clarity, particularly on the introduction of competition and asset procurement.

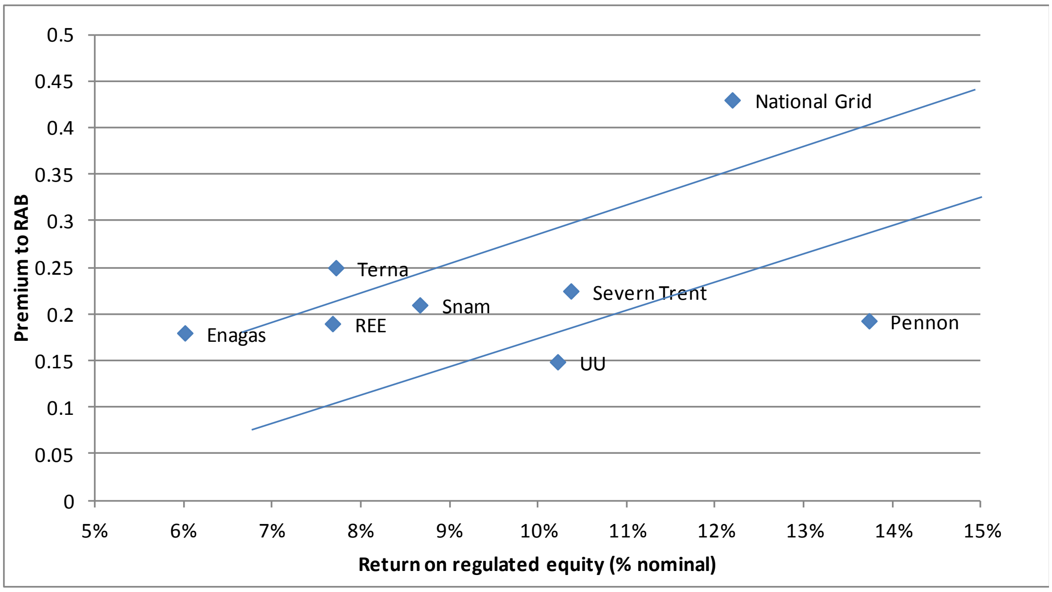
Water stock summaries

Fig 1

Stock	Pennon Group	Severn Trent	United Utilities	National Grid			Snam Rete Gas	Terna	Red Electrica	Enagas
				Group	**UK**	**US**	**Group**			
Premium to RAB valuation	**19.3%**	**22.5%**	**14.9%**	**43.0%**			**21.0%**	**25.0%**	**19.0%**	**18%**
Dividend yield	3.8%	4.0%	4.1%	4.6%			5.10%	4.20%	4.60%	5.30%
Dividend policy	RPI+4% through to 2020	At least in line with RPI to 2020	At least in line with RPI to 2020	At least in line with RPI			Flat	Flat	7% CAGR	4% CAGR
TSR annual return through 2020	11.0%	5.0%	8.0%	5.0%			6.0%	3.0%	4.0%	5%
RAB December 2015/March 2016	3,120	7,786	10,415	39,616	25,624	13,992	25,122	13,796	13,434	7,705
RAB December 2019/March 2020	3,486	9,265	11,248	47,290	28,851	18,436	23,429	12,991	13,773	6,888
Growth in RAB 2015-20	11.7%	19.0%	8.0%	19.4%	12.6%	31.8%	-6.7%	-5.8%	2.5%	-10.6%
Status of review	Fast track	Slow track	Slow track							
Next review	March 2020	March 2020	March 2020		March 2021 UK	Mass Elec and KEDLI in review Nominal terms	Next year	Jan-19	Jan-19	Jan-20
Baseline RORE real	**6.00%**	**5.85%**	**5.85%**	**8.0%**	**6.9%**	**10.00%**	**4.1%**	**3.9%**	**3.38%**	**2.32%**
Allowed leverage	62.0%	62.0%	62.0%	57.9%	62.2%	50.0%	44.4%	44.4%		
Allowed cost of debt real	2.75%	2.60%	2.60%	1.6%	2.4%					
Totex outperformance allowance	2.2%	0.6%	0.0%	0.6%	2.0%	-2.0%			0.8%	
ODI outperformance	0.3%	0.8%	0.0%	0.7%	1.0%					
Financing outperformance (debt/leverage)	2.7%	0.7%	1.9%	1.4%	1.0%	2.0%	0.6%	0.6%	2.0%	2.2%
							2.5%	1.7%		
Total achieved real returns	**11.2%**	**7.9%**	**7.7%**	**10.6%**	**10.9%**	**10.0%**	**7.2%**	**6.2%**	**6.2%**	**4.5%**
RPI	2.5%	2.5%	2.5%	1.6%	2.5%		1.5%	1.5%	1.5%	1.5%
Nominal RORE	**13.7%**	**10.4%**	**10.2%**	**12.2%**	**13.4%**	**10.0%**	**8.7%**	**7.7%**	**7.7%**	**6.0%**

Source: Macquarie Research, January 2016

Fig 2 On a European comparison, UK water



Source:

Appendices

Specific questions from Ofwat

Sludge p.47-48 (Q1-Q6)

Q1 Do you agree with our proposal to have one separate binding price control for sludge treatment, transport and disposal?

A1 Yes. we would caution our concern of potential stranding in sludge. There appears to be economy of scales in sludge, and Ofwat wants to incentivise rationalisation of these as assets. Our concern will be that there will be RCV sludge assets that will be physically stranded, offset by increased costs on shared facilities. In the 2025 review, what clarity will there be on the treatment of this opex, and how will customers in potential differing areas pay for the 'stranded' sludge asset – will this be spread over differing areas? Also will there be gaming of this, whereby wastewater companies shift all their operations to new competitive assets and leave stranded RCV to be socialised into their network tariffs?

Q2 Do you agree with our proposal to make a range of cost, price, capacity and location information available to facilitate the identification of trades? Do you agree that the data should be published on a STC (Sludge treatment Centres) and STW (Sewage Treatment Works) site level? Do you agree that the data should be published annually? Do you agree with the categories of data that we are proposing are necessary and appropriate, as illustrated in the tables? Are any missing?

A2. Annual data is probably ok, and yes.

Q3 Do you agree that the information should also contain details of 'bids' in from third party providers, and that there should be guidelines for ensuring that such bids are assessed on a level playing field basis?

A3. Yes, a free market only works with symmetry of information.

Q4 Do you agree that the data should be made available centrally through some form of information platform? Do you have any views as to how this might best be managed?

A4. As long as information is consistent and available does not need to be centrally managed. However, it would make life easier for market participants to have a consistent database.

Q5 Do you agree with our proposals not to make any changes to the status quo in relation to system operation activities?

A5. Yes.

Q6 Do you agree with our proposals not to have any specific financial incentives to support trading in relation to sludge at this time?

A6. This is an immature market at present, and specifics may cause market distortions.

Water resources p.61 (Q7-Q11)

Q7 Do you agree with our proposal to have a separate binding price control for water resources?

A7. Yes.

Q8 Do you agree with our proposal to implement an offset mechanism to ensure that entrants can recover the cost of new resources appropriately, while also ensuring that prices reflect average costs?

A8. Overall, we see competitive processes able to provide cheaper water resource through innovation. New water resource development is not the only way to access water, it can also come from i) marginal water within existing assets ii) demand side management, iii) imports and iv) re-use/recycling of wastewater.

We see most commodity markets being set by marginal costs, rather than average cost. For a marginal market to be set up and to work we would expect to see a lower water price for existing assets than that needed to recover an economic return on RCV. Our view is that returns in marginal-cost based markets rarely meet the overall cost of capital and without return protection this increased risk on long life assets could lead to a capital strike.

We see a **single buyer model covering all water in the water resource area** as being the simplest model that, maybe combined as (independent) MO/SO role can also set overall demand requirements (based on a business as usual) with then instruct water merit orders with the various sources of water costs.

1) We struggle to see long term contracts being struck between capital-intensive water resources and new entry retailers which will probably have low credit ratings. If these offtakers go bust then the new water resource developer may find itself stranded.
2) We would also caution that customers will ultimately still bear the cost of white elephant projects if the MO/SO contracts for a long time on a new water resource that in time is not needed (e.g. demand does not rise as expected), particularly if an incumbent asset is built.
3) We also see the scope for 'gaming' the system if water can be sold on bilateral agreements to competitive retail segments (and household retail maybe?). This volume could see volume demand reduced from incumbent resources. This would mean in the next review the average tariffs would be increased, to cover the cost of stranding. Net-net the incumbent would be better off with no loss of value in their ring-fenced RCV, but with extra income from their competitive water sales.

Q9 Do you agree with our proposals to create a market information database and bid assessment framework to allow for the 'bidding in' of third party resource options on an ongoing basis – as set out in the Deloitte report?

A9. Yes.

Q10 Do you agree that a third party organisation may be best placed to manage the information database?

A10. Not necessarily as long as Chinese-walled from other operations. Water companies are probably best placed to collate information about water resources in area, demand profiles, leakage rates etc

Q11 Do you agree that measures should be introduced to increase transparency and certainty around security of supply for water trading? How can this objective best be achieved?

A11. Yes. There almost certainly needs to be 'insurance' resource allocation involved in securing water resources. Investors are acutely aware of political pressure on regulated investments, and a 'water-resource shortfall' will increase further negative political interference.

RCV allocation p.69 (Q12-Q14)

Q12 Do you agree with our rationale for allocating the RCV?

A12. As long as the numbers are protected investors would remain pretty ambivalent…. But overall we would assume a higher cost of capital in RCV provided to sludge and water resources than remains within the networks (chance of stranding, uncertain regulatory evolution, no history), and therefore overall would prefer to see as low a number as possible transferred.

Q13 Do you agree with our proposed approach for allocating the RCV for sludge?

A13. In sludge, whilst we see the MEA level as providing a competitive pricing signal, we would assume that rationalisation will only happen in a marginal cost advantage basis, as capital costs are sunk. We see limited behavioural change regardless of the MEA level used.

Q14 Do you agree with our proposed approach for allocating the RCV for water resources?

A14. In water resources, the RCV transferred is lower than MEA, and therefore it seems to us fairly arbitrary to the allocation of RCV into water resources. Overall we feel less comfortable with the high RCV transfer of United Utilities, compared to other water companies. We would prefer to see a normalisation of RCV transfer. We would see the sale of water resource assets above RCV, and associated value share with customers, as positive for both investors and customers. The higher the level is set before there is a positive value to investors, the less likely it is to happen.

RCV protection p.74 (Q15-Q17)

Q15 Do you agree with our proposal to address stranded asset risks by extending our commitment to protect efficient investment included in the RCV to 31 March 2020?

A15. Yes – and it is critical to investor confidence.

Q16 Do you agree with our assessment that there is no prospect for stranded assets due to the proposed form of control for sludge and water resources for the 2020-25 period?

A16. Water resources with a 'true-up' should see negligible stranded asset risk. We have concerns that there may be volume risks in sludge, and our greater concern is post 2025. If there is an incentive to rationalise sludge assets between 2020-25, how will ring-fenced 'physically stranded' assets be treated? and how will these legacy costs and benefits be spread between incumbents and new entrants?

Q17 Do you agree with our proposed approach of an income guarantee recovered through the network plus control for protection against the risk of stranding, if a mechanism is required? How do you consider that such a mechanism could be designed to provide a simple, transparent, largely ex ante mechanism that preserves incentives for efficiency?

A17. We agree that socialisation needs to be via the networks themselves. If recovery is put through networks, then why have a high RCV allocation to these assets exposed to competition?

Access pricing p.82 (Q18-Q23)

Q18 In relation to water resources, do you agree with our proposals to implement an approach based on the average cost of providing 'network plus' activities?

A18. Yes.

Q19 In relation to access prices for water resources, do you agree with our proposal that companies should be responsible for calculating and publishing these? Do you agree they should be published by water resource zone, with network distribution and treatment costs separately identified?

A19. It makes sense to have water resource market operation/system operation If these zones become the markets, then information should be published within these zones.

Q20 In relation to water resources, do you agree with our proposals to implement a mechanism that offsets the difference between the LRIC (or potentially the AIC in the absence of LRIC data) of new resource and the prevailing average cost of resource?

A20. Yes – but as above – we see 'leakage', no pun intended, of this water through bilateral agreements between 'new' water resources and competitive retail. As water is fungible, and there will be new water resources required with reductions elsewhere providing a net number, how will Ofwat and/or companies distinguish between incremental new, and existing, demand? We see water siphoned off to competitive retail reducing the volumes in the AIC and therefore increasing tariffs.

Q21 Do you further agree that it is the incumbent's, rather than the entrant's LRIC, that should form the basis of the payment, to provide a stronger incentive for entry?

A21. How confident that it is the incumbent will be higher? We would not be surprised through existing assets can be far more efficient.

Q22 In relation to sludge, do you agree that price and non-price terms should be the outcome of commercial negotiation, supported by the cost or price and capacity information previously set out?

A22. Yes – but the complications arise in 2025 in our view when the incumbent assets need to be re-assessed and the competitive new assets are also included.

Q23 Do you support our proposals to develop high-level guidelines as to how rival offers in relation to sludge treatment, transport and disposal should be evaluated?

A23. Yes, subject to excessive cost involved in obtaining this.

Direct procurement p.84 (Q24-Q25)

Q24 Do you agree with our proposals relating to the use of direct procurement on behalf of customers?

A24. Structurally we see larger projects that do not impact operation of overall networks being tendered out as positive. Similar to the strategic wider works in power transmission and Thames Tideway, we see this providing low cost pricing points for large discrete projects. However we would caution that we could see unintended consequences if companies seek to provide projects below the threshold, or the complexity in tendering for these projects outweighs the benefits to consumers.

Q25 Do you have any views on our specific proposal to set a £100 million threshold above which point we would expect companies to procure at market on a standalone basis?

A25. We see £100mn projects would have affected 16 projects in the current AMP, with a total of £2bn investment. If there are a minimum of 5 parties bidding on each project, at £2mn cost per bid, then we would believe that the cost of tendering at £10mn, or 10% of a £100mn project. Is Ofwat confident that tendering could improve efficiency by greater than 10%?

Form and type of controls p.94 (Q26-Q30)

Q26 Do you agree that our proposal for four binding wholesale price controls should apply to companies whose area is wholly or mainly in Wales, as well as to companies whose area is wholly or mainly in England?

A26. Yes, as a price discovery and adding to benchmarking analysis.

Q27 Do you agree with our initial view that the network plus controls for water and wastewater and the water resources controls should be total revenue controls?

A27. Yes – although rate controls for sludge does add risk.

Q28 Do you agree that future investment in relation to sludge treatment, transport and disposal should be exposed to volume risk and, accordingly, what are your views regarding the appropriate form of control in this area?

A28. We would be interested to see if volumes can be attracted in from non-wastewater industries. Overall, though as long as existing assets have RCV ring-fencing from 2020, we see downside protection – whether this decreases, or increases competitive tension will be determined by the incentives available. A defensive strategy will see no value downside, but with no growth, and an offensive strategy should be designed to ensure benefits are spread between investors and customers. Otherwise we would expect limited competition.

Q29 In your view, how should new investments be remunerated in the sludge and water resources controls from 2020?

A29. Investors in the sector enjoy the simplicity of an RCV. We see in a truly competitive market that the cost of capital on an RCV is lower than on a contracted asset – which should mean incumbents on a like-for-like competition will have an advantage over new entrants (unless new water resources fall into third party procurement issues). However, if innovation is required, we would argue that companies could, and should, achieve supernormal returns if their solution was significantly more economic than the 'price setting' alternative. How can this supernormal return be incorporated into an RCV?

Sludge appears to be heading down a competitive tariff route. An RCV, again, would be welcomed by investors, but the description by Ofwat of the evolution of the market appears to favour a bilateral contract route between these asset providers and wholesale wastewater.

Q30 How can we best ensure that long-term contracting arrangements are not dis-incentivised – and that any continued application of a return on RCV approach for incumbents is on a level playing field with third party providers?

A30. On an existing asset basis, we see limited competition if new entrant costs are not below the marginal cost of the incumbents. We only see the real advantages of competition on new incremental assets.

Future price control indexation p.128 (Q39-Q43)

Q39 Do you agree with our proposal to move to CPI (subject to the UKSA's final recommendations)?

A39. As long as NPV neutral. This is the million dollar question. As long as the NPV is neutral.

Q40 Do you agree with our proposal to implement a CPI based approach, for both revenues (prices) and the RCV, subject to a transition process?

A40.As long as NPV neutral, the PAYG lever should allow cashflows to be matched to company requirements. We would highlight that Ofwat is suggesting a fixed RPI estimate for 50% of the RCV over the 5 years with a true-up at the end to ensure actual RPI and expected RPI match. We could see something similar with a CPI number throughout the whole 5 years, with an expected RPI-CPI spread, which could see a true-up in 2025.

Q41 Do you agree with our proposal to transition to CPI over time, both in terms of the overall method and the specific proportions of the RCV we are suggesting would remain indexed by RPI?

A41. There is more than one way to fix this. We would agree that the high levels of RPI indexed debt will cause investors worry over the long term if these diverge from cash-flow and asset profiles. Again as long as there is NPV neutrality and PAYG flexibility then these worries should be mitigated. Every company has differing RCV growth and debt profiles. we believe that there may be a 2004-style financeability may need to be introduced to compensate companies if profiles differ going forward.

Q42 Do you agree with our commitment to ensuring that any such change is value and bill neutral in NPV terms over time in nominal terms? What steps could be taken to make this commitment as credible as possible?

A42. This is critical to investor confidence in the sector. Until there are CPI indexed risk free instruments, we see WACC calculations still based on RPI, with a CPI to RPI translation. A true-up on this spread in 2025 might provide investor confidence. However Ofwat believe there is a supply and demand chicken and egg issue here, and if broken (Treasury) then this point will become increasingly less relevant.

Q43 Do you agree that we should calculate the RPI linked element of the RCV based on forecast RPI with a true up at the end of the period to protect companies from changes in the difference between RPI and CPI over the control period?

A43. Fixing RPI through the five year period will decrease bill volatility, and if the true up is through RCV then it'll smooth bills thereafter as well. However, if RPI rises significantly higher than the estimated level, then we could see interest cover costs fall (and vice versa) – and there may need to be a 'safety net' requirement in case of extreme inflation moves.

Balance and level of risk p.141 (Q44-Q45)

Q44 To what extent does the current balance of risk and opportunities vary across the proposed wholesale controls and how does this impact on the cost of capital?

A44. It is a universal truth that investors want as high a return as possible with the lowest level of risk. Risks rise with complexity, uncertainty and lack of historical precedence. We cannot see a reduced cost of capital on these proposals, as they are complex, uncertain and it doesn't have a history. Ofwat need to be sure that the increased cost of capital is offset by advantages elsewhere.

We find comfort that c.100% of the current wholesale assets will still be covered by an RC in 2020, and we would expect it to remain close to 100% in 2025 if water resources remain within an RCV framework and we see sludge assets trenging to MEA levels of overall RCV (c.5%).

We would highlight that water companies are typically quite small, and the time and effort in analysing them has increased significantly. We would expect to see reduced risk and increased diversity if companies were to expand and we believe that the problems faced by the industry, and the significant economies of scale in sludge and water resources suggested by Ofwat in their detailed design documents should lead to mergers. We believe Ofwat should encourage companies to explore these options.

Q45 To what extent would our proposed market and incentive reforms impact on the balance of risk and opportunities and the cost of capital and would this vary across the proposed wholesale controls?

A45. Yes we see differing cost of capitals across the assets. we see infrastructure having the lowest, followed by water resources, sludge assets the highest of the wholesale assets. We see retail costs of capital being nearly 2x that of wholesale.

Draft impact assessment, Appendix 6, p.3 (Q1-Q4)

Q46 Do you agree with the benefit and cost impact categories we have identified?

A46. Broadly.

Q47 Are there any impact categories you think we have not included that are relevant, or any we have included that should be omitted?

Q48 What are your views on the indicative scale of the impacts we have identified?

A48. With an RCV of c.£60bn, every 1% change in cost of capital would add £600mn to bills annually – which dwarfs any NPV of reforms. We would caution that any development Ofwat decides upon, that investor confidence is maintained.

Q49 Are you able to provide any evidence on any of the impacts in relation to our proposals

A49. Yes.

Point 1

1. Please provide a Bullet Point using the Bullet Points icon on the Ribbon above

Point 2

1. Please provide a Bullet Point using the Bullet Points icon on the Ribbon above

Point 3

2. Please provide a Bullet Point using the Bullet Points icon on the Ribbon above

Important disclosures:

Recommendation definitions

Macquarie - Australia/New Zealand
Outperform – return >3% in excess of benchmark return
Neutral – return within 3% of benchmark return
Underperform – return >3% below benchmark return

Benchmark return is determined by long term nominal GDP growth plus 12 month forward market dividend yield

Macquarie – Asia/Europe
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie – South Africa
Outperform – expected return >+10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie - Canada
Outperform – return >5% in excess of benchmark return
Neutral – return within 5% of benchmark return
Underperform – return >5% below benchmark return

Macquarie - USA
Outperform (Buy) – return >5% in excess of Russell 3000 index return
Neutral (Hold) – return within 5% of Russell 3000 index return
Underperform (Sell)– return >5% below Russell 3000 index return

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to Asia/Australian/NZ/Canada stocks only

Recommendations – 12 months
Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 31 December 2015

	AU/NZ	Asia	RSA	USA	CA	EUR	
Outperform	50.68%	61.04%	53.16%	47.90%	65.22%	43.59%	(for global coverage by Macquarie, 5.33% of stocks followed are investment banking clients)
Neutral	31.51%	24.66%	34.18%	47.70%	29.71%	34.62%	(for global coverage by Macquarie, 5.02% of stocks followed are investment banking clients)
Underperform	17.81%	14.30%	12.66%	4.39%	5.07%	21.79%	(for global coverage by Macquarie, 3.78% of stocks followed are investment banking clients)

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