Independent Research Positioning Paper

The Future of Smaller Company Research

Equity Research Services

31 January 2018

Scope

This report sets out RaaS Advisory's views on the future of small-cap and micro-cap equities research, the demand for changing roles in the market and some thoughts about the importance of independence in the research process.

Executive Summary

Sell- side research is entering uncharted waters. In Europe, for the first time, research will have to be priced separately to execution. The changes being wrought by MiFID II will make their way to Australia either through formal regulatory adoption or requirements by global asset managers to adapt to the changes. Locally, ASIC has released new regulatory guides for analysts dealing with material non-public information and the separation of research from corporate advisory in pre-IPO preparation. Investment banks have until July 1 2018 to put ASIC's guidelines in place.

The changes will almost certainly lead to further diminution of sell side research, particularly smaller company research, at investment banks, creating an even bigger gap for retail and wholesale investors on a key part of the market. However, we do see new opportunities opening up for exchange-funded research and company sponsored research. Some of the trends we see emerging include:

- Brokers offering subscription access for research;
- Asset managers increasing the size and scope of in-house research;
- Asset managers pooling their earnings estimates (in a closed circuit) to determine consensus;
- More pressure on exchanges to broaden and deliver exchange-funded research schemes;
- Increased company-sponsored research.

About RaaS

RaaS Advisory was established in late 2016 by highly experienced equity analysts to focus on the increasing void in smaller company research. Changing economics and regulations in stockbroking research has resulted in ever diminishing coverage of companies outside the ASX200 and NZX50.

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Emerging valuation void for smaller companies

The shape of equities research is changing. Sweeping reforms in the European Union to the way in which asset managers pay for sell-side research and a new regulatory guide for sell-side research by the Australian Securities & Investments Commission (ASIC) will add further pressure to research budgets, already stretched by the marked decline in brokerage income in the past several years. Smaller companies, in particular, will find it increasingly difficult to attract research coverage from traditional brokers, as brokerage and sell-side panel commissions shrink and regulatory limits become more stringent. We are of the view that there will be new models to help fill this void, with varying degrees of success.

Australian equities research is facing key regulatory changes in 2018. From January 3, 2018, wide-ranging regulatory changes in the European Union, named the Markets in Financial Instruments Directive II or MiFID II, will require the cost of sell-side research acquired by investment managers to be unbundled from execution and paid for out of asset manager's budgets, instead of being a cost borne by the funds. Fund managers operating global funds are likely, for administrative reasons, to adopt MiFID II across all funds rather than operate under a number of models.

Locally, in December 2017, ASIC released Regulatory Guide 264 which focused on how sell-side research should manage inside information and conflicts of interest, particularly in the capital raising process. The guide's recommendations are designed to further separate research from corporate advisory. In our view, these regulatory changes will force change in the both the way in which equities research is generated and remunerated and deliver new models to the system. Some of the key trends we see emerging include:

- Brokers will be increasingly forced to price research separately from execution and corporate activity and therefore will explore new avenues for revenue generation from research;
- Commission pools will almost certainly decline further, putting pressure on investment banks to reduce research teams;
- Sell-side analysts will find it harder to justify initiating on a stock unless it is in the ASX200 (thereby having the liquidity and market capitalisation to attract institutional investors) or offers potential for corporate activity;
- Asset managers, particularly those who need to be MiFID II compliant, will increase their in-house research capabilities;
- Asset managers will explore new ways to pool their earnings estimates on small, under-researched companies and may eventually fund "deep dive" value adding research,
- There will be more pressure from companies on stock exchanges to facilitate the provision of research;
- Smaller companies will look to sponsor their own research either through a broker or an independent research house but will need to look to the quality of their research provider to achieve the greatest attention from institutional investors.

Background to equity research changes

Sell side equities research has traditionally targeted asset managers as their clients. The structure of the sector was shaped by US Securities legislation introduced in the 1930s.

The US Securities Exchange Act 1934 allowed asset managers to purchase both brokerage services (execution) and research without breaching their fiduciary obligations. This created an incentive for asset managers to purchase research externally rather than create an internal cost centre and thus formed the structure of the industry globally as it operates today.

A report released in 2016 by UK independent research group Edison Investment Research, Bloomberg Intelligence and Frost Consulting[1] estimates that asset manager margins would decline 50% if they were to absorb the US$5bn spent by investment banks each year in delivering equity research.

In Australia, traditionally research accounted for one-third of a "bulge bracket" broker's panel commissions from asset managers and underpinned the growth in the investment banking research teams until the global financial crisis in 2008/9. Under MiFID II, panel commissions would need to exclude research.

Your authors were both members of one of these teams which at the peak of the market had 250 companies under coverage. Today, the same firm has a much smaller research team and covers around half the number of companies.

EU Regulatory changes

From January 3, 2018, market participants will need to abide by the new regulations set down in the EU's Markets in Financial Instruments Directive II. The high-level goals of MiFID II are:

- Increased transparency of market
- A shift in trading towards more structured marketplaces
- Lower cost market data
- Improved best execution
- Orderly trading behaviour within markets
- More explicit costs of trading and investing

For research, this means that fund managers will have to tell clients how much they pay for research which they had previously received for free in return for trading execution. Under the traditional broking model, EU fund managers will now have to pay for research from their own P&L rather than as part of their brokerage arrangements (which were charged to the fund). While Australia and New Zealand are not part of the EU, fund managers operating global funds are likely, for administrative reasons, to adopt MiFID II across all funds rather than operate under a number of models. This means that, regardless of whether the MiFID II regulations are adopted formally in Australia and New Zealand, they are likely to influence the way in which equities research is paid for in the future.

As a result, we expect new models to emerge including asset managers bringing research in-house and paying for research from traditional and new sources.

1 The Future of Equity Research, October 2016, Edison Investment Research, Bloomberg Intelligence, Frost Consulting, page 14

For traditional sell-side brokers, the changes will likely force them to look at their offering to the market. The reality is that it is very difficult for equity research analysts to produce original insights when there are 10-12 research analysts writing up the same reports. Only a fraction of what hits a fund manager's in-box is read, so getting fund managers to pay for something that is now provided free and is not used will be mission impossible. Frost Consulting research[2] shows that research budgets in the major investment banks have almost halved in the last eight years from US$8.2b to US$4b while commissions have declined in the same manner. Surveys of investors show that they are less interested in researcher's exact forecasts than they are in industry and peer analysis.

In November 2017, the London-based CFA Institute in a survey of its members (365 valid responses) found that 44% of fund managers expected to spend more on internal research resources and as a consequence would cut spending from other sources. Sell-side research was most in the firing line with 78%of respondents expecting to spend less on broker research and only 4% would spend more following the introduction of MiFID II. Independent research providers can expect a mixed response from asset managers with 37% of respondents expecting to cut their expenditure but 20% expecting to increase their budgets on independent research. Similarly, 34% of respondents said they would reduce budgets with other third party research sources while only 8% said they would increase their spend.

ASIC Regulatory Guide

In December 2017, ASIC released regulatory guidance on managing conflicts of interest and handling inside information by Australian financial services (AFS) licensees that provide sell-side research. The guide was in response to ASIC observing some poor and inconsistent practices in the way AFS licensees handled material, non-public information particularly in valuation reports in the lead up to or accompanying prospectuses for initial public offerings.

Regulatory Guide 264 Sell-side research (RG 264) looks at the key stages of a capital raising transaction and provides specific guidelines on how an AFS licensee should appropriately manage conflicts of interest during each of these stages, including the preparation and production of research reports. RG 264 also provides general guidance for AFS licensees on the identification and handling of inside information by research analysts, and about the structure and funding of sell-side research teams.

AFS licensees have until June 1 2018 to comply with the new guidelines.

2 The Future of Equity Research, October 2016, Edison Investment Research, Bloomberg Intelligence, Frost Consulting, page 24

Emerging trends

We see several trends emerging from the regulatory changes coming to equities research and set these out below.

Pressure on brokers to price research separately

Under the MiFID II regime, brokers will be required to put a price on research separate to their execution functions and this is expected to be closely scrutinised regardless of whether the research is paid for from an asset managers' P&L or from a specific research account. We anticipate that this will force brokers to examine their research offerings and profitability as stand-alone entities. We see a number of scenarios emerging:

- A decline in the number of analysts covering any one stock meaning that consensus will be drawn from fewer estimates and are therefore likely to exhibit greater dispersion from actual results;
- Global banks are likely to be the only banks with the capacity to offer broad-based coverage of the top 200 stocks;
- Some firms may opt to focus on in-depth reports, potentially securing commissions for this work;
- Some may focus on specific sectors or areas where they have unique expertise;
- At least one Australian bulge-bracket broker is reported to be considering a subscription service to its research.

We expect the "me too" approach of the research offering from traditional brokers to come to an end. There will be no place for 12-20 reports on the same 100 companies in the Australian market.

Overall payments made for sell-side research services will decline further

The London-based CFA Society's survey of its members in 2014[3] found that 59.9% of asset manager respondents expected commission spend to go down if sell- side houses priced research. Similarly, a report by McKinsey released in June 2017[4] highlighted a consensus scenario estimating that commission pools would decline by 30% as transparency on pricing becomes more prevalent.

Concentration of research on the ASX200

As we note above, we expect research to become more rather than less concentrated on the ASX200 where there is sufficient liquidity for brokers to generate brokerage income. The World Federation of Exchanges estimates that 35-40% of all publicly-traded equities have no research coverage. This is a reflection that there still is a significant concentration of analyst coverage towards the more liquid securities.

In Australia, the number of companies with no research coverage is higher. Of the 2,100 companies on the ASX, around 1,600 companies remain uncovered. Many of these are in the long tail – companies with a market capitalisation of $50m or less. Similarly in New Zealand, of the 180 stocks listed on the NZX, few outside the top 50 are covered by the traditional sell-side

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3 *CFA Society of the United Kingdom Response to CP13/17*, 24 February 2014

4 *Reinventing equity research as a profit-making business*, By Daniele Chiarella, Jonathan Klein, Matthieu Lemerle, and Roger Rudisuli, McKinsey, June 2017

investment firms and this is before the expected further decline in the size of sell-side research teams.

Asset managers will boost internal research capabilities

There is evidence that this trend is already taking place in Europe and here in Australia. As we cited earlier, the CFA Institute's survey of its members late in 2017 found that 44% of fund managers expected to spend more on internal research resources and as a consequence would cut spending from other sources. In Australia, we have already seen research teams boosted at several funds management firms including Colonial First State and Australian Super. Asset manager internal research will be 'in house' and will not be available to a wider audience. It is also unlikely that asset manager internal research teams will focus on broadening coverage to include a wide selection of small-mid cap companies.

Asset managers could pool earnings estimates

The lack of earnings estimates at the small end of the market has been an ongoing issue for asset managers and will only be exacerbated by MiFID II. We understand that asset managers have had some early discussions on whether they should pool their analysts' estimates at the smaller end of the market. Again this information will be confined to asset manager participants and will not be available to the general market.

Pressure on stock exchanges to facilitate research

There was a flurry of exchange sponsored schemes around the time of the Global Financial Crisis (GFC) in a response to falling trading volumes and a sharp curtailment of broker research as investment banks and brokers relegated research to a 'cost centre' and began in earnest to reduce costs.

There are four current equity research schemes that are exchange funded:

- NASDAQ – one page quantitative report prepared by Morningstar/Zack Investment Research for all companies
- NYSE- EuroNext – one page quantitative report prepared by Morningstar for all companies
- Deutsche Borse Equity Research Scheme commenced in March 2017 – qualitative research to be provided by Edison and quantitative research to be provided by Morningstar. The cost and the payer has not been disclosed but the research is mandatory for all listings so we assume that Deutsche Borse funds or subsidises
- ASX Equity Research Scheme has been in place since the 2012-2013 successful trial. The scheme is restricted to market participants and the exchange currently pays providers an average of $15,000 for the first year of coverage and $10,000 for the second. The reports written for retail investors do not have to include forecasts, target prices or recommendations however, most brokers writing the research write full research reports with forecasts, target prices and recommendations.

Of the four exchange-funded equity research schemes two are one page quantitative summaries, one is a hybrid with qualitative by one provider and a standard quantitative (one page of facts and figures) analysis from the other provider. The remaining scheme (ASX) provides funding for fully fledged equity research reports. There are three equity research schemes that are funded by the issuer companies:

- Singapore Stock Exchange StockFacts Research – trial underway for research reports without forecasts, price targets or recommendations to be paid for by the issuer companies;
- Tel Aviv Stock Exchange research scheme to encourage investment in technology and bio technology companies – full research reports with US$20,000 pa subsidy available for smaller companies. Average annual research report cost of US$45,000
- Bursa Malaysia – full research reports to be prepared by brokers with a 50% government subsidy.

Separately, the National Stock Exchange of Australia is also undertaking an exchange-funded trial with RaaS Advisory to produce one-page quantitative summaries of all new companies listing on the bourse in 2017/2018.

We set out the Exchange sponsored research scheme details in the following Exhibit.

Exhibit 1: Global Equity Research Schemes – Stock Exchange Sponsored

Exchange/Scheme	Period	All listing	$	Funding pa	Paid by	Provider	MP only*	Forecast	Target Price	Recommendation
Singapore /Scheme 1	2003-08	No	S$	13,000 each	Company	Brokers	Yes	Yes	Yes	Yes
NASDAQ	2004-2008	No	US$	Unknown	Company	JV Reuters	No	Yes	Yes	Yes
Bursa Malaysia/Scheme 1	2005-2016	No	RM	15,000 each	Company ***	Brokers	Yes	Yes	Yes	Yes
NASDAQ	2009 - current	Yes	US$	Unknown	Exchange	Morningstar/ Zachs Invest Research	No	No	No	No
Singapore /Scheme 2	2009-16	No	S$	15,000 each	Company	S&P, DnB Nor	No	Yes	No	No
NYSE Euronext	2009-unknown	No	US$	Unknown	Company	Vitua Research	No	Yes	Yes	No
LSE and AIM	2009-unknown	No	£	10,000 each	Company	PSQ Analytics	No	Yes	Yes	No
ASX/Trial	2012-13	No	A$	1,000,000	Exchange	~10 brokers	Yes	Yes	Yes **	Yes **
ASX/Year 1	2013-14	No	A$	1,000,000	Exchange	~10 brokers	Yes	Yes	Yes **	Yes **
NYSE Euronext	2014 - current	Yes	US$	Unknown	Exchange	Morningstar	No	No	No	No
ASX/Year 2	2014-15	No	A$	500,000	Exchange	~10 brokers	Yes	Yes	Yes **	Yes **
ASX/Year 3	2015-16	No	A$	500,000	Exchange	~10 brokers	Yes	Yes	Yes **	Yes **
NZX - NXT market	2015-2017	Yes	NZ$	22,500 each	Exchange	Edison	No	No	No	No
ASX/Year 4	2016-17	No	A$	1,000,000	Exchange	~10 brokers	Yes	Yes	Yes **	Yes **
Singapore/Stockfacts Research	2016-17	No	S$	10,000 each	Company	Edison +3 others	No	Yes	No	No
Tel Aviv Stock Exchange/Tech	2016-current	No	US$	45,000 each	Company ***	Frost, Edison	No	Yes	Yes	Yes
Bursa Malaysia/Scheme 2	2017-current	No	RM	Unknown	Company ***	Brokers	Yes	Yes	Yes	Yes
Deutsche Borse	2017*current	Yes	€	Unknown	Unknown	Edison/Morningstar ****	No	No	No	No
ASX/Year 5	2017-18	No	A$	1,000,000	Exchange	~10 brokers	Yes	Yes	Yes **	Yes **

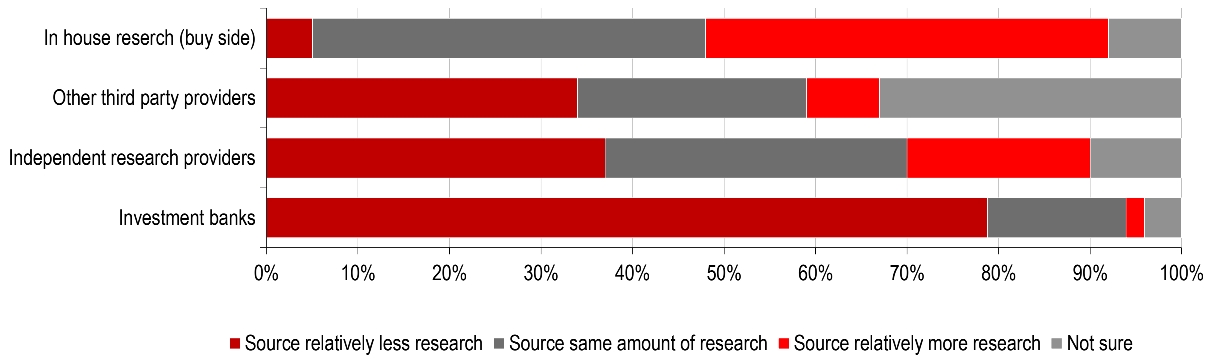
Source: Various Stock Exchange websites; MP* = Market Providers, Yes** = ASX research scheme did not require target priced or recommendations for the retail research reports, Company *** = part sponsored by government /exchange, Edison/Morningstar **** = Qualitative done by Edison, Quantitative by Morningstar.

Increase in independent research

There are varying views on who will pay for independent research. The Edison report of 2016 argues that asset managers given greater choice on research sources, will spend more with independent research providers. We note that this view was not backed up with user survey data.

The CFA Institute's survey[5] of members in late 2017, however, found that more funds expected to reduce their expenditure with independent research providers than increase it as the following exhibit sets out. It is worth noting that this is feedback from participants in a market which more readily accepts and uses independent research. We would warrant that Australian and New Zealand asset managers would be even less inclined to pay for research from independent providers. There are exceptions to this. Fund managers have historically paid for research from independent resources sector specialists and biotech specialists and for the occasional commissioned deep dive report.

Exhibit 2: CFA Institute survey responses on expenditure expectations for research in a MiFID II world



Source: MiFID II A new paradigm for investment research, CFA Institute, 2017

In our view, however, in the absence of Exchange sponsored research schemes company-sponsored research will be the most likely form of independent research to emerge in this market in the post-MiFID II environment. This will be driven by companies seeking to provide the marketplace with information to assist it to form a view on value and price of the company's shares. There are already a number of independent research providers in the Australian and New Zealand market and we anticipate that with further declines in sell-side research, especially at the small-cap and micro-cap end of the market, more independent research providers will enter the market.

Establishing Independence

In this changing research environment, many smaller companies will need to find a way to raise their profile with asset managers and the most logical way to do this is to sponsor research coverage. It will be crucial for the research report's credibility to ensure that any independent research provider used is truly independent.

Paid-for research does attract an element of scepticism from asset managers who rightly question whether an independent provider would express a negative view on management or put a "sell" recommendation or come up with a valuation lower than the current share price on a company which is funding the research report.

RaaS Advisory cannot speak for other "independent" research providers but sets out the following codes and parameters for both choosing the companies it works with:

- Demonstrated revenue model, cash generation and earnings growth or on the cusp of doing so;

5 MiFID II: A new paradigm for investment research, CFA Institute, 2017

- Demonstrated Return on Capital Employed (ROCE) or a believable plan to achieve satisfactory returns;
- Best in class in an industry which may be out of favour;
- Where we identify a gap between current share price and the company's fundamental value;
- Quality of earnings and balance sheet;
- Management team with track record;
- Well credentialed board with a majority of non-executive directors and evidence of some previous public company board experience;
- Under-researched (covered by two or fewer brokers)
- Where we feel we can assist in introducing to the right institutional investors.

Our research focusses on providing valuation parameters rather than recommendations and price targets and to limit "wall crossing" our financial model parameters are based on publicly available information only. This helps minimise the risk of material non-public information making its way into our models or research.

Other ways we maintain our independence include:

- No share ownership of companies that are clients;
- No "wall crossing" in preparing a positioning paper/research report for publication;
- In the event that we are engaged to provide valuation services for a corporate transaction to existing research clients or non-research clients, we enter into strict non-disclosure agreements;
- Ceasing research contracts with any client who tries to influence or change the views expressed in our reports;
- RaaS does not have any executive function and is not aligned to any market participant or corporate advisory company;
- Our earnings estimates and reports are published widely and made available across the following platforms: Bloomberg, FactSet, Thomson Reuters.

APPENDIX A – Global Equity Research Schemes

Australian Stock Exchange (ASX)

The Equity Research Scheme began as a trial in July 2012 with funding provided by ASX of A$1m. The trial was in three parts:

- Companies capitalised between A$200m and A$1b which did not have adequate institution research coverage a standard institutional report that includes a formal recommendation to be provided by ASX participant that has an established institutional research function
- Companies capitalised at between $50m and $200m which do not have adequate retail coverage a standard research report with analysis and commentary
- For companies capitalised below $50 million (about 62 per cent of all ASX-listed companies) a fact note with information drawn from publicly available sources will be provided by an exclusive licensed research provider.

The trial for parts 1 and 2 were successful and the scheme has been renewed each year since 2012/13. The companies that are eligible for research coverage under the current scheme are those with a market capitalisation of A$30m to A$1b, covered by two or less ASX market participants with a free float of 10% or more, have been listed for more than six months and are not included in the ASX300. The annual funding of the scheme has varied between A$500,000 and A$1m. To date, ~210 companies have been covered by the scheme to varying degrees. The scheme is limited to ASX participants for a number of reasons including support for market makers, quality issues, branding and distribution. The broker reports are available for free (with registration) on the ASX website and are available on broker and at the discretion of the broker on company websites. Each year the ASX provides market participants with a list of companies that are eligible for research and market participants submit a list of preferred companies and pricing. The ASX has maintained its distinction between institutional and retail research reports but in practice there is very little difference between the report styles. Most market participants produce reports of similar quality and quantity regardless of market capitalisation. The tendered price per company varies from ~A$10,000 to ~A$40,000 with a mid-point on the range of A$15,000 to A$20,000 and most market participants seems to be awarded between 6 and 12 stocks each per annum. The research requirement is to produce one initiation style report and two updates per annum.

In the scheme trial we understand that Morningstar was awarded the contract for part 3 – the fact based sheet. However, for reasons that have not been disclosed this part of the scheme did not proceed.

The ASX has awarded 120 companies to be covered in FY17/18 from a list of around 450 companies it identified. As at the time of writing this report, around 55 of these companies had been covered by the participating brokers.

Bursa Malaysia

In 2005 Bursa Malaysia commenced offering a research scheme that was subsidised by the government for 50% of the total cost. The research scheme made provision for two research providers per company. During this period 303 listed companies and 21 research houses participated in the scheme. Research providers received RM15,000 (A$4,500) pa per company.

Exhibit 3: Bursa Malaysia – participants in equity research schemes

Details	Scheme 1	Scheme 2	Scheme 3
Participants	2005 to June 2007	July 2007 to Oct 2010	Oct 2010 to Dec 2013
Scheme 1 only	9		
Scheme 2 only		70	
Scheme 3 only			82
Schemes 1 and 2 only	240	240	
Schemes 2 and 3 only		71	71
Schemes 1 and 3 only			
All schemes	55	55	55
TOTAL	304	436	208

Source: Overview of Capital Market Development Fund - Bursa Research Scheme, Advanced Science Letters V21, 1477-1480, 2015

In May 2017 Bursa Malaysia announced a two-year mid and small cap research scheme (MidS) expected to cover 300 listed companies with a first stage target of 100 companies. Each selected company (selection based on market cap [Rm200m to RM2b], liquidity and free float {15%}, Research costs are to be funded by the Capital Market Development Fund. Reported funding for the Capital Market Development Fund is Rm75m (~NZ$24m)[6]. The scheme is aimed at increasing retail investors' participation in the stock market by providing research for companies that receive little or no research coverage.

Deutsche Borse

In March 2017 Deutsche Borse announced the creation of a new small and medium size enterprise segment to replace the Frankfurt Exchange's Entry Standard. Edison Investment Research has been engaged to write qualitative research with Morningstar providing quantitative reports. The reports will be mandatory for all issuers in the SME segment. No information has been released on the pricing of the research and on who will pay for the research. We assume that because the research is mandatory it is likely that the research charge will be incorporated in the listing fees.

LSE and AIM

In March 2009 the London Stock Exchange and AIM announced the formation of PSQ Analytics to commission high quality independent research from Argus Research (US), Independent International Research Plc (UK and no longer in business) and Pipal Research (Chicago, bought by Crisil in 2010). The scheme involved companies paying £10,000 for a research report including detailed fundamental research based on management interviews and site visits. The reports were to include forecasts but did not include recommendations.

NASDAQ

In 2004 NASDAQ launched its Independent Research Network (IRN) a joint venture between NASDAQ and Reuters. Under IRN a panel of research providers was established and stocks were allocated to each researcher by an expert committee who assessed competence and independence issues. The venture was wound up in 2008 because of its high cost and not because of any issues related to rigour.

In 2009 the NASDAQ OMX exchange entered into an agreement with Morningstar to provide equity research profiles to all listed companies (3,600). The rationale for the deal was to assist mid to small cap companies because sell-side firms have reduced their budgets and consequently

[6] 1.00 Malaysian Ringgit = NZ$0.32

their coverage of this sector. Research will be provided at no cost to the issuer. The research report will include a lengthy company profile, comprehensive data about the company and its industry and industry context written by a Morningstar analyst. The report does not include detailed analyst research, a rating or recommendation. Reports will be updated daily and will be available on NASDAQ AMX websites and on Morningstar platforms.

The NASDAQ website provides access to data provided by Zachs Investment Research which shows graphical representation of a company's consensus recommendation, detailed analyst recommendation, 12-month price target range, earnings surprise measure and momentum.

National Stock Exchange of Australia (NSX Ltd)

The National Stock Exchange of Australia operates an exchange for the listing of equity securities, corporate debt and managed investment schemes. NSX currently has around 80 companies trading on its exchange and has engaged RaaS in a 12 month trial to deliver one-page summaries on all new listings.

New Zealand Stock Exchange (NZX) and the NXT market

As part of the NXT initiative NZX entered into a research contract with Edison Investment Research to provide research for the first 24 months post listing on NXT. The research was to 'promote liquidity and assist in price discovery in markets operated by NZX'[7]. The research requirement was an initiation report and update after each preliminary financial announcement. This contract expired on 18 June 2017.

In June 2017, NZX announced its intention of merge its three markets (NZX, NZXAM and NXT) into one market.

NYSE EuroNext

In May 2009 NYSE Euronext announced a project to produce independent research for NYSE and NYSE Amex-listed companies using independent provider Virtua Research (has 200 analysts). The research is to include forecasts but will not include detailed qualitative analysis or recommendations. The research reports were to be accessible from NYSE Euronext, Virtua Research, Capital IQ and TheMarket.com websites.

In June 2014 Euronext (via its subsidiary EnterNext) announced two measures to increase equity research on mid-size companies:

- JV with Morningstar focused on 330 technology, life sciences and cleantech stocks companies with a combined market capitalisation of 27b Euro. Of these 330 companies 40% have no research coverage.
- Incentive scheme for brokers who are members of Euronext markets and cover SMEs. The fee incentive scheme includes an exemption from order fees on all stock covered and a discount on trading fees on all stocks covered (30% for coverage of 75 stocks and 50% discount for more than 75 stocks). Research coverage must be continuous and must include qualitative analysis, financial forecasts, valuation models, price targets and recommendations. There is a minimum requirement of an annual note and a requirement for distribution to the brokers' clients.

[7] NZX NXT Research Agreement

The Morningstar report does not provide valuation, price target or recommendation. It provides quantitative analysis of past financial data without comment. There is a one paragraph description of the business.

Singapore Stock Exchange (SGX)

The Singapore Stock Exchange (SGX) started offering research (the Research Incentive Scheme [RIS] to small cap companies listed on the exchange in 2003. Companies paid S$13,000 pa for research services from a list of brokers nominated as part of the RIS by SGX. In 2009 SGX scrapped the RIS and appointed two providers (Standard and Poors' for 'structured model' and DnB Nor for the 'sector model"'). With both schemes the difficulty has been proving the value of the offering to participant companies.

SGX has recently commenced another trial where independent research providers provide research coverage for S$10,000 pa to be paid for by the company.

Tel Aviv Stock Exchange (TASE)

In 2016 TASE entered into a research contract with Edison and Frost & Sullivan to provide research for technology and biomed companies traded on TASE (including dual listed companies and those in pre-IPO phase). The research requirement is for eight reports over 24-months. Companies will have to pay for the research between US$35,000 and US$55,000 pa) with a US$20,000 pa subsidy for Category 11 and 111 participants.8 Edison has released reports on 11 companies to date and Frost & Sullivan have been engaged to cover 10 companies under the TASE research scheme.

[8] Tech Analysis Equity Research Scheme, TASE

APPENDIX B – ASX Research Scheme – companies researched (page 1 of 4)

Exhibit 1: ASX Equity Research Scheme coverage by company, broker and publication date

Company	Last report	No of reports	Broker
Duxton Water	Dec-17	1	APP Securities
LiveHire	Dec-17	1	APP Securities
Medlab Clinical	Jan-18	1	APP Securities
Regional Expr4ess	Dec-17	1	APP Securities
Sky Space Global	Dec-17	1	APP Securities
Megaport	Oct-17	1	Cannacord Genuity
Genex Power	7-Nov-16	1	Cannacord Genuity
Think Childcare	29-Nov-16	4	Cannacord Genuity
Galaxy	15-Dec-16	4	Cannacord Genuity
Punge Pincock	28-Nov-14	1	CBA
Capilano	24-Sep-14	1	CCZ
Servecorp	23-Feb-15	3	CCZ
Mitula Group	23-Jan-17	1	CCZ
Gale Pacific	20-Feb-17	2	CCZ
Millennium Services	3-Mar-17	1	CCZ
Lifestyle Communities	Nov-17	1	CCZ
Webster	Dec-17	1	CCZ
Prime Media	Jan-18	1	CCZ
eBet	18-Nov-14	1	CIMB
Infomedia	26-Nov-14	1	CIMB
icar Asia	1-Dec-14	1	Credit Suisse
Seymour Whyte	2-Dec-14	1	Credit Suisse
Big Air	3-Dec-14	1	Credit Suisse
Smart Group	20-Jun-16	4	Credit Suisse
Adacel	3-Feb-17	1	Fosters
Adacel Technologies	Nov-17	1	Fosters
Codan	Nov-17	1	Fosters
SDI	30-Jan-17	1	Fosters
Dreamscape Networks	Dec-17	1	Fosters
Kidman Resources	Dec-17	1	Fosters
Codan	Jan-18	1	Fosters
Icon Energy	1-Dec-14	2	Hartleys
Dacian Gold	16-Sep-15	3	Hartleys
Cue Energy	30-Nov-15	6	Hartleys
Empire Oil Gas	15-Jan-16	3	Hartleys
Avanco Resources	11-Feb-16	4	Hartleys
Heron Resources	25-May-16	3	Hartleys
Alkane Resources	15-Jul-16	4	Hartleys
Lucapa Diamond Company	21-Sep-16	4	Hartleys
Millennium Minerals	31-Oct-16	2	Hartleys
Ramelius Resoures	30-Nov-16	4	Hartleys
Money3	1-Dec-16	5	Hartleys
Hot Chilli	15-Dec-16	4	Hartleys
Red5	20-Dec-16	4	Hartleys
Birimian	14-Feb-17	4	Hartleys
Millemium Minerals	Jan-18	1	Hartleys
Wollongong Coal	1-Dec-14	1	JP Morgan
Freedom Foods	29-Feb-16	2	JP Morgan
Flinders Mines	27-Oct-14	4	Macquarie
Sheffield Resources	19-Jan-15	3	Macquarie
Prairie Mining	24-May-16	4	Macquarie
NetComm Wireless	24-Oct-14	3	Moelis
Commodities Group	17-Dec-14	1	Moelis
ISA Group	21-Apr-16	4	Moelis
Grays eCommerce	23-May-16	3	Moelis
Huon Aquaculture	27-Jun-16	3	Moelis
Simavita	28-Jun-16	3	Moelis
McPhersons	27-Sep-16	1	Moelis
Medical Developments	9-Dec-16	1	Moelis
Spookfish	11-Jan-17	1	Moelis

Source: ASX

APPENDIX B – ASX Research Scheme – companies researched (page 2 of 4)

Exhibit 2: ASX Equity Research Scheme coverage by company, broker and publication date

Company	Last report	No of reports	Broker
Aspen	16-Jan-17	1	Moelis
Class limited	18-Jan-17	1	Moelis
Big Un	Nov-17	1	Moelis
Medical Developments	Oct-17	1	Moelis
Pengana Capital group	Nov-17	1	Moelis
Spookfish	Nov-17	1	Moelis
Korvest	8-Aug-14	1	Morgans
Clover Corp	10-Oct-14	1	Morgans
Hughes Drilling	26-Nov-14	1	Morgans
SomnoMed	18-Feb-15	3	Morgans
Supply Network	18-Feb-15	2	Morgans
Capitol Health	12-Mar-15	3	Morgans
Speedcast	25-Feb-16	4	Morgans
Reva Medical	18-May-16	3	Morgans
1300 Smiles	26-May-16	3	Morgans
Yowie	7-Jun-16	3	Morgans
Vimy Resources	13-Jul-16	3	Morgans
K2 Asset Management	21-Jul-16	3	Morgans
Thunderlarra (resources)	28-Jul-16	3	Morgans
Byron Energy	29-Jul-16	3	Morgans
Austock Group	11-Nov-16	1	Morgans
360 Capital	28-Nov-16	4	Morgans
Jumbo Interactive	30-Nov-16	1	Morgans
XPD Soccer Gear	30-Nov-16	1	Morgans
Australian Finance Group	7-Dec-16	1	Morgans
Antipa Minerals	9-Dec-16	1	Morgans
Over the wire	9-Dec-16	2	Morgans
Stanmore Coal	21-Dec-16	3	Morgans
Eastern Goldfields	2-Feb-17	1	Morgans
Austin Engineering	Dec-17	1	Morgans
Bubs Australia	Dec-17	1	Morgans
Infigen Energy	Dec-17	1	Morgans
Metro Mining	Oct-17	1	Morgans
Namoi Cotton	Oct-17	1	Morgans
Anteo Diagnostics	30-Dec-14	1	PAC
Medical Developments	28-Jan-15	2	PAC
Montech Holdings	29-Mar-16	3	PAC
Brain Resource	30-May-16	2	PAC
Urbanise	1-Jul-16	3	PAC
Alliance Resources	31-Aug-16	3	PAC
Spookfish	1-Sep-16	3	PAC
Ellex Medical Lasers	9-Sep-16	3	PAC
Pental	12-Sep-16	3	PAC
iSign This	14-Sep-16	2	PAC
dorsaVi	19-Sep-16	3	PAC
Mint Payments	13-Dec-16	1	PAC
BuildingIQ	21-Feb-17	1	PAC
99 Wuxian	14-Mar-17	1	PAC
Azure Minerals	17-Mar-17	1	PAC
99 Wuxian	Nov-17	1	PAC
Aurora Labs	Dec-17	1	PAC
Building IQ	Nov-17	1	PAC
DongFang Modern Agriculture	Dec-17	1	PAC
Mareterram	Dec-17	1	PAC
New Standard Energy	29-Dec-14	2	Patersons
Poseidon Nickel	5-Jan-15	2	Patersons
eserv Global	21-Jan-15	2	Patersons
Range Resources	2-Apr-15	2	Patersons
Empire Oil Gas	1-May-15	3	Patersons
Covata	14-Apr-16	3	Patersons

Source: ASX

APPENDIX B – ASX Research Scheme – companies researched (page 3 of 4)

Exhibit 3: ASX Equity Research Scheme coverage by company, broker and publication date

Company	Last report	No of reports	Broker
Moko Social Media	9-May-16	3	Patersons
iWebgate	24-May-16	3	Patersons
Kingsrose	12-Aug-16	2	Patersons
MZI Resources	7-Oct-16	4	Patersons
Pro-Pac	14-Oct-16	1	Patersons
WPG Resources	14-Oct-16	1	Patersons
SRG	25-Nov-16	1	Patersons
NetLinkz	28-Nov-16	1	Patersons
Talga Resoures	19-Dec-16	5	Patersons
Blackham Resources	30-Jan-17	2	Patersons
Avenira	17-Feb-17	2	Patersons
ResApp Health	1-Mar-17	2	Patersons
Boom Logistics	7-Mar-17	2	Patersons
TNG Limited	21-Apr-06	3	Patersons
Aspen	20-Jun-16	3	Patersons
Deep Yellow	Oct-17	1	Patersons
Elk Petroleum	Dec-17	1	Patersons
Ironbark Zinc	Dec-17	1	Patersons
Kingsgate Consolidated	Dec-17	1	Patersons
Benitec Biopharma	1-Nov-14	1	Patersons
HFA	20-Nov-14	4	Shaw & Partners
Tandao Limited	18-Dec-14	1	Shaw & Partners
Summerset	26-Feb-15	2	Shaw & Partners
Equity Trustees	27-Feb-15	2	Shaw & Partners
Webster	1-Dec-15	2	Shaw & Partners
Citadel Group	18-Feb-16	3	Shaw & Partners
Centuria	16-Sep-16	4	Shaw & Partners
Fiducian Group	6-Dec-16	1	Shaw & Partners
Managed Accounts.com.au	6-Dec-16	1	Shaw & Partners
Hub24	6-Dec-16	1	Shaw & Partners
Neometails	24-Feb-16	4	State One
Havilah Resources	12-Jul-16	3	State One
Kibaran Resources	28-Jul-16	3	State One
McPhersons	16-Nov-16	1	State One
Mincor Resources	16-Nov-16	1	State One
Locality Planning	13-Dec-16	1	State One
ELK Petroleum	29-Dec-16	1	State One
Buddy Platform	24-Jan-17	2	State One
Hazer Group	Dec-17	1	State One
Smart parking	Oct-17	1	State One
Fastbrick Robotics	Jan-18	1	State One
Rural Funds Group	Jan-18	1	State One
Blue Energy	29-Oct-14	3	Taylor Collison
PMP	16-Dec-14	2	Taylor Collison
Mobile Embrace	14-Jun-16	6	Taylor Collison
FFI Holdings	7-Jul-16	3	Taylor Collison
Desane Group	14-Jul-16	3	Taylor Collison
The Pas Group	28-Jul-16	3	Taylor Collison
Petsec Energy	8-Sep-16	1	Taylor Collison
Prophercy	6-Oct-16	4	Taylor Collison
Australian Vintage	3-Nov-16	4	Taylor Collison
Strike Energy	7-Nov-16	1	Taylor Collison
Pharmaxis	30-Nov-16	1	Taylor Collison
Supply Network	14-Dec-16	5	Taylor Collison
Chalice Gold Mines	19-Dec-16	4	Taylor Collison
Clean Seas	22-Dec-16	1	Taylor Collison
Eden Innovations	28-Dec-16	1	Taylor Collison
Molopo Limited	28-Dec-16	1	Taylor Collison

Source: ASX

APPENDIX B – ASX Research Scheme – companies researched (page 4 of 4)

Exhibit 4: ASX Equity Research Scheme coverage by company, broker and publication date

Company	Last report	No of reports	Broker
Garda Diversified Property	12-Jan-17	1	Taylor Collison
Opthea	19-Jan-17	1	Taylor Collison
Data 3	2-Feb-17	1	Taylor Collison
Universal Biosensors	7-Feb-17	1	Taylor Collison
CTI Logistics	14-Mar-17	5	Taylor Collison
Comet Ridge	21 Dec 2015	1	Taylor Collison
Australian Vintage	Dec-17	1	Taylor Collison
Chalise Gold Mines	Oct-17	1	Taylor Collison
Cogstate	Oct-17	1	Taylor Collison
Consolidated Operations Group	Oct-17	1	Taylor Collison
Data#3	Dec-17	1	Taylor Collison
Enero	Nov-17	1	Taylor Collison
FFI Holdings	Dec-17	1	Taylor Collison
Global Geoscience	Dec-17	1	Taylor Collison
Opthea Ltd	Nov-17	1	Taylor Collison
RXP Service	Dec-17	1	Taylor Collison
Sheffield Resources	Dec-17	1	Taylor Collison
Strike Energy	Dec-17	1	Taylor Collison
Tempo Australia	Nov-17	1	Taylor Collison
Alliance Aviation	5-Oct-16	1	Wilsons Advisory
Axiom Mining	6-Nov-15	3	Wilsons Advisory
Oncosil Medical	21-Jan-16	3	Wilsons Advisory
AV Jennings	10-Feb-16	3	Wilsons Advisory
Beacon Lighting	11-Apr-16	3	Wilsons Advisory
Bravura	Oct-17	2	Wilsons Advisory
EQT Holding	Oct-17	1	Wilsons Advisory
Fiducian Group	Oct-17	1	Wilsons Advisory
MotorCycle Holdings	Dec-17	1	Wilsons Advisory
Micro-X	29-Nov-16	1	Wilsons Advisory

Source: ASX

APPENDIX C– RaaS Advisory Pty Ltd Background

RaaS Advisory Pty Ltd was formed in late 2016 by former sell-side analyst Finola Burke to focus on smaller company research.

RaaS derives its income from two sources:

- Company sponsored research in which RaaS is contracted to produce financial models and prepare research reports on companies;
- Exchange-funded research – RaaS has been contracted by NSX Ltd to produce quantitative summaries on new and existing listings and by PrimaryMarkets Ltd to deliver comprehensive 12-page reports on selected companies on its unlisted exchange.

Following is some background on RaaS's analysts:

Finola Burke – Managing Director

- Top 3 rated Australian media – at Credit Suisse
- No 3 ranking BRW survey of sell-side analysts
- Director Credit Suisse (5 years)
- Senior analyst positions held at BNP Paribas and Southern Cross Equities
- 20 years' experience in analysis and dissemination of relevant information across media and tech sectors

Andrew Williams – Senior Consultant Analyst - Resources

- Top 3 rated Oil & Gas Analyst
- 2009 No 1 stock picker Resources (Starmine)
- 22 years experience in sell side analyst roles, four years in buyside roles, relevant industry experience
- Director Credit Suisse (8 years), Director Royal Bank of Canada (4 years)
- 12 years' industry experience: Schlumberger (Australia); Woodside Petroleum; Billiton; Mobil (Minerals)
- Concurrently Senior Consultant Analyst, Oil & Gas, Taylor Collison