



LIQUIDITY'S BATTLE ROYALE

Liquidity – or the retreat of trading liquidity in the post-crisis world – is perhaps the most critical issue facing capital markets today. The KangaNews DCM Summit assembled a group of experts to share their insights into the state of affairs and potential way forward.

PARTICIPANTS

- **David Hanna** Division Director, Fixed Income and Currency MACQUARIE INVESTMENT MANAGEMENT ■ **Rakesh Jampala** Head of Rates Trading ANZ
- **Anthony Kirkham** Head of Investment Management and Australia and New Zealand Operations WESTERN ASSET MANAGEMENT
- **Steve Lambert** Executive General Manager, Capital Financing NATIONAL AUSTRALIA BANK ■ **Simon Warner** Head of Global Fixed Income AMP CAPITAL

MODERATOR

- **Chris White** Chief Executive VIABLEMKTS

STATE OF PLAY

White How do panellists view conditions for trading in today's markets? There is a great deal of media coverage, but are conditions really as challenging as portrayed?

■ **WARNER** Conditions are quite challenged, for a number of reasons. The price of any asset at any time will be determined by uncertainty – and there are large parts of the credit market where there is increased uncertainty around fair value. I think it is right and proper that there is more volatility as a result, which seems to me to be a reflection of available information. This point is exacerbated in an environment of low liquidity.

My point of view on liquidity is determined primarily by two factors: the degree of heterogeneity in the underlying asset class and the degree of homogeneity in the capital that is supplied to the market.

Whether or not this is temporary depends on your definition of temporary. I think more can be done to make underlying asset classes fungible and homogenous, and market forces are in place which may make the capital applied to these markets more heterogeneous over time. But it may take a while.

■ **HANNA** In terms of whether current problems are temporary, I would describe them as 'temporarily exacerbated by global events'.

Macquarie Investment Management's head of research, Dean Stewart, published a paper on liquidity in 2003. Key findings were that liquidity is often mispriced, especially by the buy side, and liquidity is a cost to the system that must be factored in by portfolio managers.

We have traditionally believed liquidity to be among the most important factors to consider. In fact, cost of liquidity can actually be higher than cost of credit on a number of securities. Our approach has always been to have a high respect for



Destination Global.

The platform that connects you
to a world of opportunities.

TD Securities' multi-currency platform
enables you to achieve your capital
raising and investment objectives.
We can take you there.

Contact one of our representatives today

Toronto
1 416 982 8045

New York
1 212 827 7325

London
44 20 7628 2772

Singapore
65 6500 8031

Hong Kong
852 2613 3633





liquidity – and this means that we have not needed to change too much even in problematic times.

■ **LAMBERT** I agree with everything Simon Warner says. My perspective is that the issues are not the same across all asset classes, even within fixed income. A lot of the trade press and noise around liquidity issues, particularly over the last 2-3 years, has emanated from the US, where there are greater challenges.

The point Simon makes around the different types of capital is a very important one because there are other pockets of emerging liquidity from nontraditional investors, which are also quite interesting in this market.

■ **KIRKHAM** I agree with this. Much of the press coverage is US-based and partly driven by the fact that the US market is historically far more liquid than ours. It has also expanded significantly through the last few years and there is no question that liquidity has simultaneously been taken out of the market, due to a combination of less participants and greater regulation.

On the other hand, locally we have been managing to less liquidity for a long time. This means we have been building funds with greater diversity and making greater demands on issuers in terms of our expectations around illiquidity premia, as well as carrying out credit work on the expectation that we will most likely hold paper until maturity. In Australia, we

haven't operated according to the principle that we will be able to trade out of a position, or make money on the break of a primary deal. This became almost the normal course of events in the US.

Nothing is permanent in financial markets. But the current conditions for liquidity will be with us for a while as regulation beds in and banks set their businesses to meet this.

■ **JAMPALA** Knowing how to measure liquidity is problematic, and how to price it has become a very salient point in recent times.

Since 2009-10, which was probably the high point in terms of trading, banks globally across fixed-income, currency and commodity markets now afford 60 per cent less balance sheet in risk-weighted-asset terms than they did, and a more than 30 per cent reduction in balance sheet alone. So there is significantly less provision of liquidity to the market – based on regulatory developments.

Banks are becoming much better at measuring capital and risk-weighted assets, and apportioning these to different customers holistically. But the provision of liquidity is an entirely different thing.

The way we do this at ANZ is evolving, but it is around relationships. The clients that we determine are the best relationships are afforded liquidity and support accordingly. A perfect example is the flash crash of 2015. When different clients ask us for liquidity provisions, the question is how we best ration this limited liquidity.

White The US market has seen tremendous growth in recent years, to the extent that, intuitively, it might seem strange that it has a liquidity problem at all. What do panellists think about the idea that size does not necessarily beget more liquidity?

■ **LAMBERT** To me, the paradox is that in the last 20 years market volume has significantly grown yet the number of participants is significantly less.

In the 1970s, many top-tier Wall Street banks, as well as regional banks and other players, provided liquidity to the street while the investors themselves were smaller and often regionally based. What has happened is, as part of the 'great aggregation', funds have grown in size and the need for liquidity has become more frequently discussed – in my view sometimes to the point of exaggeration.

As the big funds have grown, the market has needed bigger pools and larger balance sheets to handle the greater perceived liquidity needs. This has been the real issue, in my view – the fact that both sides of the balance sheet have grown so much.

■ **KIRKHAM** Investment managers have to operate in a changed market and we have carried out a lot of work around this within our risk-management team. Because liquidity is in the headlines clients are asking questions, particularly in the US, so we have done a lot of work to identify a scoring system to help determine what liquidity is.



Because we cover more, we uncover more.

At NAB we cover more aspects of finance and business than any other Australian bank. Which means we work to deliver more access to channels, sectors and specialists of just about every kind.

And because we see more deals from more angles, we're able to uncover more opportunities, as well as hidden risks.

At NAB, we're providing new perspectives on global solutions.

Institutional Banking • Asset Servicing • Trade Finance • Foreign Exchange • Commodities
Risk Management Solutions • Project Finance • Foreign Currency Accounts • Fixed Income
Debt Capital Markets • Wealth Management • International Trade Management • Treasury



“Banks are becoming much better at measuring capital and risk-weighted assets, and apportioning these to different customers holistically. But the provision of liquidity is an entirely different thing.”

RAKESH JAMPALA ANZ

The market itself has had to come up with some rules, though, and in the US the starting point has been to use repo haircuts. From there, physical securities are examined to determine how many price providers there are, and this criterion is used to come up with a scoring regime. This score is compared to a portfolio's benchmark to determine the level of liquidity in the funds.

White To Steve Lambert's point, though, would a scoring system be based on a fund's overall size?

■ **KIRKHAM** Partly. The scoring system is relative to the benchmark so it helps us to determine how much of the portfolio is liquid. We shouldn't assume that all portfolios actually need to be liquidated every moment of every day, though. Funds being managed for an insurance company or pension fund have a longer time frame and don't need to have a whole lot of liquidity built into them. On the other hand, if you're running a mutual fund retail investors may expect to be able to pull out their assets tomorrow. These funds will need to have liquid bonds to meet this demand.

CLIENT EXPECTATIONS

White Based on Anthony Kirkham's point, is there a view that lengthening redemption features would be beneficial for improving overall market conditions?

■ **WARNER** I hear a lot of confusion around these issues so this is a good opportunity to provide some clarity. The buy side is an agent, not the principal. It is at the whim of principals' demand for liquidity or the tolerance of a principal to warehouse liquidity. This is a concept that anybody who is thinking about market structure, and about changes in market structure, needs to have at the forefront of their mind.

I agree with Anthony Kirkham in the sense that, to some degree, there is a tacit liquidity window for different types of clients. Some of it is well codified, and certainly for retail it has to be.

I think over time it will be possible to conceptualise at least an array of products for retail with different redemption windows, various return characteristics, and where investors could be rewarded for having a longer redemption window through higher return and an ability to warehouse liquidity. To

me, this is the route by which what is referred to as the 'buy side' could become a liquidity provider – namely the principals changing their demand for liquidity and explicitly defining where their tolerance for warehousing liquidity is.

There is also a breadth of other institutional customers, particularly insurance companies, which have very long investment horizons and a high tolerance for warehousing liquidity. We probably haven't done enough work to move from our tacit understanding that long-term investor clients have liquidity and that they are willing to warehouse, to making this explicit.

White Rakesh Jampala, if a customer wants to transact something that is not actively traded with you, what sort of expectations should there be from a liquidity provider's standpoint? In other words, is there always an expectation that the trade should be turned around in a single day?

■ **JAMPALA** The provision of liquidity is rapidly evolving. The fundamental factor for banks is the extent to which the market is becoming agency- rather than principal-based. Really, principal trading within market making in banks is around credit and rates, and probably credit to a lesser extent.

In terms of how we would take down the sort of risk you describe, the pool of banks that can provide this service to customers is becoming ever smaller. What we're seeing from asset managers is that they are consolidating their wallet share, such that they get better access to a lessening pool of liquidity.

Similarly, the market is becoming increasingly bifurcated from a bank perspective. The banks that rank five to 15 in dealer panels are increasingly becoming broker-dealers – and over time I think they will disappear. This will leave the top-tier, dominant houses, which will still hopefully be able to provide liquidity.

White But wouldn't the concentration issue that we're talking about also be a problem if consolidation is also occurring among market makers? Who are you going to hedge against if you're trying to provide liquidity to a customer but there are only two or three other banks of your size that are able to do it?

A Premier Investment Bank

Take Confidence in Our Approach



RBC Capital Markets

rbccm.com

This communication is intended solely for the recipient as part of a description of our investment banking capabilities, is not and does not constitute an offer to sell or a solicitation of an offer to buy any securities of any issuer referenced herein in any jurisdiction, and may not be forwarded to other persons, reproduced or copied by any means without the consent of RBC Capital Markets. RBC Capital Markets is a registered trademark of Royal Bank of Canada. RBC Capital Markets is the global brand name for the capital markets business of Royal Bank of Canada and its affiliates, including RBC Capital Markets, LLC (member FINRA, NYSE, and SIPC); RBC Dominion Securities, Inc. (member IIROC and CIPF), RBC Europe Limited (authorized and regulated by Financial Services Authority), Royal Bank of Canada – Sydney Branch (ABN 86 076 940 880) regulated by ASIC and RBC Capital Markets (Hong Kong) Limited (regulated by SFC). © Registered trademark of Royal Bank of Canada. Used under license. © Copyright 2016. All rights reserved.



“We probably haven’t done enough work to move from our tacit understanding that long-term investor clients have liquidity and that they are willing to warehouse, to making this explicit.”

SIMON WARNER AMP CAPITAL

■ **JAMPALA** Perhaps there will be a smaller pool of participants, but ultimately there is always a price. My personal view is that there will always be room, and a requirement, for large-scale risk disintermediation. This may continue to be via banks going forward, or through a Lazard-type firm, the likes of which have opened up in the M&A space. Intermediary services outside of the banks and the current pool of asset managers will always exist – but with a price consequence.

ELECTRONIC TRADING

White This is a good point. In the US, Citadel has created a market-making unit which exists separately, the firm says, from its buy-side unit. To steer the conversation in a different direction, though, I would like to talk about the role that technology can have in the marketplace. Does electronic trading have a part to play, and do panellists think it could be a panacea for the issues we have discussed?

■ **HANNA** Market participants anticipated that electronic trading, as a forum to aggregate offers and bids, would be the solution. But liquidity is either there or it’s not, and an electronic platform isn’t going to create liquidity where there is none.

However, electronic platforms can regulate buying and selling amounts, of, say, A\$5 million (US\$3.7 million) per side. Trading off these kinds of volumes can actually start to move the price, compared with where you’re dealing directly with brokers and dealing in much larger volumes.

Electronic trading can potentially exacerbate price movements but it does not have the ability to create liquidity.

It’s a functional tool and it’s an aggregator, but I don’t think it’s going to help too much in finding liquidity if it isn’t already in evidence.

White Simon Warner, do you see electronic trading as being a gateway to insurance companies and other investors with longer time horizons being more active participants in the marketplace? Or can these investors still participate by simply picking up the phone?

■ **WARNER** Maybe, but it is also important to understand the impediments. A crucial point in terms of trying to get capital deployed in an area of uncertainty seems to me to be quantifying or at least setting some guide to, over time, the benefit of providing liquidity systematically – for example in EXANTE. But anything which can help make the return on deployed capital more transparent in liquidity terms is positive for the market.

In terms of electronic trading, the principle of aggregating interest in the market is hard to argue against. However, the example of FX platforms is a salient one. Foreign exchange is a different market with very different features, but the way electronic trading platforms have evolved in the last 10-15 years has caused the diversity of market-making participants to decrease. The vast majority of FX volume now is concentrated in two or three homogeneous platforms.

I keep coming back to the notion that diversity of participants is a critical feature of liquidity provision. In the FX market it is possible to transact large amounts of volume at tight bid and offer spreads when there’s information that changes perceptions of fair value. But a diversity of opinion on fair value is not really there to the extent that it once was.



“Market participants anticipated that electronic trading, as a forum to aggregate offers and bids, would be the solution. But liquidity is either there or it’s not, and an electronic platform isn’t going to create liquidity where there is none.”

DAVID HANNA MACQUARIE INVESTMENT MANAGEMENT

CONNECTIONS MAKE THE WORLD GO ROUND

When it comes to growing your business across borders, connections count. That's why ANZ connects you to insights and expertise in markets across Asia Pacific. So when you need to reach your customers, suppliers and business partners, you know you'll have the right people at the right places.

AUSTRALIAN DOMESTIC PRIMARY MARKET BOND HOUSE 2015
& NEW ZEALAND DOMESTIC BOND HOUSE 2015*

anz.com/expertise

*KangaNews Awards 2015.
Australia and New Zealand Banking Group Limited (ANZ) ABN 11 005 357 522.

YOUR WORLD
YOUR WAY



A FUNDAMENTAL VIEW ON LIQUIDITY

Chris White is the New York-based founder and chief executive officer of ViableMkts, a fintech innovation firm. In a world where trading markets are challenged, his views on liquidity are unique and thought provoking for market participants.

White, who started ViableMkts after working for several banks in the US, including Barclays and Goldman Sachs, believes that all markets obey an underlying science bound by laws and principles. "The more we understand these, the better we can be at ensuring markets have greater integrity," he told summit delegates.

According to White, liquidity is the most misunderstood term in financial markets today. "Because liquidity as a concept is subjective, it is impossible to define, measure or quantify. Other examples of subjective terms are 'beauty', 'boring' and 'fun'. You know these when you see or experience them, but it is impossible to quantify them."

White says liquidity can be best described using the term "predictable immediacy". He explains: "If I want to do something predictably and I want it to be immediate I am

really just looking for a service of convenience."

If this holds true, liquidity is something that needs to be paid for – just like any other service. "In financial-markets terms, the buyers of liquidity are looking for the trading process to be made more convenient for them," White explains. "If anyone is going to sell the service of convenience, they are going to expect something in return."

In White's opinion, inaccurate interpretations of the current state of liquidity are tainting global views around what classifies as a functional market. The confusion arises because of the expectation that participants should not have to pay to trade in liquid markets. White argues that this kind of environment fosters instability, in the sense that the number of sellers of liquidity – in other words those who are willing to sell the service of convenience – has

decreased substantially in the last few years.

Finding a fix

Liquidity problems have been exacerbated by balance-sheet restrictions put in place by global regulators. But regulation is not the root cause of global liquidity issues, White insists.

He claims factors which may have the greatest impact in terms of improving the integrity of a market are architectural in nature. For this reason he argues that the control system around pricing provided by electronic trading, often held up as a panacea for illiquidity in global markets, is actually ineffective. He is similarly unconvinced that peer-to-peer trading offers a cure-all.

"This would be like deciding the service I receive by taking public transport or a taxi to work every morning is not reliable and so I'm going to

hitchhike instead," he counters. "I'm going to take a chance that someone will drive past that happens to be going to the same location I'm going to every day."

At its heart, this is what peer-to-peer trading is. "I have heard it described as the 'Uberisation' of the market," White continues. "I have to remind people they still have to pay to take an Uber vehicle. They haven't fundamentally changed anything, or eliminated the middle person – the seller of liquidity. All they have done is improve the control system around transportation."

In fact, White believes the most natural method by which these issues can be fixed is by broadening market participation – by creating a competitive environment which has adequate incentives. "If there is a liquidity issue in your market, create an environment in which the incentives around providing liquidity bring more liquidity providers."



"IN FINANCIAL-MARKETS TERMS, THE BUYERS OF LIQUIDITY ARE LOOKING FOR THE TRADING PROCESS TO BE MADE MORE CONVENIENT FOR THEM. IF ANYONE IS GOING TO SELL THE SERVICE OF CONVENIENCE, THEY ARE GOING TO EXPECT SOMETHING IN RETURN."

CHRIS WHITE VIABLEMKTS

This is why I think the Swiss National Bank event was an important one. There was a huge information change, so fair value changed enormously. But there were periods in that instance where there was no price – the market was black. This tells you that there was a lack of participant diversity.

White Western Asset Management (Western Asset) is active in electronic trading in fixed income in the US. Anthony Kirkham, is being

more active electronically part of your core strategy going forward?

■ **KIRKHAM** Absolutely. A number of new platforms have started up in the US and Western Asset sees these as a great addition to the market, in the sense that they add competition. But the volumes we see going through tend to be 'odd lots' rather than large transactions.

This is because, like any poker game, people don't want to show their hand. They are reluctant to let the market know that

“I think most banks have given a lot of thought to issues around the cost of liquidity and to what degree this should be shared between buy and sell side. There is a lot more knowledge in the ecosystem that we should be referencing.”

STEVE LAMBERT NATIONAL AUSTRALIA BANK



they have a very large position they want to move, because this would provide the market with information which would likely bring about movement before there was the opportunity to carry out the trade.

Odd lots aren't necessarily a negative, though. They provide some pricing points within the marketplace and this is clearly a good thing.

■ **LAMBERT** I think it's always hard with electronic trading in fixed income because it's almost completely the opposite of equities and entirely the inverse of FX – where there is multiplicity even in the same underlying credit. On the other hand, multiplicity of bonds – where they are all different – presents issues at a practical level.

However, there have been two key investor trends over the last 5-6 years in Australia which are worth noting. First, the Asian bid – comprising banks and other investor groups – for the Australian corporate bond market is continuing to grow, and it gets larger in almost every transaction. Second, the noninstitutional – in other words the retail, not-for-profit and self-managed super fund (SMSF) – bid is also growing.

It is true that this investor base remains the basis of the hybrid and tier-two markets, and also unrated deals. But the bid is getting larger, to the extent that it makes up around 10-15 per cent of transactions even for well-rated double- and single-A corporate credits.

I think this demand will continue to grow. The challenge for banks trying to tap the SMSF pool is how to gain access to it. There is a role for electronic trading but it requires a balance.

My personal view is that noninstitutional investors will be useful for the institutional bid as a new source of liquidity and alternative market flow.

White Rakesh Jampala, how would you assess the quality of electronic order flow in Australia compared with what can be accessed over the phone?

■ **JAMPALA** From both a rates and credit perspective, electronic trading constitutes a very small part of our business, and probably our strategy, in the very short term. As a domestic bank, the market understands that we are not at the forefront of electronic-trading technology in the short term.

Having said this, we're also conscious of the longer-term view. Personally, I expect to see a substantial increase in the use of all-to-all platforms, such as Yieldbroker, going forward.

Within 18 months it is also reasonable to expect new market participants – like Citadel – and to see some clients coming onto swap-trading platforms. How successful these will be is where I remain sceptical. I don't think liquidity can be increased simply by virtue of having a larger number of participants in the market. I view this simply as order flow. In times of stress, prices do not necessarily indicate genuine liquidity beyond this point.

ACHIEVING DIFFERENTIATION

White Which factors need to be mastered on the sell side to be able to differentiate service going forward? In other words, how can you let other people know that there's value in interacting with you as a counterparty as opposed to a competitor?

■ **JAMPALA** I don't think there is one particular strategy per se, but I feel very strongly that there has to be a strategy. The old-school bank methodology of being everything to everyone is not possible in the new world, where we have to be much more rigorous around our apportioning of capital and risk.

Everyone needs a very clear strategy. Ours, in liquid deep markets such as Australian dollar rates, is to be a 'flow monster' and a risk behemoth. We are never going to be the best US dollar swap trader or euro government bond house. But within our particular markets we have to be in the top two, to the extent that if someone needs to move large risk parcels at any point on the curve they know they can come to us.

White What about differentiation from an investment-management standpoint? How can fund managers differentiate their firms going forward to encourage the flow of assets coming your way?

■ **HANNA** We have been doing this for some time. It includes working hard to educate clients on liquidity, our approach to liquidity targets and models, and what we put into a portfolio to form the liquidity profile that each one needs.

Also paramount to concerns around liquidity, and in giving clients comfort around a firm's investment-management skills, is the extent to which we regularly communicate with our clients. This is an ongoing form of education through which we keep them informed of market developments.



For example, in 2008-09 we operated A\$9 billion of assets under management, all of which had daily liquidity. We didn't gate any of our portfolios, even though clearly we had clients who wanted to take their money out.

However, our engagement with our clients meant they kept calm and were able to take a longer-term view of their investments. This particularly refers to things like the way we tried to educate our clients around the latest developments, explain to them that liquidity was available and ensure they understood the likely cost of the liquidity in terms of sell spread.

White Simon Warner, do you believe flexible redemption features are a way to differentiate AMP Capital going forward, or do you feel that what we're talking about here might be a mismatch to what's actually available in the market?

■ **WARNER** Only having flexible redemption fees strikes me as a low value-add. What is higher is to have flexible redemption features and an ability to explain the benefit of different redemption scales. In my mind this relies on whether, as a fund manager, you have confidence in fair value at times when other fund managers might not.

Some market participants revert to the current price as fair value. However, in an environment where prices are rapidly moving there needs to be an objective assessment of what fair value is, in order to provide liquidity to the market and have a sustained pay off. Deep, underlying fundamental credit research strikes me as being a precondition for being able to monetise the diversity of redemption windows.

■ **KIRKHAM** Our view on fundamental market conditions is definitely a regular discussion and part of the ongoing process we have with clients. If end investors are going to see their performance move away because of price, something must have occurred in the market. So they have to have some form of comfort around our strategy and our research capabilities to be able to determine whether it is a short-term event – that there is still value and that performance is going to come back.

Certainly what's required is a level of trust, and hopefully the relationship is strong enough to get this view across. I think it's important to recognise, though, that there is opportunity in dislocated markets and the fact that, if there is liquidity in the portfolio, it is possible to make the most of these opportunities. When you see something mispriced it is possible to enter the market and add value. This comes back to an ability to actively manage rather than managing according to a benchmark.



“I think it's important to recognise that there is opportunity in dislocated markets and the fact that, if there is liquidity in the portfolio, it is possible to make the most of these opportunities. When you see something mispriced it is possible to enter the market and add value.”

ANTHONY KIRKHAM WESTERN ASSET MANAGEMENT

MUTUAL UNDERSTANDING

White What expectations should the sell side have for the buy side going forward, and vice versa? What should the 'rules of engagement' be between the two groups?

■ **LAMBERT** I think open dialogue is crucial – so more discussion. I think most banks have given a lot of thought to issues which have been raised around the cost of liquidity and to what degree this should be shared between the buy and sell sides. There is a lot more knowledge in the ecosystem that we should be referencing.

This type of discussion, which delves deep into known liquidity issues, is very positive, particularly for offshore investors – for instance in the US private placement market – where the view of liquidity and fundamental credit risk is very different. There remains a gap around deeper credit scores in the domestic market, and there is a lot more work that can be done here as well.

The other side is that trading desks were the source of liquidity historically, as well as the source of the banks' appetite. But this is more challenged now. Even five or six years ago residential mortgage-backed exposure was no longer on the trading book at National Australia Bank, but part of the debt capital markets world – where we understood the risk and could take a view over a period of time. In a sense, acting more like a fund manager.

The reality at the moment is that banks have to price differently given the capital constraints they are under. I think, as much as anything, talking and open dialogue is key around the various different asset classes.

White Do panellists expect that there will be a greater understanding of the challenges faced in the sell among investors? And is this a realistic expectation?

■ **JAMPALA** I think it has to be. It is almost a precondition for operating. Several big global banks have recently come to realise that 15-20 per cent of their clients make up 80-85 per cent of their wallet share.

This has perpetuated significant change in the way banks operate and the way they are talking to clients – and the situation is no different in Australia. In the last 10 years, markets have probably been overbroke.

But changes are occurring, and the key is that it's all about relationships. We're finding this, as an aspect of today's trading environment, to be far more enjoyable than it was a decade ago when traders were just answering the phone and providing a price – like anyone else. Nowadays the dialogue is more engaging, the buy side is a lot more aware of our strengths and we should be more aware of its needs. If these two things can match, it will be a far more fruitful relationship.

White So what do investors expect from the sell side if they want to see your order flow?

■ **KIRKHAM** It's interesting because I think we are all singing from the same song sheet. Certainly when we talk to the main banks around the world we are of the universal belief that we need to build better relationships with them, we're choosing the brokers we want to deal with based on their capabilities, and

we approach these parties for their specialities. There is certainly a much higher level of trust required in the relationships which are being built, and therefore we're hoping that these parties will be there for us in times of stress.

However, there is also a general understanding on our side that they won't or can't always be there. This is where we come back to building portfolios that are able to meet our liquidity needs.

■ **WARNER** We've scored our counterparties on various metrics for seven or eight years. If they want to ask me what these metrics are I will tell them. We score them on transparency, relationship, research, pricing, administration and a number of other factors.

In terms of the original question, as I explained earlier there is a theoretical movement of an increase in diversity of market participants but there are huge impediments to this happening. I think the very fact that Rakesh Jampala wants to deal with his top-15 counterparts because they are 85 per cent of market volume means that they are probably homogeneous.

I happen to think that benchmarks are terrible for fixed income. But the fixed-income industry has done a poor job of articulating why benchmarks are terrible and what an alternative might look like, for instance a market-capped base benchmark.

There are lots of reasons around underlying customer expectations in intermediaries' business models as well as the free flow of information, and this means that the degree of heterogeneity between participants is unlikely to increase dramatically in the next few years. I don't see it, actually. I think we are stuck with what we have for quite a while. •

