

IG Response to the Consultation on the Protection of Retail Investors in relation to the Distribution of CFDs.

We would like to thank the CBI for giving us the opportunity to respond to the Consultation on the Protection of Retail Investors in relation to the Distribution of CFDs. This is an area that we feel very strongly about and we agree that as an industry we must take steps to protect retail clients.

One of our main concerns is that the disproportionate implementation of investor protection measures may guide retail clients towards irresponsible firms that are outside the control or influence of the CBI, or indeed of any other EEA regulatory body.

We hope that our response, including the quantitative analysis that has been provided and summarised within the appendices to this response, is useful and insightful and we ask that this information is given due consideration as part of the consultation process.

1. Which of the options outlined in this paper do you consider will most effectively and proportionately address the investor protection risks associated with the sale or distribution of CFDs to retail clients? Please give reasons for your answer.

We believe that Option 2 would be the more effective and proportionate of the two options offered in CP107 (though we disagree with the details of the suggested leverage restriction regime included within that option – see answer 2(a), below).

We think Option 1, a prohibition on the sale or distribution of CFDs to retail clients, would be a counterproductive and disproportionate measure that would be likely to lead to worse client outcomes – both for (i) the set of clients with sufficient understanding and a legitimate need to trade CFDs and (ii) vulnerable clients, for whom CFDs are unsuitable, who will be more likely to be successfully targeted by unscrupulous, unregulated firms. Taking these two sets of clients in turn:

(i) Clients with sufficient understanding, and a legitimate need to trade

CFDs fulfil an investment need for retail clients, in that they allow client to access market risk simply, cheaply and conveniently. The client may purchase this risk to offset an existing risk on their wider investment portfolio or economic exposure (i.e. to hedge) or they may purchase this risk to establish a standalone speculative position. Both are legitimate reasons to trade CFDs, provided the client in question has sufficient financial resources, an accurate understanding of the risks involved and, if trading speculatively, an accurate understanding of the likelihood that their speculative activity will prove profitable. In Appendix 1 we present evidence that demonstrates IG clients have, in general, an extremely accurate understanding of these issues.

If the CBI were to ban the distribution of CFDs those Irish retail clients with a good level of understanding, and sufficient financial resources, would be disadvantaged

by being unable to cheaply and conveniently hedge their economic exposures or create standalone speculative exposures. We therefore do not believe that prohibiting the sale or distribution of CFDs would be conducive to good client outcomes for this very specific class of retail client.

(ii) Vulnerable clients

A ban on the sale and distribution of CFDs would be respected by responsible, regulated firms and would be ignored by irresponsible, unregulated (or lightly regulated) firms based outside the EEA. The withdrawal of responsible firms would lead to the cost of online marketing dropping dramatically for unscrupulous unregulated firms, who would swiftly dominate the market. This is exactly what has occurred in Belgium since that country's regulatory authority introduced a ban. These firms will not be under the control or influence of the CBI and are likely to employ a variety of business practices (spurious account opening bonuses, ultra-high leverage, high pressure sales techniques and poor trade execution) that will encourage vulnerable, unsuitable clients into self-destructive behaviour, generating a constant stream of very poor client outcomes. The best defence against such firms is to ensure their voices are drowned out by responsible firms that follow the rules set out by the CBI and other EEA NCAs. This is the case even if vulnerable clients are not targeted by, and are not given accounts by, these responsible firms (and we think a key part of what makes a firm responsible is that it systematically blocks potentially vulnerable clients from trading). The key point is that the online spending of responsible firms, in the attempt to recruit clients from the small, wealthy, well-informed subset referred to in point (i) above, raises the cost of marketing CFDs for all firms, regardless of target client.

Please see Appendix 2 for a summary of the impact of the marketing ban recently implemented in Belgium, together with a comparison with the more proportionate marketing restrictions introduced in France.

2. In relation to Option 2:

a) Do you agree with the proposal to restrict leverage to 25:1 for retail clients trading CFDs? Please give reasons for your answer.

We support the introduction of proportionate leverage restrictions. We believe firms should not compete on leverage, and that the ultra-high leverage that can result from such competition artificially inflates the probability of a client losing money on any individual trade.

However, we disagree with the CBI's proposed maximum leverage restriction of 25:1 across all asset classes. We think any rational leverage restriction must take account of the underlying asset class in question, and that 25:1 is disproportionately severe for certain asset classes whilst being insufficiently robust in protecting clients trading other asset classes.

We think the numerical analysis included in CP107 does not offer adequate support for the proposed blanket, multi-asset class leverage restriction. We say that because it relies on a

number of assumptions that are either arbitrary or are clearly unrealistic. We set out our detailed objections to the analysis's methodology in Appendix 3.

Our analysis of the issue is included in Appendix 4. Leverage *per se* is not disadvantageous to clients. Rather, poor outcomes are generated by the interaction of high leverage and transaction fees. Specifically, where transaction fees are of the same magnitude as the deposit supporting a position, the probability of a client being "stopped out" at a loss increases dramatically, and will be far beyond the probability of suffering a loss that a client with a given set of risk preferences should reasonably expect.

It follows from this that leverage restrictions should vary with asset class. Certain high volatility, high transaction fee asset classes (such as individual equities) merit a much tighter leverage limit than that suggested by the CBI (our analysis suggests 10:1). Conversely, low volatility, low transaction fee asset classes (such as broad equity indices and FX rates) merit a far less restrictive limit (our analysis suggests between 100:1 and 200:1 would be fully effective in these cases).

We know that leverage is considered by CFD clients to be the product's single most important feature (please see Appendix 5 for evidence supporting this point). Because of this we believe care must be taken not to impose undue restrictions that could have the counterproductive impact of driving clients toward unscrupulous, unregulated overseas firms of the type outlined in the answer to question 1, above. We think a client weighing up the relative merits of a regulated firm offering leverage of, say, 100:1 and an unregulated firm offering leverage of 200:1 will tend to favour the regulated firm. We are much less sure that clients will make the same decision if the leverage offered by the respective parties is 25:1 and 200:1.

IG currently offers leverage of up to 200:1 on equity indices and FX rates, and we provide evidence in Appendix 6 that leverage of this magnitude has no measurable adverse impact on (i) probability of winning or losing, (ii) the expected size of client positions or (iii) the expected size of client P&L over any given window of time.

b) Do you agree with the proposal that retail clients trading CFDs should not be at risk of potentially limitless losses and that firms offering CFDs should be required to put in place negative balance protection on a per position basis? Please give reasons for your answer.

We believe that the majority of clients should be given negative balance protection on a per position basis.

Trading on a position-by-position Limited Risk Account ("**LRA**") not only protects clients from losses in excess of their margin on a position by position basis, it also forces less sophisticated clients to explicitly consider and acknowledge their financial risk on each position every time they place a trade, and, given the need for a guaranteed stop to be placed, greatly encourages them to consider possible exit strategies at the time of entering a position, a factor which we believe encourages more thoughtful, less impulsive trading. In Appendix 7 we present evidence from our own database that supports this point, and also demonstrates that LRAs do not encourage migration offshore, do not lead to problematic trading behaviours and can be structured such that they do not import additional transaction costs upon the clients using them.

However we note that some experienced traders do not require this level of protection, and that such protection is actively unhelpful in certain circumstances (such as when a CFD position is established for the purpose of hedging a wider investment portfolio). Because of this we believe that a subset of clients with significant financial resources and a high level of experience and understanding should be allowed to trade without such protection, should they wish to do so.

c) Do you agree with the proposal to prohibit all bonus promotions and trading incentives in relation to CFD client accounts? Please give reasons for your answer.

We do.

Our only caveat to this is that we believe this should be limited to bonuses contingent on account opening (and/or funding). As we believe that volume based rebates (“VBRs”) paid to active clients are acceptable market practice, as they are not designed as an account opening incentive, nor are they an incentive aimed at inexperienced clients who need extra protection. Rather they are a discount offered to loyal, experienced customers and are given as a matter of commercial judgement if requested, in order to retain the business of a particular existing client.

Incentives like this are not actively marketed, their economic impact on clients is clearly positive and the client experiencing that impact has actively requested the VBR and is overwhelmingly likely to be an experienced trader with high levels of understanding. The only desired behavioural impact is that, to the extent a client trades, they choose to continue to trade with the provider with whom they have negotiated the VBR. We think this kind of arrangement represents an entirely standard commercial negotiation found in almost all sectors, and is in fact a form of commercial flexibility necessary in all well-functioning and competitive markets. We are unaware of any evidence linking VBRs with poor client outcomes among CFD traders.

d) Do you agree with the proposal to require firms offering CFDs to retail consumers to provide a standardised risk warning to clients disclosing the percentage of active retail CFD clients who suffered a loss of equity during the previous quarter and over the previous 12-month period? Please give reasons for your answer.

We strongly support the disclosure of these statistics, and think doing so will be invaluable in counteracting misleading marketing carried out by irresponsible firms, and ensuring that all CFD clients are appropriately informed about the risks they may be taking.

However there are some points that we would ask are taken into consideration:

i) Ensuring information is meaningful and not easy to manipulate by firms

We ask that should the CBI implement this risk warning, clear, unambiguous guidance is provided as to what should be incorporated into the profit or loss calculation in order to prevent unscrupulous firms from misrepresenting the number of clients that made a loss.

In particular we suggest that if the CBI were to implement this risk warning it carefully considers the fees and charges that it believes should be included. We think care should be taken to include all outcomes generated by trading activity but to exclude “interest payments”, “goodwill payments” and other such payments that an unscrupulous firm might apply to dormant clients or clients with small losses in an effort to distort their statistics. We also think the CBI should explicitly exclude payments made by clients for ancillary services. Some firms provide clients with high quality real time exchange data and premium 3rd party charting and analysis packages. These services often cost clients a small fee but are part of a responsible client offering aimed at eliminating all potential forms of informational asymmetry and poor risk control, are often used by clients in support of investment decisions affecting their wider investment portfolio and should not be disincentivised by the CBI. The fees incurred in buying these services are not in any sense a reflection of the leverage inherent in the CFD product therefore it is not logical to include such charges when generating statistics to drive a risk warning aimed at alerting clients to the risks of leveraged CFDs.

We believe that the CBI should make it clear that it is interested in figures at a client level, as opposed to on an account basis. If the CBI were to allow firms to provide statistics on an account basis this could be exploited by firms offering each client more than one account on which they may transact their business. The profitability or unprofitability of an account is chiefly a function of the number of trades placed on that account over a given window of time. Any definition focussed on account level, rather than client level, analysis means firms will be able to manipulate these statistics by segregating a client’s trading across a number of accounts, by asset class choice or other means. Each account will contain a lower number of trades in any given period and will register a misleadingly high probability of profitability, relative to that client’s true overall performance. Profitability statistics must be calculated at the client level, not at the account level.

Another concern that we have with this risk warning is that the disclosure of profit and loss figures may cause retail clients to make unintentionally poor purchasing decisions based solely on these disclosed profit and loss figures, ignoring important factors like a firm’s transaction fees, product range or platform features. We believe there are a number of factors that could influence a given firm’s profit and loss figures that will not have any bearing on an individual client’s profit or loss likelihood. Examples of factors influencing a firm’s win/loss ratio include small sample sizes, general bull or bear market conditions, a higher than usual number of single asset class traders, a higher than usual number of passive carry traders, or a higher than usual share of lightly-traded secondary accounts. We therefore suggest that profit and loss disclosure is accompanied with mandatory guidance to readers that win/loss ratios should be considered when making a purchasing decision but that a number of factors will influence win/loss ratios, and that win/loss ratios should not be the only factor that clients consider when choosing a provider.

ii) Poor client targeting and disproportionate costs for affected firms.

The CBI has suggested that the risk warning should be published on the firm’s website and on all marketing communications. We believe detailed guidance on this issue should be carefully composed in order to avoid imposing disproportionate

costs on firms, and to avoid habituating clients to the message because of over-repetition of the warning. For example, we believe it would be disproportionate and unhelpful to clients if the CBI were to ask that the risk warnings was put onto each page of a website, particularly on a mobile device when such a warning would take up a significant proportion of the users screen.

It is our view that the most powerful way to deliver the profit/loss risk warning to clients would be to serve the warning at the point of first considering CFD trading, and then again at the point of actual account opening, and not by continuously disrupting websites and mobile applications that are heavily used by existing clients (who, our survey evidence proves, have a very good appreciation of the risks and likely outcomes of CFD trading).

A prominent pop-up warning on the main landing page of the website on the occasion of a consumer's initial visit, on which the consumer must click before uninterrupted access to the site is possible, coupled with serving this prominent warning at the key, pivotal point at which an applicant initiates the account opening process, would ensure beyond doubt that clients are aware of the risks of CFD trading and the probability of trading profitably, and would not impose a disproportionate burden on the normal business of firms.

With regard to mobile devices, we suggest a similar approach, except that firms should be allowed flexibility where the proposed warning is likely to exceed 30% of screen space. In such cases we think firms should be permitted to serve an abridged warning, where detailed quarterly and annual statistics are omitted in favour of a clear link to a page or part of the mobile application where these statistics may easily be found.

3. Are there any further measures which the Central Bank should consider as part of its analysis? Please give reasons for your answer.

We believe that it would be sensible for the CBI to consider the effectiveness of firms' appropriateness assessments, and to consider ruling that firms should not be able to provide CFDs to any clients for whom they are inappropriate. At IG we are already beginning to implement this, and have a project underway to remodel our appropriateness assessment throughout Europe that is already live in some geographies. The new assessment is designed to be above and beyond the good practices outlined in the recent ESMA Q&A. It requires applicants with no experience to demonstrate knowledge (via a knowledge test), rather than just self-certify understanding. In addition, following the remodelling of our appropriateness assessment, IG no longer provides services to applicants for whom our products are deemed inappropriate. We believe that this serves as an effective means to protect those clients that need it, whilst allowing experienced traders to gain access to the financial markets in a cheap and effective way either for hedging or speculative purposes.

Another measure that can easily be taken by firms that successfully protects the most financially vulnerable retail clients, is to prevent clients who have low levels of income and savings from accessing CFD trading. At IG we have always had a wealth bar in place, preventing those with very low income and/or savings from accessing our services and we

are in the process of increasing our wealth bar to ensure that only applicant clients who have earnings & savings well above the average person are able to access our services.

4. In relation to the options outlined in this paper, are there any detrimental effects on investors or the markets or unintended consequences that you consider should be taken into account by the Central Bank. Please give reasons for your answer.

Our primary concern is that the introduction of disproportionate protection methods will encourage clients to go to offshore firms, those firms who the CBI cannot prevent from targeting clients in an inappropriate fashion, making false claims within their advertising. If Irish or EEA firms are made undesirable to clients, or if the advertisements of unscrupulous firms are more able to entice clients, then clients will give their business to these firms. This of course has poor outcomes to the clients and to the Irish economy as jobs and money move outside of Ireland.

5. What do you consider will be the likely effect of the options outlined in this paper on investors and market participants who may hold, use or benefit from CFDs? Please give reasons for your answer.

With regard to Option 1 (the prohibition of the sale or distribution of CFDs to retail clients in Ireland) the effects will be significant and we believe to the detriment of retail clients. We have found that the majority of IG clients understand the risks of CFDs and are satisfied with the product and the service they receive. Preventing the distribution of the product will prevent clients who understand the product from having access to the financial markets in a cheap and convenient way for either speculative purposes or to hedge against other investments they may have, as well as exposing all consumers to an increased level of marketing by unscrupulous, unregulated overseas firms. It is also a likely consequence that Option 1 would result in job losses and loss of income at the 19 Irish firms and the 18 Irish branches of incoming firms.

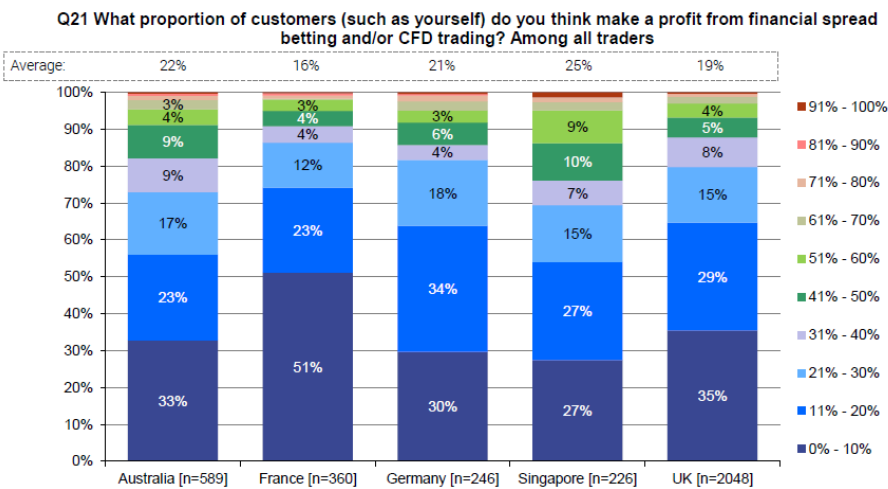
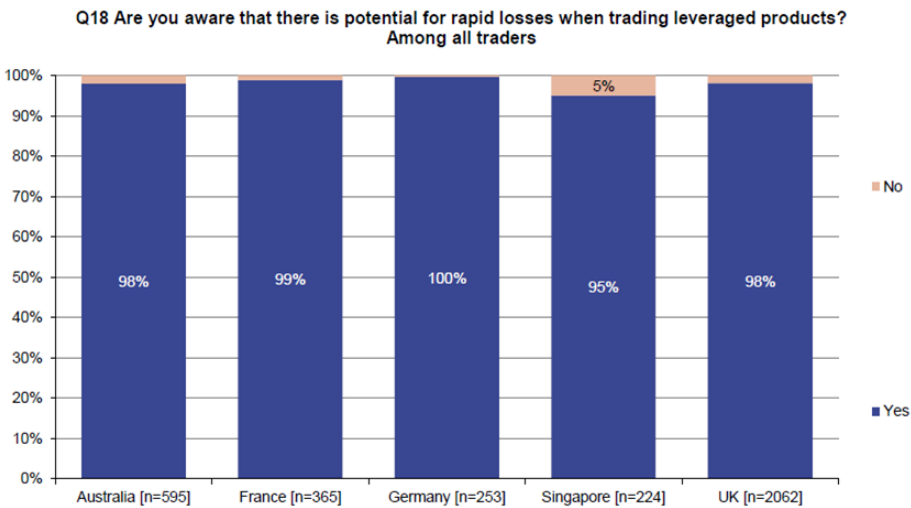
With regard to Option 2 we believe that ensuring clients are fully aware of the risks that they may be exposed to when trading CFDs, including the likelihood of the activity being profitable, is a sensible investor protection measure, as is the prohibition of account opening bonuses. We believe that the implementation of negative balance protection in the right way provides an extremely useful investor protection tool, preventing clients from losing more than they have deposited into their account and ensuring they are comfortable with the level of risk that they are taking. With regard to the suggested leverage restriction, we think this restriction is inadequate in some cases (e.g. for clients trading CFDs on individual equities) and counter-productively disproportionate in others (e.g. for clients interested in hedging with, or speculating on, equity indices and FX rates). The suggested restriction fails to adequately protect the first class of client, while driving the second class into the arms of offshore, unregulated firms. We believe the CBI could maximise Option 2's positive impact on consumers by revising this element of the proposals to set leverage restrictions that are both proportionate and appropriate to the asset class concerned.

Appendices

Appendix 1: Client understanding of risk

We asked a 3rd party, Investment Trends Ltd, to survey our clients in our five largest markets about our products, and about their trading. This survey included questions designed to probe their level of understanding of the risks of leveraged trading.

The results demonstrated that our clients have a high awareness of the risks of CFD trading. Globally, 98% are aware of the potential for rapid losses when trading leveraged products. They are also well informed on the likelihood of trading profitably, with 92% being of the opinion that most traders lose, and almost two thirds being of the opinion that the proportion of losers exceeds 80%. Though we recognise other firms may be deliberately targeting a less sophisticated consumer, we do not believe the generality of clients across the industry are materially less well informed about these issues than our clients.



Appendix 2: Case Studies in Marketing Bans: Belgium and France

In recent months various measures have been taken by the FSMA in Belgium, and the French government and the AMF in France, aimed at restricting the marketing of CFDs to retail clients. These measures are relatively new, so whilst it may be too soon to draw firm conclusions, there are indications that the more proportionate response by the AMF is proving to be more successful.

In Belgium, we have reviewed data showing advertising spend on Google (“pay per click” or “ppc”) for the FX, CFD and binary industries. We can see that spend fell sharply in September last year when the measures were implemented. However, spend subsequently rose and peaked close to levels seen before the prohibition. From our analysis, we can see the majority of firms paying for advertising on these keywords are unregulated or subject to less effective regulation. Generally speaking, firms which are authorised and effectively supervised in their home-state have withdrawn from the market in the country – they no longer advertise, offer or distribute such products in Belgium. You will note, for example, that IG Markets Ltd withdrew its cross-border MiFID permission into Belgium. We do not advertise or distribute products in Belgium, but if a client approaches our UK office through reverse enquiry, we will, subject to their level of understanding and financial means, on-board them into our existing FCA regulated account. We choose to set leverage limits at responsible levels and for some clients mandate they can only open a Double Lock Limited Risk Account¹, but there are other providers who will offer leverage of 500:1 or more to these clients, without Double Lock Limited Risk protection.

In contrast to IG’s approach, there are other firms who flout the law by advertising in Belgium. **It would appear that the overall volume of advertising in this sector in Belgium has not fallen, simply shifted from the compliant to the non-compliant/scam companies.** It unfortunately follows that the firms who disregard the FSMA prohibitions are those who also disregard pre-existing law or conduct of business regulations. We note that FSMA’s warning published 23rd March about firms still operating in Belgium did not contain any FCA regulated firms. The ability of unregulated operators to gain market share is greater now that well-regulated firms have withdrawn their presence – leading to far worse outcomes for consumers who would still like to access this product.

From our experience on the ground, we are cautiously more optimistic about the progress made by the AMF following the implementation of Sapin II. We can see two reasons for this.

- The civil liability and financial penalties that can be imposed on media outlets who publish non-compliant advertisements will have a beneficial effect on its success (as well as sanctions for the firms). We strongly believe that marketing prohibitions on financial services firms alone are likely to be less successful unless the publishers are also held to account.
- The marketing restriction is simple, clear and proportionate. It is focussed on CFDs where losses can exceed deposits. This is more proportionate than the overly restrictive proposals - including leverage restrictions above 20:1 - previously suggested in the AMF’s consultation.

We believe the marketing restriction in France will protect consumers with less understanding and is not unduly restrictive from a competitive point of view. As a result we built a specific account to comply with the terms specified in the marketing prohibition. We have taken this one step further

¹ An account where, not only can the equity balance never go negative, but also where a guaranteed slippage-free stop must be placed against each and every open position.

and not only advertise a compliant product, but prevent new clients in France from opening any other type of account.

If the measures adopted by an NCA are proportionate, well-regulated firms will adapt their offering to be compliant. This should act as a competitive barrier to the unregulated or disreputable firms – as the well-regulated firms will also be competing for advertising space and share of voice, drowning out the irresponsible players. Where there is a strong, regulated, competitive side of the sector, such as in the UK, illegal firms find it harder to take market share. For example, when we look at Google PPC advertising in the UK, it is dominated by FCA regulated firms.

If the measures adopted are too restrictive, as is the case in Belgium, all well-regulated firms will, of course, withdraw from the market, giving illegal operators an immediate 'USP' to persuade clients to open accounts offshore. These illegal operators have a track record of targeting uninformed clients with lower financial means, who chase higher leverage to secure smaller deposit sizes.

Appendix 3: Numerical analysis included in CP107

We think the analysis included on pages 10 and 11 of CP107 does not fully support the proposed blanket, multi-asset leverage restriction of 25:1 put forward as part of Option 2.

In our view the work could be made much more rigorous, and would better support the proposal made in the paper, if the following points were to be addressed:

(i) Sample data should be gathered over a longer, more representative period.

The paper does not reveal what 20 day period was used to gather the data on which the work is based. We sampled the same underlying markets over two 20 day periods and, following the methodology of the paper, took the 84th percentile of 3 hour “shocks”. As our data shows, the result is extremely sensitive to the 20 day period that happens to be selected:

	CP107	IG Sample 1	IG Sample 2
EUR/GBP	0.36%	0.35%	0.25%
EUR/USD	0.33%	0.24%	0.14%
GBP/USD	0.38%	0.43%	0.33%
USD/JPY	0.39%	0.25%	0.26%
FTSE	0.58%	0.52%	0.17%

We understand the work is intended to be taken as objective support for the proposed leverage restriction. But the output of this methodology can vary widely depending on the sampling period selected. This weakness could be addressed either by sampling data over a much longer period, or by disclosing the 20 day period used in CP107, with reasoning why this selected period should be taken as representative of typical market conditions, and thus suitable for driving analysis used to set policy.

(ii) The parameters used to generate the output of the work should not be arbitrarily selected.

Though we appreciate the 84th percentile represents a single standard deviation of the standard (unit) normal distribution, we think using this benchmark as the definition of a shock is slightly arbitrary. Similarly we are not clear why a 3 hour period should be used as the standard window over which to measure shocks.

It is an obvious, and trivial, fact that it is possible to generate an infinite series of different “typical” shocks for the markets in question simply by varying the length of time used as a shock window, and/or by varying the percentile of the resulting distributions used to define what a shock is. To give an example, in our own analysis the value of an 84th-percentile shock in EUR/GBP (over the arbitrary 20 day period we happened to select in this case) was 0.14% over a window of 30 minutes, 0.21% over a window of 1 hour, 0.35% over a window of 3 hours and 0.45% over a window of 6 hours.

We think the work could be made far more powerful if the CBI were to advance reasoning that supports the choice of parameters used in the analysis.

(iii) The possibility of clients experiencing positive market shocks should not be ignored

We think there is limited utility in producing an analysis on the impact of leverage without some acceptance of the potential beneficial impacts of high leverage on a client. The analysis in CP107 provides a list of leverage levels, by instrument, required to completely eradicate 50% of margin with one typical shock move but does not mention that a typical shock move is exactly as likely to go in a client's favour as it is to go against a client. Moves that go in a client's favour will produce profits that, absent transaction costs, completely offset expected losses. This is true at any level of leverage.

Overall client performance is driven by the interaction between profits, losses and transaction fees, and how that interaction varies with increasing leverage. The analysis in CP107 could be made far more powerful if this central question were to be addressed. Instead the work focuses on the point that, for some fixed amount of margin, higher leverage increases the probability of that margin being exhausted in a single adverse market move of some given size. Without balancing this against the equal and offsetting increase in the probability of margin being rapidly increased by identical but favourable moves, and the overarching negative impact of cumulative transaction fees, this observation is of limited relevance to setting a rational level of leverage restriction.

(iv) Typical client behaviour should not be disregarded

The work does not consider choices open to a client during any hypothetical 3 hour window. Effectively it analyses a single one-shot game, where clients trade to the maximum size allowed by their available margin and allowable leverage and, in the case of an adverse market move, hold their positions until that margin is exhausted. Our clients do not trade like this. **Over the course of 2016 fewer than 2% of client positions at IG were automatically closed out for reasons of shortage of margin.** Yet the structure of the analysis in CP107 appears to assume that such automated close-outs are common industry practice (and driver of revenues), an assumption made explicit in paragraphs 2.12 to 2.16, a series of paragraphs that paints a picture of our industry that we do not recognise.

The work could be made much more powerful if it were to focus on the typical impact of leverage on clients behaving in a realistic manner, rather than being structured around a hypothetical case that rarely occurs in reality.

(v) The asset class under discussion should not be disregarded

The work analyses markets representing three distinct asset classes but does not accurately assign realistic transaction fees in each case, assuming instead a blanket fee of 0.03% of notional value, a fee that is far too high in the case of FX and far too low in the case of individual equities. Given that transaction fees are the fundamental driver of client outcomes, we think this is a significant weakness.

Despite making this blanket assumption, the results show a clear variation between FX, equity indices (i.e. the FTSE) and individual equities (i.e. Amazon), with the leverage required to eradicate 50% of initial margin being three times higher for EUR/USD than

for Amazon. This clear variation is unremarked upon in the commentary describing the work and, of course, not reflected in the blanket 25:1 leverage restriction proposed in the main body of the paper.

We think the analysis could be made more thorough by paying greater attention to the difference in output between asset classes. In particular we think the approach has produced a proposed leverage restriction that is not strict enough to fully protect clients trading CFDs on individual equities whilst being counterproductively aggressive in the case of CFDs based on FX and equity indices.

Appendix 4: An alternative approach: an asset-specific leverage impact model

In the absence of transaction fees, trading on even the highest leverage has no effect on (i) a trader's average P&L or (ii) their probability of winning on any given trade, or series of trades.

Absent transaction fees, a trader's average P&L is always zero. A trader's probability of winning a trade is driven entirely by their appetite for a large profit, relative to their tolerance for loss. The higher this appetite, the lower their probability of winning but the more they will win if the trade works out. In general our clients have a low appetite, leading to the result that most of their trades make money (but average profit size is smaller than average loss size). This would be true even if we never charged spread, commission or funding.

A trader who is willing to suffer a loss of €100 (or willing to deposit only €100) but will only take profits when they have a position that is winning €1000 will lose 10 times for each time they win. Net P&L = €1000 - (€100*10) = 0.

A trader who is willing to suffer a loss of €100 (or willing to deposit only €100) but will take profits whenever they have a position that is winning €10 will win 10 times for each time they lose. Net P&L = (€10*10) - €100 = 0.

It does not matter how high or low the leverage involved is, or how volatile the underlying market. This line of reasoning always applies in an efficient market. Without it a trader could derive infinite profits simply by selecting the "correct" target-win-size-to-loss-size ratio and placing an infinite series of trades with appropriately-distanced stop and limit orders against each one.

Transaction fees change this picture and drive the poor client outcomes that the CBI is rightly concerned about.

Average client losses on any given trade or series of trades will, on average, be the sum of transaction fees paid (spread, commission and funding) over that trade or series of trades.

The probability of a client winning any given trade, or series of trades, remains primarily a function of their preferred take-profit size, relative to their tolerance for losses. However, trading fees reduce this probability of winning. At most levels of leverage, this reduction in probability is very small.

In cases of extremely high leverage, the transaction fees faced by the client begins to approach the value of the deposit charged. In these extreme cases, the probability of a client winning on a trade is materially distorted.

The average client loss on a highly leveraged trade will still be equal to transaction fees, on average. This is invariant to leverage, for a given characteristic trade size, and represents the price paid by a client to buy a desired market exposure. However, under extreme leverage they will not be getting value for money for these fees. **They will lose much more often (and win much more rarely) than they should expect, given their profit-to-loss size preferences. This is how extreme leverage results in a poor client outcome.**

We can accurately model the size of this distortion of winning probabilities.

Define:

Round-trip transaction fees on trade = expected client loss on trade = s

Probability of losing trade = l

Deposit supporting trade = p

Targeted winning amount, as a multiple of deposit = r

Assume a trader will hold a position until either they lose their entire deposit or they are winning an amount equal to $r \times p$.

These variables are related as follows:

$s = [\text{probability of losing deposit} \times \text{size of deposit}] - [\text{probability of profit} \times \text{size of profit if it occurs}]$

$$s = lp - (1-l)rp$$

Or

$$l = (s+rp)/(p+rp)$$

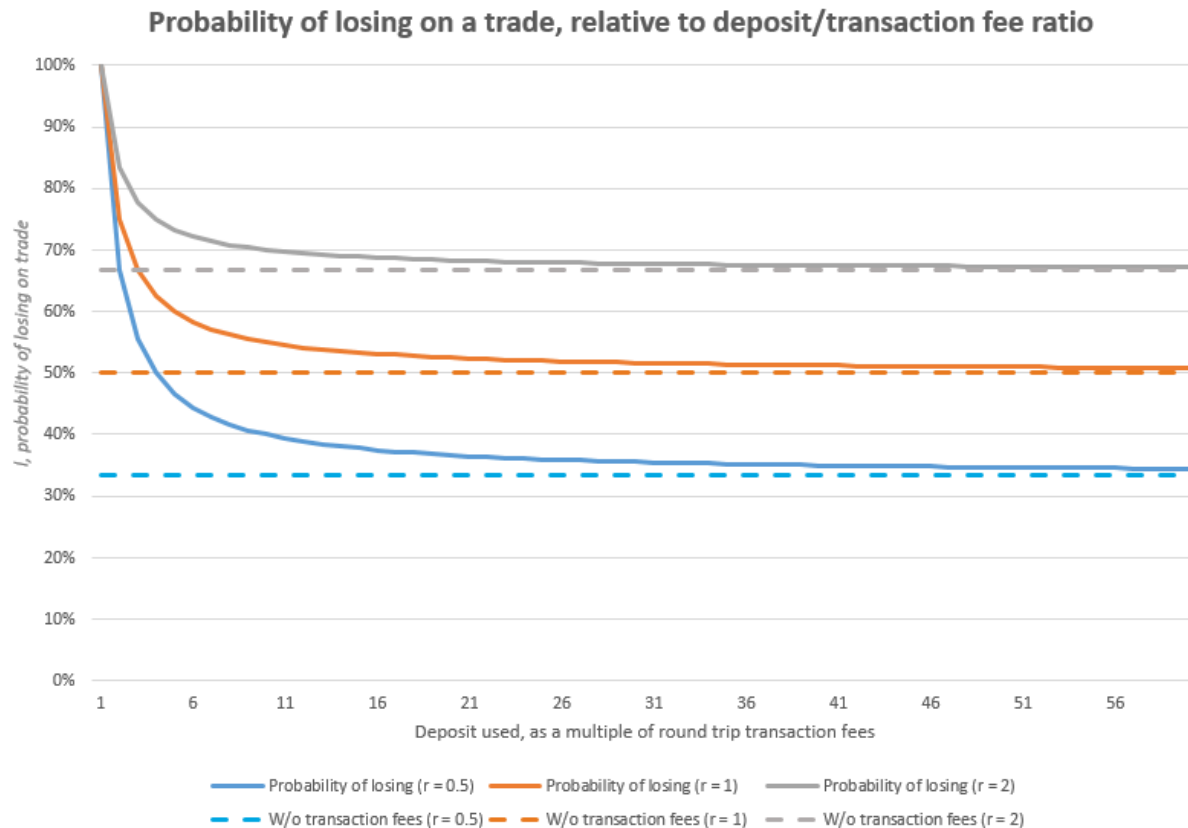
Or

$$l = (1+rx)/(x+rx)$$

(If we define the deposit used by the client in terms of multiples of transaction costs faced by the client ($x = p/s$)).

We can plot a chart of l for a range of different values of x and r .

When we plot l , the problem becomes clear:



Each horizontal dotted line shows the correct probability of loss for a client with a certain strategy, in an efficient market and in the absence of transaction fees:

Grey: Client aims to take profit of twice their deposit ($r=2$). Client therefore loses on 67% of occasions.

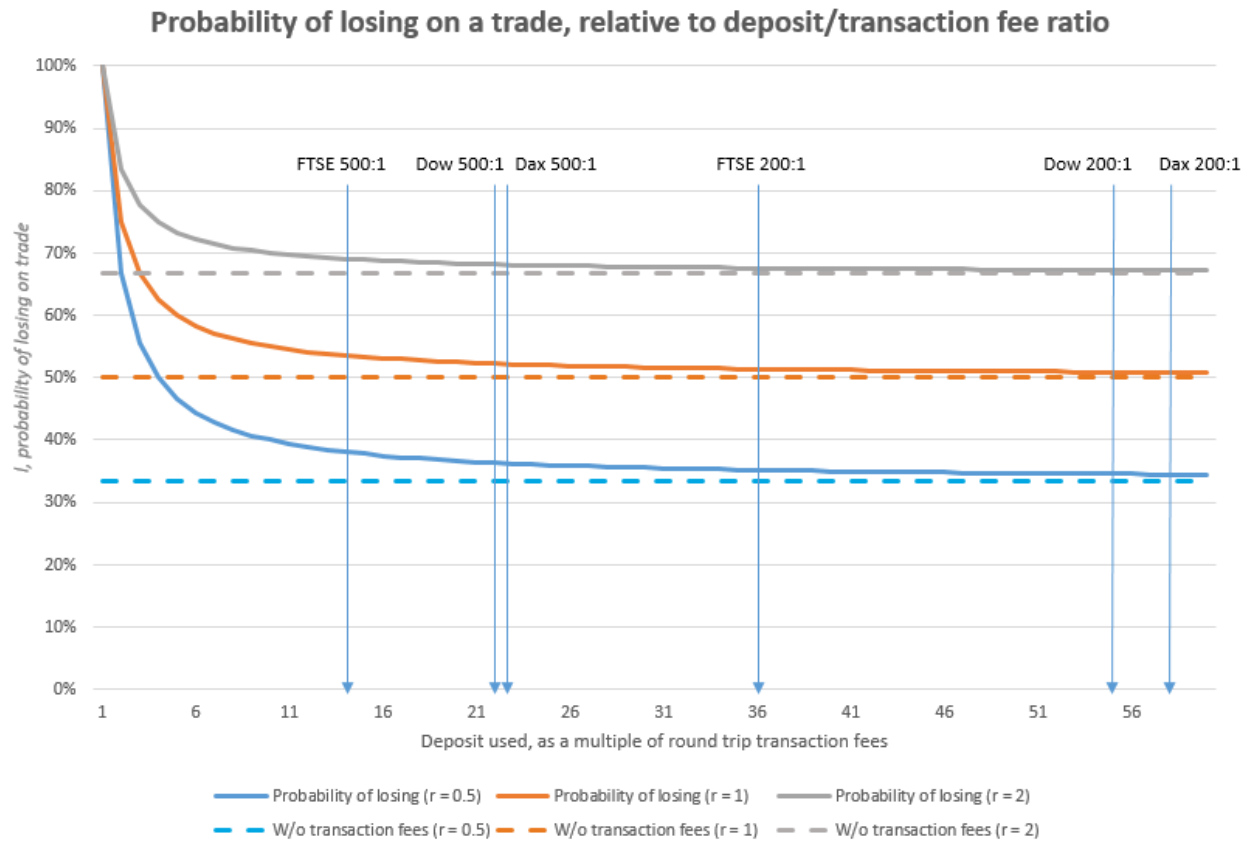
Orange: Client aims to take profit of equal size to their deposit ($r=1$). Client therefore loses on 50% of occasions.

Blue: Client aims to take profit half as large as their deposit ($r=0.5$). Client therefore loses on 33% of occasions.

The equivalently coloured solid lines show what happens when transaction fees are brought into the reckoning. It is clear that, when the deposit used is of the same order of magnitude as the transaction fees charged, the probability of losing on a position diverges from the costless trade probability, dramatically so as the {deposit size}:{transaction fees} ratio shrinks below 10:1. In extremis, when the ratio is 1:1 (i.e. deposit used is equal to transaction fees) the client is instantly stopped out as soon as they trade, 100% of the time and has no possibility of profiting, regardless of trading strategy.

This effect is **independent of market volatility**. The analysis is constructed around client outcomes, not around assumptions of counterparty credit risk. The distortion of win/loss probabilities is driven wholly by transaction fees in each market and the client's deposit size and take-profit strategy.

We have marked on the chart below vertical arrows representing the deposit/transaction fee ratio for a client trading 3 different markets (FTSE, Dow and Dax), using a deposit size that is equivalent to each indicated leverage ratio and paying IG's typical transaction fees. A market with a relatively high transaction fee, traded on very high leverage, puts clients into a position where their chance of losing is significantly higher than it ought to be, and significantly higher than they might expect:



We believe our leverage limit of 200:1 on major indices protects clients from a distorted win/loss probability even for a market with a relatively large transaction fee (FTSE).

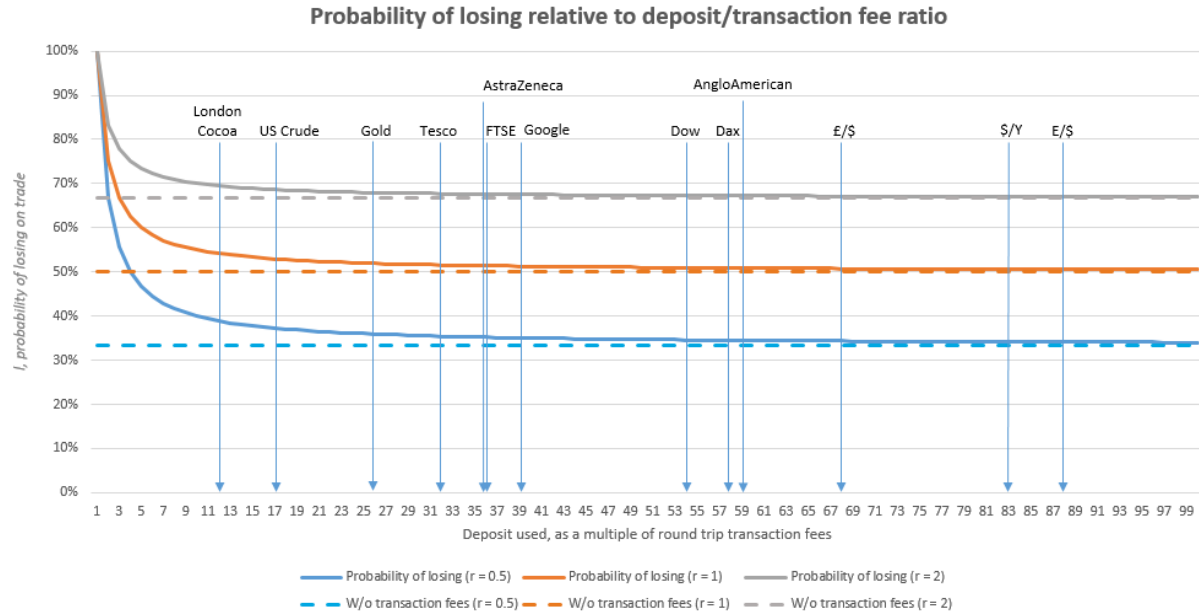
Any firm that allows ultra-high leverage, and/or significantly increases apparently low transaction fees by charging very high overnight funding or “admin” charges is effectively forcing clients toward the danger zone at the left hand edge of the chart. This is an example of poor practice that is intuitively easy to understand, even without this theoretical framework, as a “churn and burn” business model.

Zooming out, as we do in the table and chart below, it can be seen that the further mitigation provided by the extreme leverage restrictions proposed by the CBI is minimal. There is no meaningful impact on client outcome, defined as a distorted loss probability, from tightening leverage beyond 100:1, even in the most sensitive case of considering the FTSE traded with a strategy where $r = 0.5$ (in reality, r is around 0.8 for a typical IG client):

FTSE, r=0.5	
	Probability of losing trade
Costless Trade	33%
500:1, with fees	38%
200:1, with fees	35%
100:1, with fees	34%
50:1, with fees	34%
25:1, with fees	34%



We carried out this analysis across IG's product range, to examine the interaction between costs and leverage for products other than equity indices:

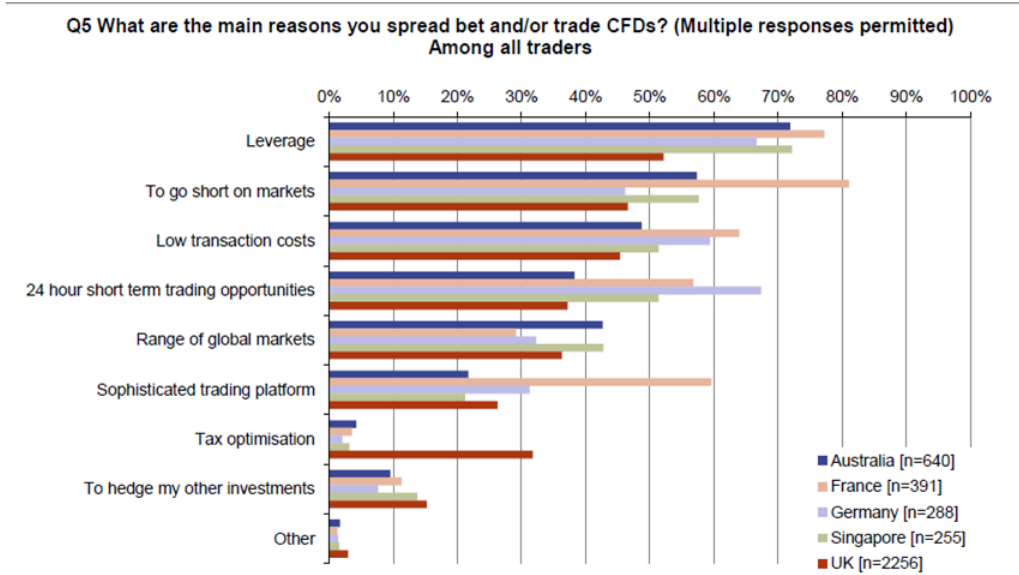


It can be seen from this that, barring some commodities with high transaction costs, IG's current maximum leverage regime on key products (200:1 in major indices and FX, 20:1 for major equities, 10:1 down to 4:1 for smaller equities) protects our clients effectively, given the current level of our transaction fees.

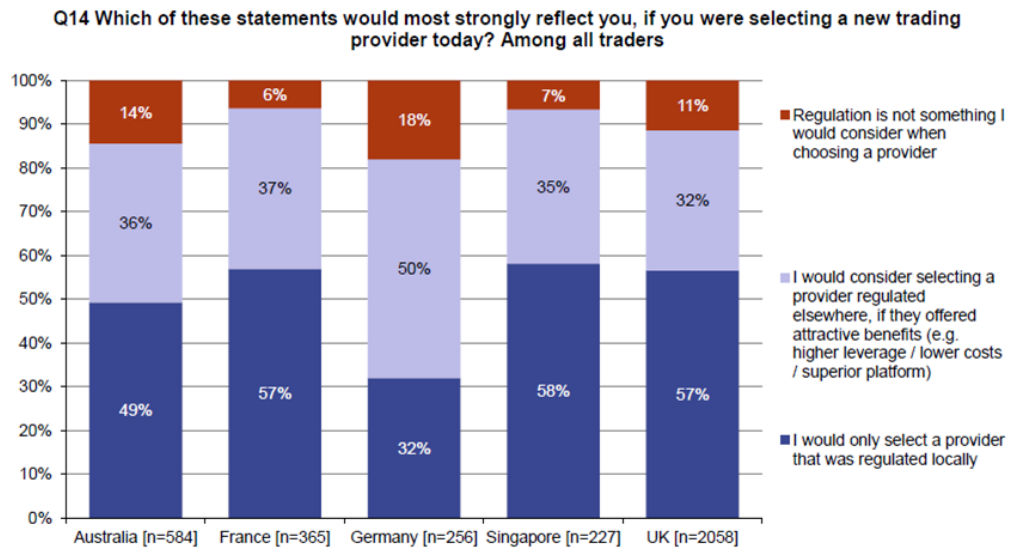
Since first carrying out this analysis we have revised our transaction fees and margin rates on our commodity CFDs, removing them from the corrosive "churn zone". If the CBI is minded to act on leverage, we note that, given this analysis, and given the competitive nature of transaction fees in the CFD industry, **a maximum leverage of 100:1 on equity indices, 100:1 on FX, 40:1 on commodities and 10:1 on individual equities would unambiguously place all CFD products, industry-wide, outside the corrosive zone where probability of winning a trade departs significantly from the theoretical probability in the absence of fees.**

Appendix 5: Importance of leverage to clients

Our survey results on clients in our key markets reveal that leverage is the single most important reason for trading the product, and that 46% of them would be willing to migrate their business to a firm in another jurisdiction if benefits such as higher leverage were available:



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Note that we believe that IG clients are likely to be more sophisticated than the average trader in the industry and therefore more cognisant of the existence and role of the regulator and the importance of trading in a regulated environment. We would expect the younger and less well informed consumers currently aggressively targeted by offshore firms to be far more willing than IG clients to ignore the regulatory status of a firm when choosing a provider.

Appendix 6: Impact of leverage on IG's clients

Impact of leverage regime on mean trade size

The table below gives the average leverage used by IG clients, and average notional size of trade, in the UK and Ireland (unrestricted leverage), Singapore (restricted leverage) and Japan (very restricted leverage).

	Average Leverage Used	Average Position Size
UK & Ire	33:1	£74,232
Singapore	24:1	£73,751
Japan	12:1	£74,435

Note that in all cases IG clients do not tend to trade up to the maximum size allowed or, put another way, make the minimum deposit allowed (although these average measures do not capture the fact that, for instance, ~38% of UK clients make use of 100:1 leverage from time to time).

Note also that **the average position size of clients is not reduced by applying progressively more restrictive leverage rules**. Clients respond to leverage restrictions by depositing more money (or, for less wealthy clients, by going offshore and disappearing from our sample), not by reducing their characteristic trade size. This directly contradicts the assumption that leverage restrictions are an effective lever in reducing the trading activity of retail clients.

Impact of leverage regime on probability of loss and size of loss

(i) Comparison of clients in different leverage regimes

We understand from our conversation with other NCAs that the proposals on leverage restrictions made by many regulatory authorities are motivated principally by examining client outcomes (lower mean losses, lower probability of losing) in Japan (where leverage is heavily restricted) and Singapore (where leverage is restricted) in comparison with outcomes experienced by clients in the EEA.

We believe this approach should be used with caution. Clients in different jurisdictions have different preferred asset classes and different preferred trading frequencies. These different preferences must be controlled for in order to isolate the impact of different leverage restrictions (the preferences are culturally driven and long predate the imposition of leverage restrictions in each jurisdiction).

The most notable issue with this approach is that account must be taken of the pronounced tendency of Japanese clients to engage in the "FX carry trade", where clients establish an FX position where they are short Yen (and thus pay a very low level of interest) and long of a high yielding currency (such as Brazilian Real). These clients very rarely trade, but instead hold static positions where they collect the interest differential on those positions. Because they pay few transaction costs, and receive interest, they tend to be quite profitable over extended periods of time (though can lose enormous amounts once every few years, for example if/when the Brazilian Real collapses against the Yen).

The table below applies a clean analysis of clients trading with IG in three of our major markets over the course of 2016. We have isolated FX traders, to provide an asset class match, and we have

identified and removed carry traders from the population in each country by separating out clients who “paid” negative fees over the year (fees in this context are the sum of bid/ask spread paid, plus funding paid, less funding received on positions with a negative interest rate differential. The only way to achieve a net negative result on fees paid is to be a carry trader).

		Percent of Clients	Count	Median Fees Paid	Mean Fees Paid	Total Fees Paid	Median P&L (inc. fees)	Mean P&L (inc. fees)	Total P&L	% winning accounts
	Japan	76%	4,002	£122	£1,671	£6,685,481	-£211	-£3,431	-£13,731,154	26%
Speculative Traders	UK	99%	38,923	£71	£1,245	£48,458,528	-£74	-£1,375	-£53,521,330	28%
	Singapore	96%	6,079	£222	£3,051	£18,546,977	-£242	-£4,954	-£30,117,723	26%
	Japan	24%	1,283	-£158	-£1,436	-£1,842,073	£75	£1,033	£1,325,797	53%
Carry Traders	UK	1%	409	-£22	-£1,088	-£445,163	£0	-£5,160	-£2,110,429	54%
	Singapore	4%	222	-£137	-£3,486	-£773,870	£0	£6,492	£1,441,120	52%

We think the following points are important:

1. 24% of Japanese FX clients are carry traders, against only 1% of UK FX clients.
2. Once carry traders are removed from the sample for each jurisdiction, leaving a population of speculative FX traders, it can be seen that UK speculative FX traders had **a lower mean loss** than Japanese or Singaporean FX traders, had **a lower median loss** than Japanese or Singaporean FX traders, and had **a higher probability of being profitable** than Japanese or Singaporean FX traders, over the course of 2016.

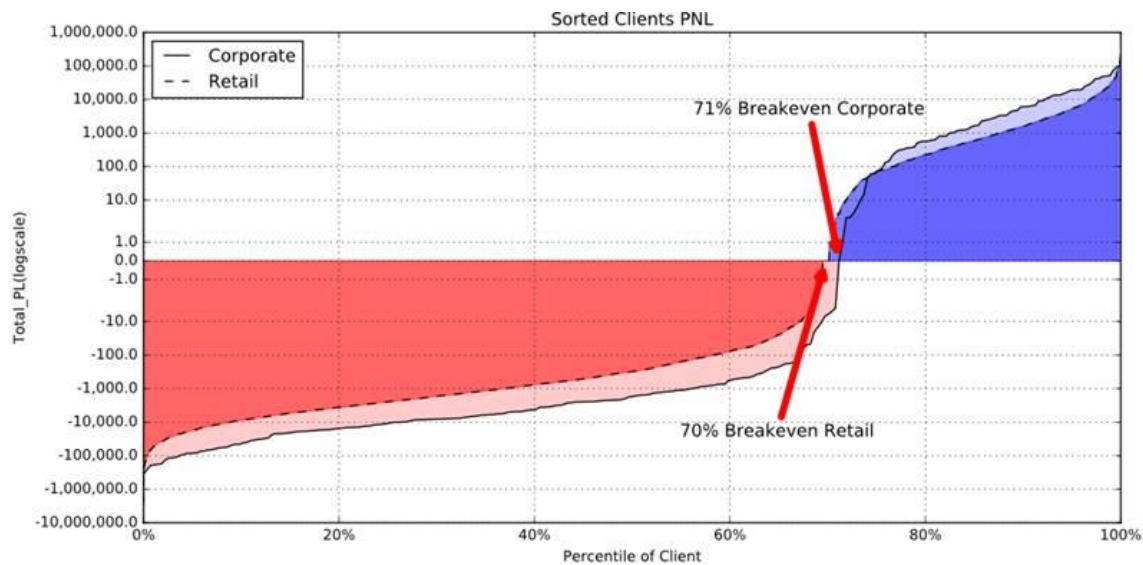
The first point, taken with the fact that FX is overwhelmingly the most popular asset class in Japan, means that overall Japanese client outcomes cannot be compared against overall client outcomes in the UK, or in markets (such as Ireland) which are very similar to the UK.

The second point is inexplicable if, as is frequently claimed, leverage restrictions have a powerful impact on average client losses and the probability of trading profitably.

(ii) Differences in probability of profitability within Japan

We can avoid cultural preference bias by looking within IG’s Japanese client base, and comparing different groups of Japanese clients who are subject to different leverage restrictions.

The chart below shows the distribution of client P&L over the course of 2016 for two groups: IG’s retail Japanese clients (trading on leverage restricted to 25:1) and IG’s corporate Japanese clients (the same kind of retail clients, but who have set up a firm in order to access leverage of up to 200:1).



Note that the probability of being profitable over the year for “corporate” clients (29%) was almost exactly the same as the probability of being profitable over the year for heavily leverage-restricted retail clients (30%).

This finding directly contradicts the conjecture that leverage restrictions have a powerful impact on the probability of trading profitably.

(iii) FX trader probability of profitability

The three extant US OTC FX firms publish statistics on the proportion of winning clients each quarter. It can be seen that the probability of a US FX client (who is subject to a leverage restriction of between 20:1 and 50:1) winning over the course of a quarter is very similar to the probability of winning for FX clients with IG, regardless of the leverage regime in which the IG client is operating:

	Q4 2015	Q1 2016	Q2 2016	Q3 2016	Mean
Forex Capital Markets LLC (FXCM)	30%	28%	29%	33%	30%
Gain Capital (Forex.com)	33%	29%	29%	32%	31%
OANDA Corporation	37%	35%	34%	38%	36%
IG UK (FX clients only)	34%	30%	34%	36%	34%
IG Singapore (FX clients only)	37%	29%	34%	43%	36%
IG Japan (FX clients only)	44%	27%	26%	46%	36%

This finding directly contradicts the conjecture that leverage restrictions have a powerful impact on the probability of trading profitably.

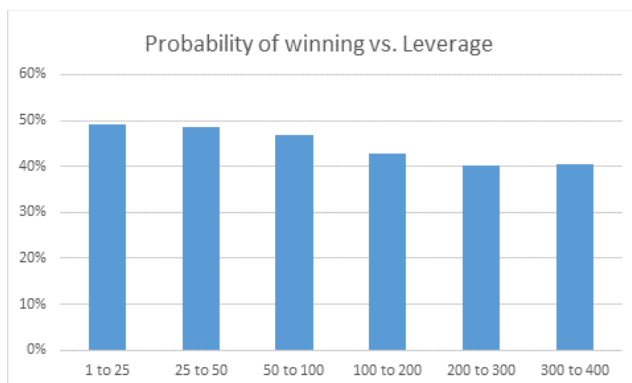
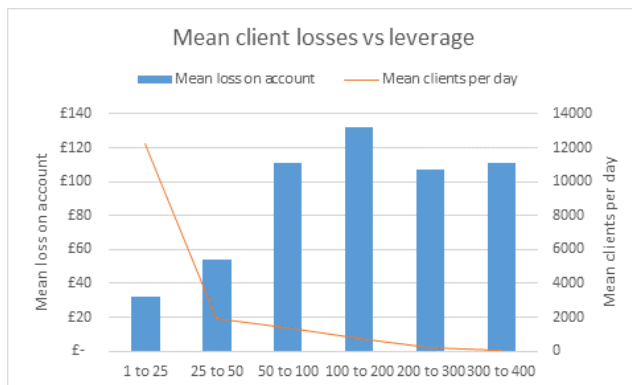
Note that the impact of carry traders in Japan is to cause account profitability probability to swing wildly each quarter, depending on whether the Yen strengthened or weakened over the period.

(iv) Partial correlation between leverage and performance within a single leverage regime

Despite the clear picture painted by the evidence above, it is undeniably the case that, when we look within any single population in the same leverage regime, there is a correlation between higher

levels of leverage use and higher losses, and probability of loss. We investigated this phenomenon as part of our work in responding to the consultation process initiated by the UK's FCA in December 2016.

Our data warehouse is not set up to store the leverage used by a client at the moment of placing a trade. However, we were able to collect daily snapshots of clients, sort them into categories of leverage use at the time of the snapshot and then examine their profitability over the following 24 hours. The results are presented in the two charts below.



There is a correlation between leverage use and higher losses per client, and a correlation between leverage use and lower probability of profit over the following 24 hours.

This correlation is only partial, however. If it is correct to say that leverage is driving higher losses, and higher probability of loss, rather than simply being partially correlated with them because of other factors, we cannot explain why clients trading on 200:1 to 400:1 suffered the same average loss as clients trading on 50:1 to 100:1, or why probability of profitability is almost constant at levels of leverage above 100:1.

Our interpretation of this data is that this is an example of selection bias. Snapshotting leverage use isolates different kinds of client in each leverage bracket. Lightly trading clients such as long term equity traders will hold a large amount of margin on their account (both because shares margin is high and because they will not constantly be watching their screens, so will over-margin to prevent themselves being stopped out). Heavily trading clients like FX day traders will hold less margin, relative to position size, on their account (because FX is less volatile, so attracts lower margin and because they are more closely engaged with their trading, and hence have less need to over margin). Long term equity traders will therefore tend to be disproportionately present in the left-

most bars, and FX day traders will tend to be disproportionately present in the right-most bars. FX day traders will tend to have higher losses, and lower profit probability, because they trade more frequently and pay more transaction fees (spread), not because of their leverage. Higher leverage use is correlated with day trading, but it does not cause day trading, or the outcomes associated with day trading.

Appendix 7: Evidence on Limited Risk Accounts (“LRAs”)

Types of risk protection: a worked example

We believe LRAs can play an important role in protecting clients for whom CFDs are suitable but who may be relatively inexperienced and/or have lower levels of financial resources. However, we think it is important that the right kind of risk protection is provided. We agree with the CBI’s proposal that risk protection should be provided on a position-by-position basis, rather than at an account level.

The panels below demonstrate why we believe this, by offering a comparison of the protective qualities of an LRA compared to a “no negative account” (i.e. an account where individual positions are not protected, but the overall equity balance on the account is guaranteed not to be negative). We assume a market dislocation (a sudden 7% drop) in the spot euro/dollar exchange rate.

On an LRA the client loses only on their EUR/USD position (£710), leaving them with a final account balance of £14,290. Their other positions survive unscathed, as does their surplus cash balance. A “no negative account”, by contrast, results in a loss of £7,490 and a final account balance of £7,510.

Account A – trading on a double-lock LRA

Initial Investment							£15,000
Position	Size/pt	Opening Level	Stop Distance (Guaranteed)	GS Premium (if stop hit)	Margin Required	Premium	
EUR/USD	£10	10700	70	1pt	£700	£10	
Germany 30	£10	11580	60	1.5pt	£600	£30	
FTSE 100	£5	7240	50	1pt	£250	£10	
US Crude Oil	£2	5220	50	4pt	£100	£40	
Sky Plc	£10	980	30	0.70%	£300	£69	
Available to deal					£12,891		
EUR/USD drops 7% over the weekend							
EUR/USD loss						-£710	
<u>Positions closed by IG to cover EUR/USD Loss</u>							
EUR/USD						£710	
<u>Remaining open positions</u>						4	
New Account Balance/Equity						£14,290	

Account B – trading on a single-lock NNA

Initial Investment					£15,000
Position	Size/pt	Opening Level	Stop distance (Non-guaranteed)	Margin Required	
EUR/USD	£10	10700	70	£535	
Germany 30	£10	11580	60	£579	
FTSE 100	£5	7240	50	£181	
US Crude Oil	£2	5220	50	£104	
Sky Plc	£10	980	30	£1,960	
Available to deal					£11,641
EUR/USD drops 7% over the weekend					
EUR/USD loss					-£7,490
<u>Positions closed by IG to cover EUR/USD Loss</u>					
EUR/USD					£535
<u>Remaining open positions</u>					4
New Account Balance/Equity					£7,510

Impact of LRA use on consideration of trade exit strategies

We cannot know the full intentions of a trader when entering a trade. However we can observe their use of stop and limit orders. We believe it is reasonable to interpret the voluntary use of such stop and limit orders, on position opening, as evidence of a planned exit strategy to the trade in question. We observe that clients using our standard accounts leave a take profit limit order against their positions on 13.0% of occasions. Clients using our Limited Risk Accounts are dramatically more likely to use limit orders, leaving them against 18.5% of open positions. We take this as evidence of a significant increase in consideration of exit strategies, driven by the LRA’s discipline

of enforced position-by-position stop use. We contend that greater forward planning of exit strategies is indicative of more thoughtful, and less compulsive, trading behaviour.

LRAs and win/loss probabilities

Data from IG's client base shows that clients trading using an LRA and clients trading on a standard account have the same win/loss probability. This suggests that an LRA does not encourage churning behaviour or other forms of excessive trading that may lead to higher client costs and lower probability of account profitability.

	Double Lock LRA accounts	Standard accounts
Probability of client profitability, 2016	19%	19%

Trades on LRAs have a longer lifetime than trades using non-guaranteed stops

Guaranteed stops on positions at IG are significantly less likely to be triggered than normal, non-guaranteed stops. The average lifetime of positions with guaranteed stops where the client closes manually is over 40 hours, and is very close to the average lifetime of positions where the stop is actually triggered. This data is supportive of LRAs, showing that an LRA promotes 'normal' trading behaviour rather than encouraging "churning", i.e. positions are not closed out quickly causing clients to quickly open further trades to regain their exposure and incur transaction fees.

	Average lifetime of positions stopped out (hrs)	Average lifetime of all positions (hrs)	Number of stopped positions	Number of positions	Proportion of positions closed on stop
Positions with LRA-style (guaranteed) stops	41.0	43.2	403,728	1,859,220	21.7%
Positions with normal (non guaranteed) stops	17.5	26.1	6,563,482	20,255,910	32.4%

Client losses on an LRA over time compared to standard accounts

Clients trading on an LRA lose much less than clients trading on a standard account, and show no sign of losing proportionately more as their accounts age. This suggests that the protection of a guaranteed stop does not encourage over-trading or riskier trading over time.

Days Active	STANDARD ACCOUNT			LIMITED RISK ACCOUNT			Median P&L of LRA as % of Median P&L of Standard Account
	Count	Median P&L	Mean P&L	Count	Median P&L	Mean P&L	
Less than 30	19,056	-£96	-£686	1,847	-£94	-£276	98%
Less than 60	5,590	-£381	-£2,156	406	-£245	-£619	64%
Less than 90	4,431	-£572	-£3,475	350	-£289	-£1,376	51%
Less than 120	3,623	-£644	-£4,094	208	-£341	-£1,839	53%
Less than 150	3,089	-£799	-£3,858	122	-£612	-£3,030	77%
More than 180	34,574	-£1,630	-£9,365	121	-£859	-£3,339	53%

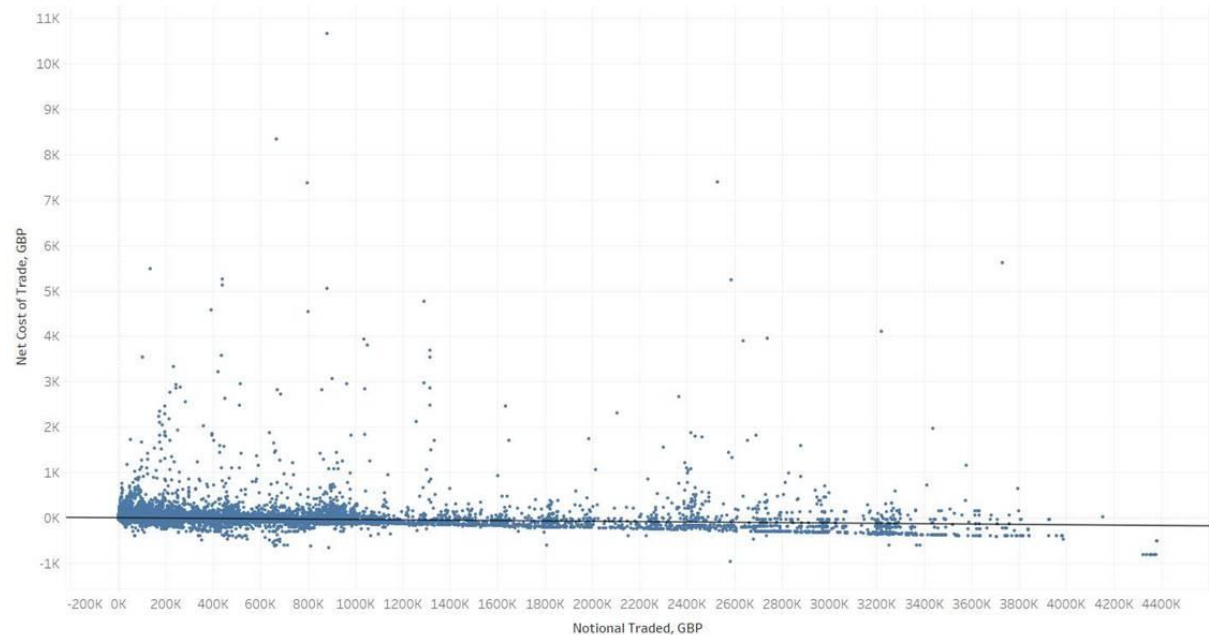
We also thought worth sharing that the proportion of LRA clients depositing a concerning amount (when comparing to their level of wealth declared when initially opening their account) does not vary significantly to that seen with standard account holders, and is a small percentage (2 in every thousand funded accounts):

	Funded	Traded	Funded more than once	Losses exceed initially declared wealth	Losses exceeding initial wealth declaration, as % of funded accounts
LRA	3875	3042	1895	8	0.2%
Standard account	8411	7088	4669	13	0.2%

LRA are cost-effective

IG charges its LRA clients for the protection of a guaranteed stop **only when it is triggered**. Clients do not pay the premium for a guaranteed stop if it is not triggered. The below chart shows outcomes for guaranteed stop trades on a trade by trade basis for IG. “Cost of Trade”, the measure on the y axis, is how much a triggered guaranteed stop cost IG in each case. A positive (often very positive) result represents occasions on which the stop saved a client from slippage in the market (the economic impact of which would have been shouldered by IG). The larger number of small negative results represents occasions where a stop was triggered, but where the guaranteed stop premium paid by the client was larger than any slippage saved.

Cost of Trade by Notional Traded



As the black line of best fit is very close to the x-axis, we believe IG’s stop protection is being sold very close to “at cost” to clients, with saved slippage approximately balancing stop premium charged. This is very difficult to achieve exactly, owing to variable market conditions, however note that the line slopes down slightly as notional trade size increases – this implies that, to the extent that the stop protection is not precisely “at cost”, smaller clients are favoured at the expense of larger clients.