

Alistair Milne, Professor of Financial Economics

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To:

Alasdair Smith
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The Competition and Markets Authority
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By email to: retailbanking@cma.gsi.gov.uk

Commentary on Provisional Remedies: revised

Dear Professor Smith

I am attaching a brief commentary on your provisional decision on remedies for promoting competition in PCA and SME banking, released on 17th May last month. This is slightly revised from a version sent yesterday, adding a short conclusion.

Only in the last three weeks have I paid much attention to the investigation. So this commentary is 'late in the day'. Still as the leading UK university researcher on the economics of financial infrastructure and financial technology I think that even at this stage my views may be of some use in formulating your final decisions.

I will be happy to discuss further any of the points I raise here, with you or your team either by telephone or in person, if this should be useful.

Yours sincerely

Alistair Milne

A commentary on the May 2016 CMA retail banking market investigation provisional decision on remedies

7th June, 2016; revised with added conclusion 8th June 2016

Broad response

Most of my research over the past sixteen years has been on the economics of financial infrastructure and of network innovation in financial services. I believe I can say without fear of contradiction that I am the leading researcher in Europe in this area of research. This though does not give me that much by way of bragging rights. It is difficult to publish such work in 'leading journals' and as a result it is a relatively empty field. I also like to say that during most of my working life I have been without doubt the smartest guy in the room. This has a similar justification. The working life of the research economist is a solitary one, mostly spent alone in front of a computer screen. There simply has been no-one else in the room.

Humour aside, I realised from the press response to the CMA retail banking market investigation provisional remedies, and a short subsequent informal exchange with two members of the investigation team, that I can offer independent and potentially useful insight into the provisional decision on remedies. I have therefore taken a little time to review the various responses to the preliminary findings of the investigation and to set out in this document some comments on the work of the investigation, the provisional decisions and their likely impact on the industry.

The overall thrust of my comments is as follows. Technology is fundamentally changing banking and other financial services and will continue to do so over the next couple of decades. Appropriate and effective measures to promote competition in retail banking need to fully take into account the implications of this technological change. This has three dimensions: assessment of costs and benefits must take into account the evolution of technology and its ongoing impact on the industry; the opportunity should be pursued of utilising technology and technological developments as tools to promote competition and efficient resource allocation; and finally (and in my view most importantly) regulators must pay particular attention to ensuring that intervention acts to promote not hinder the innovations that promote competition, efficiency and better customer service.

A central aspect is the governance of infrastructure and process innovation. Financial services are *network* industries in which firms sometimes compete but also quite frequently must co-operate in the design and operation of transaction and information systems. Remedies based on achieving less concentrated market share, for example divestiture of branches, or ensuring that challenger institutions are not at a cost disadvantage, while a central issue are secondary – in terms of economic outcomes – to the challenge of supporting appropriate innovation.

A further key issue is that the competitive outcome in a network industry such as retail banking can often be 'excess inertia', i.e. relatively slow rate of innovation compared to the most efficient allocation of resource over time. This is a widely noted issue in network industries,

highlighted in the widely cited paper of Farrell, Joseph, and Garth Saloner. "Standardization, compatibility, and innovation." *The RAND Journal of Economics* (1985): 70-83. This problem of lack of innovation appears to be more severe in relatively large banking markets with many producers such as the UK. Thus I have ascribed the relatively slow development of electronic payments in the for example the UK, the US and Germany when compared to Nordic countries or New Zealand to excess inertia (see Milne, Alistair. "What is in it for us? Network effects and bank payment innovation." *Journal of Banking & Finance* 30.6 (2006): 1613-1630).

For this reason I welcome the central role in the provisional remedies of regulation of technology and the encouragement of data sharing, in particular the first foundation remedy on measures to promote open 'Application Programming Interfaces' (API) standards and data sharing. I also note the rather shallow response from UK journalists and other media to the provisional decision on remedies, with a widespread complaint that these are 'soft' on the large banks because there is for example no proposal of direct intervention to reduce their market share in say current accounts or SME lending. This is a shallow criticism that entirely ignores the central role today of technology in banking and the potential that it has for triggering fundamental change in the industry over the next decade or two.

This is not to say that the provisional remedies are perfect. As the rest of this commentary will highlight, it is not easy to promote efficient economic outcomes through regulatory measures that support appropriate technological innovation. Vested interests need to be overcome and there are substantial challenges of co-ordinating on appropriate technological choices. I remain very unsure if the governance arrangements for shared standards and data sharing implicit in the provisional remedies will effectively support innovation. I recommend that these should be revisited and reviewed after an appropriate period, say five years. Nonetheless it should be absolutely clear that it is technology not market structure that is the central determinant of economic outcomes in the retail banking markets of today and tomorrow and that it is on this issue that discussion of the provisional remedies should be focused.

My remaining remarks focus on two areas, the first foundation remedy on API/ data sharing; and then its implications for other remedies.

The first foundation remedy

I reproduce paragraph 3.13 for the provisional decision on remedies, which contains this first foundation remedy supporting the adoption of open API standards and data sharing

"We have provisionally decided to:

- *Make an Order requiring that RBSG, LBG, Barclays, HSBCG, Nationwide, Santander, Danske, Bol and AIBG adopt and maintain common API standards through which they will share data with other providers and third parties. To this end, the CMA will require these banks to:*
 - (a) propose to the CMA for its approval the composition, governance arrangements, funding and budget of an entity (the Implementation Entity) for the purposes of implementing and maintaining open banking standards to a project plan and timetable approved by the CMA;*
 - (b) propose to the CMA for its approval a suitably qualified, independent person (the Implementation Trustee), whose services will be paid for by providers and with a mandate, approved by the CMA, to act as chair of the Implementation Entity;*
 - (c) use their best endeavours to achieve the objectives of the project plan and the timetable agreed with the CMA; and*
 - (d) agree to be bound by the decisions of the Implementation Trustee.*

- *Require the banks listed above to release and make available through an open API, by the end of Q1 2017, and thereafter maintain as open data, the following reference and product information:*
 - (a) *the prices, charges, terms and conditions together with customer eligibility criteria, in the case of loans, for all PCA and BCA products (including overdrafts) and all SME lending products within our terms of reference (including unsecured loans and overdrafts); and*
 - (b) *the reference data (for example branch and ATM location, branch opening hours).*
- *Require the banks listed above to make available as open data and through an open API, service quality indicators (for example customer recommendation scores) specified by the CMA in its remedy on service quality and at the time required by this remedy.*
- *Require the banks listed above to:*
 - (a) *release and make accessible through an open API their ‘Midata’ data sets (ie redacted PCA data sets) no later than Q1 2017; and*
 - (b) *adopt and maintain open standards for APIs with full read and write functionality on PCA and BCA transaction data sets within a timetable agreed with the CMA to be no later than the transposition deadline of the second Payment Services Directive (PSD2).”*

I have four remarks to make on this first foundation remedy.

The first is simple: well done! I am tempted to describe this as the “foundation foundation remedy” because it underpins the two other foundation remedies and hence the full range of provisional remedies. Giving this prominence to technology is a big step forward from the many previous investigations of competition in UK banking (as I recall the response to preliminary findings from the Social Market Foundation enumerated ten such investigations over the past seventeen years, yours seems to be first in which the penny has dropped and it is properly recognised that retail banking is an information industry in which information technology plays a central role in determining economic outcomes.)

My second remark is that a casual reader may not grasp the full implications of this proposed remedy on API standards and data sharing. I understand that the development of this remedy has drawn on the experience of the BBI website comparing SME banking services, the lively discussion around the NESTA challenge prize, the Midata project and the recent report of the Open Banking Working Group on open API standards. What is not so clearly communicated is the potentially dramatic changes in customer experience that could flow from the full development of such API standards. Done properly this will open up a wide range of potential service innovations including in a range of services that lie outside the scope of the investigation. API development and governance should therefore respond to the needs of a wide range of potential stakeholders, both banks and non-banks.

I can touch on the possibilities, by giving a couple of examples. One potential innovation, highlighted by the Social Market Foundation, is the possibility of much improved third party aggregation of banking products, which would make it possible to hold and compare a number of accounts and investments provided by different institutions within one portal. Third parties, with appropriate permissioning, could be allowed to change and initiate payment instructions. The API design therefore needs to be adaptable, for example perhaps overtime extending to non-deposit investment products (ISAs, P2P loan investments). Account switching could through aggregators be a relatively gentle process – open up two accounts with two different institutions in one aggregator portal, set up a sweeping mechanisms between the two accounts at different institutions and then gradually (with automation supplied by the aggregator) move instructions such as direct debits from one account to the other.

Even confining attention to the transactions space I perceive potentially dramatic consequences from the adoption of APIs, especially if extended to allow third parties, with appropriate permissions, to initiate and execute payment instructions. An example that occurs to me is the relatively high charges imposed by card schemes for international transactions,

which can cost consumers as much as 5% or more of transaction value and adding quite a lot to the cost of an overseas visit. An aggregator service could allow a consumer to link a pre-paid card that avoids these high charges to their bank account, with transfers that maintains the pre-paid balance at a level sufficient for daily needs, with excess returned at the close of the trip. Overtime I would expect aggregation tools to substantially alter competition in the full range of payment experience, B2B and C2B; online and in person. There are naturally prominent security concerns, these developments must proceed slowly and cautiously, but as the provisional remedies recognise APIs are potentially security enhancing, this is not a strong argument against their widespread development and use.

My third remark, is I do not see any guidance about the ongoing role of regulators in relation to APIs and competition, after the CMA retail banking investigation is closed. Both the FCA and the PRA have a duty to consider competition in their work; the payments regulator is a competition regulator and will be central to the adoption and implementation of the PSD2 (which even outside of Europe we will surely wish to implement). While this is more general than the specific scope of retail banking covered by the review it is something that might be indicated as a valuable further line of inquiry to be pursued by these permanent bodies. To give just one example. The PRA's task of ensuring that banks can be resolved in an orderly fashion without requiring tax payer support, or of engaging in stress testing of regulated institutions, could and perhaps should be API based, drawing on information account by account for an individual bank and using this to analyse the potential stress in institutions and the process of resolution. The FCA will have a different interest in relation to supporting financial innovation (their 'project innovate') where APIs can again play a key role.

My fourth remark is a warning about a potential backlash from the banks against regulatory interventions in their technologies, including APIs. Banks have been supportive of the CMA examination of banking technologies, both through detailed engagement with the investigation and through the Open Bank Working Group (and in some responses e.g. from the Lloyds Banking Group on the preliminary findings, which relative to other institutions show a mature awareness of the implications of APIs and other technological innovations for banking; this is not to say that such awareness is not to be found in other major UK banks, there are very many technologically aware individuals in all banks but those individuals do not appear to have made as a full contribution to the responses as has been the case for the Lloyds Banking Group). The danger is that the "Implementation Entity" and the participation of banks in this entity operates in such a way as to be a brake on technological developments, because of the threat these impose to incumbent bank's business models, a challenge since effective development of APIs requires close engagement of the major institutions.

I have written at length in other contexts on governance of innovation and technology in financial services firms. This is a crucial issue that needs to be confronted at board level by all of the UK's banks in the context of the CMA investigation remedies. The challenge is not just establishing the Implementation Entity for governing APIs but the broader and deeper task of developing an institutional arrangement that effectively supports technological change for the UK industry to the benefit of customers, even when this has a potential of causing a short term negative impact on earnings and share prices. The point is to me quite simple. The long term interest of shareholders and customers are in many respects aligned (efficiency enhancing technological innovation benefits diversified shareholders and customers alike even if it does not do so much good for bank share prices); but there are potential short term conflicts, in particular the pursuit of higher equity prices to increase compensation for senior executives, that must not be set above shareholder and customer interests. Technology has therefore to be seen as a central governance concern in banks and mechanisms need to be in place for setting appropriate technological strategy for individual banks and supporting technological co-operation between banks both small and large. This puts a particular responsibility on the role of independent non-executive directors in setting technological strategy and representing wider stakeholder interests (and ultimately poses a challenge to conventional interpretation of the duties of directors of firms in a platform network industry such as banking).

The relationship between the first foundation remedy and other remedies

To complete this commentary, I provide a few further remarks about the relationship between the first foundation remedy and the other provisional remedies. I do this in the light of the range of responses to the provisional findings and the letter from eight challenger banks to the CMA investigation chair published since the announcement of the provisional remedies.

I suggest that more needs to be added to the foundation remedy 2 in respect of objective measures of service performance. My concerns are two fold, first that there is little detail on what measures should be provided, this decision is left to the FCA. Second and more fundamentally, little or no attention to the role of financial technology and in particular of APIs in generating these measures. This could easily develop into yet another regulatory reporting burden that is excessively burdensome for smaller institutions.

I urge the investigation to think about this a little more holistically. A fundamental benefit of information technologies in financial services is the opportunity for greater transparency. Transparency of both pricing and of service quality should both be built upon the same fundamental of supporting standardised access via APIs, not separate reporting obligations, giving third parties e.g. comparison sites and aggregators the opportunity to inform customers.

I would also ask that the potential scope of these objective measures are extended – using APIs not reporting requirements -- in various respects. These should include statistics on fraud and breaches of cyber security – a major problem for the industry (though not as serious as in some other countries including the United States). The ability to observe incidence and outcome of frauds on an individual institution basis will provide them with the commercial incentives to develop the technology to protect customers against these serious concerns.

These objective measures should also include objective measures costs of foreign exchange transactions. I understand that foreign exchange transactions were not within the remit of the investigation. But I have mentioned above how APIs could help alternative providers of foreign exchange card payments services. Similar concerns about high levels of transaction charges in foreign exchange apply to both personal and SME customers international credit transfers. Again an API based developments could help third parties provide objective measures of performance and the Implementation Entity should be asked to ensure wider application in these other areas of banking activity where concerns over lack of transparency arise.

On account portability, I encourage you to consider in more detail the relationship between APIs and partial switching proposition under the CASS arrangements. The Implementation Entity for APIs should be charged with ensuring that these are developed to provide as full as possible support for third party switching services that allow the customer to gradually migrate from one account to another.

On unarranged overdraft charges, I again suggest that the Implementation Entity for APIs be charged with ensuring these are developed so as to allow third parties to offer cash flow management services that warn customers and minimise exposure to unanticipated charges. These should also facilitate comparisons between accounts.

On supplementary measures to promote competition the preliminary recommendations, paragraph 6.9, propose "... to improve SMEs' access to information by requiring all lenders which provide unsecured loans and overdrafts to disclose on their websites, and make available to comparison sites, including the eventual Nesta506 challenge prize winner, information on the cost of borrowing. We also propose to require eight banking groups – comprising the main providers in GB and NI – to provide prospective borrowers with loan price

and eligibility indicator tools. Such tools will enable SMEs to ascertain whether the provider would be likely to grant them a loan of the size and term requested, and will provide an indication of the rate at which they may be likely to do so.” Again I think this proposal is written from the wrong mindset, suggesting that transparency requires the imposition of additional reporting requirements on banks that may disadvantage smaller competitors. Instead what is required is ensuring the development of APIs and data sharing to allow third parties, with permission from customers to access their data, to provide independent calculations of loan costs for a variety of facilities on a comparative basis.

That said, I strongly endorse the view that the effectiveness of data sharing as a tool for promoting competition in credit to SMEs should be the subject of a further review by HM Treasury two years after the publication of the final investigation report (para 6.214). This should also examine the effectiveness of the various voluntary data sharing arrangements such as Project Facter and data sharing through account aggregation services as well as the facilitation of data sharing required by the Small Business Enterprise and Employment Act. This review should naturally work with the Implementation Entity responsible for introducing APIs and be seen as an external check on progress.

I agree with the approach taken towards “Free if in credit FIIC banking”, noting further that if API comparability is sufficiently developed, especially supporting aggregator comparisons, it will become comparatively easier for some banks to offer alternative account arrangements with explicit charging. Change will take a considerable time, but the greater transparency made possible through financial technology will eventually weaken the hold of FIIC transaction products in the UK market.

Finally I comment briefly on the concern that capital requirements continue to disadvantage smaller institutions, notably through the use of the ‘standardised’ rather than IRB risk weightings, where there is sometimes a wide discrepancy especially for low LTV mortgage products. I have a sympathy with this concern, and were banking a purely static industry not one that is changing at a rapid pace, I think the investigation would need to do more in response. But the industry is not technologically static and in this broader context this concern can be seen as a relatively smaller factor in achieving effective economic outcomes.

Two points in support of this position. As the chairman of the investigation has responded this concern is not directly within the remit of the investigation. The retail banking investigation is focused on transaction and shorter term credit products (PCA, BCA, overdrafts and SME lending). These are all products where the challenger banks – whose primary business model is offering improved transaction and cash management products (as well as in some cases an improved more personal customer service) – have a cost advantage in terms of their greater nimbleness and ability to introduce systems innovation.

Where the challenger banks have a problem is in communicating to investors an appropriate expectation of return on capital, given that prudential requirements require them (possibly unreasonably) to hold more equity capital than large incumbents. Here however technology can come to the rescue of challenger banks. Note that a mutual fund (100% equity) invested in a portfolio of low LTV mortgages would trade like a bond not like an equity, the only uncertainty being prepayment risk (and this economic magnitude of this risk is low when the loans are at floating rates of interest). Thus the appropriate response of the challenger banks is to market their equity as a combination of mutual fund invested in low LTV mortgages and bank equity, with a separate appropriate target return for each (if they wished they could set up an SPV to allow separate trading in these two components). The PRA should be charged with ensuring supportive regulatory oversight and supervision in pursuit of these responses.

A short conclusion “It’s the vision thing”

I can conclude with one final point. You will be aware of the generally negative press reaction to the announcement of your provisional remedies, “damp squib”, “soft on banks” etc. I have had some brief contact with your team following the announcement of the provision remedies. This arose because my instinctive response, as an economist focusing on financial technology and financial infrastructure, was quite opposite to that of the press. My immediate reaction was “how novel, how exciting”.

My interpretation is as follows. You started your review with the conventional view of competition and the need to address static inefficiencies in the industry. But over time your team have become increasingly aware that the central economic issue for the sector is rather dynamic inefficiency, in particular the adoption and exploitation of information technology to overcome the classic banking frictions of asymmetric information and incomplete contracts. Banking, twenty years or so from now, can be inclusive, low cost and providing effective and reliable and reasonably priced services to a much wider range of UK households and firms than is the case today. But achieving this goal means embracing technological opportunities across the industry. Your perspective has evolved, but with the pressure of the investigative deadline, you have not clearly communicated the heart of your ideas.

Your provisional remedies are still welcome. By putting APIs at the heart of reform they take exactly the right first steps in this direction. They recognise the central issue for this investigation, promoting cross industry agreement on maintaining and sharing data, collaborating on technological standards and using modern methods to overcome the many barriers to competition and innovation rooted in old banking technology.

My criticism is that your recommendations have failed to communicate the key point – which will be essential if they are to get the necessary political support – that they are just the start of a process of change with the potential to yield strikingly better economic outcomes; but which needs effective management at industry and national level if this potential is to be achieved.

The most striking feature to me of the responses to your provisional remedies, across the range from Which on the one side to challenger and incumbent banks on the other, is that with a few honourable exceptions most of those responsible for regulatory affairs in banking are still rooted in the old world of thinking, where technology is an afterthought, something to be undertaken by back office nerds, while the real business is charging for credit, paying interest on deposits, selling products and making as much money as possible while still remaining compliant with regulations. A number of your regulatory recommendations are still rooted in the old fashioned way of doing things, a deluge of regulatory reporting to handicap providers, rather than exploiting the possibilities of new technology to support customers.

The media have, mistakenly, perceived your remedies as limited or insufficient. The shortcoming that led to this, I believe, is that you have not fully appreciated yourself the radical nature of your proposals or communicated clearly the vision of where the industry can be two decades from now. In this respect the role of your proposed ‘Implementation Entity’ for API is central and I hope it is given the broadest possible remit across the entire technological space of retail banking. I look forward to your final report in the expectation that it will clearly articulate a future direction for the competitive dynamic of this most important industry.