CENTRAL BANKS AND COMPETITION AUTHORITIES: INSTITUTIONAL COMPARISONS AND NEW CONCERNS

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1. Introduction

Rudi Dornbusch (2000) said that the keys to prosperity were sound money, free markets and a bit of luck. All three held, more or less, in developed economies in the decade-and-a-half of the Great Moderation that preceded the crisis of 2008. During that benign period there came to be a broad consensus about institutional design. Independent central banks would set official interest rates to safeguard the soundness of money in terms of purchasing power. Independent competition authorities would protect the freedom of markets against threats to competition from the business sector, and in the European Union also against threats of competition being distorted by national governments. Luck, in large measure, was taken for granted.

The UK is a prime example of the adoption of this institutional consensus. The Bank of England Act 1998 and the Competition Act 1998 (soon followed by the Enterprise Act 2002) brought forms of independence to decisions in the spheres of monetary policy and competition policy respectively three hundred years after the foundation of the Bank of England and fifty years after the creation of the UK's Monopolies Commission.[2] Previously,

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[1] All Souls College, Oxford, UK. This working paper is a lightly edited version of the draft paper presented in Lucerne on 25 June at the 9th BIS annual conference on 'The future of central banking under post-crisis mandates'. That draft paper, dated 15 May, was written well before I was invited to chair the Independent Commission on Banking announced by the UK Government on 16 June. Without implicating them in any way, I am very grateful to my discussants Alan Bollard and Mario Monti, and to Fod Barnes, Olivier Blanchard, Claudio Borio, Maria Coppola, John Fingleton, Charles Goodhart, Christopher Hood, Paul Seabright, Hyun Shin, Xavier Vives, George Yarrow and others for helpful exchanges on the topic.

[2] Declaration of interest: From the Spring of 1998 until the Autumn of 2000 I was Chief Economist at the Bank of England and a member of the Monetary Policy Committee. For the next five years I

decisions on both fronts had ultimately been taken by government ministers, with interest rates set by the Chancellor of the Exchequer, and important decisions (e.g. on remedies) in monopoly and merger cases being taken by the Secretary of State for Trade and Industry.[3] The two pieces of 1998 legislation gave the monetary and competition authorities powers to take policy decisions independently from ministerial government, albeit with the inflation *target* set (transparently) by the Chancellor of the Exchequer.

What were the rationales and pre-conditions for independence? What forms did it take? What do independent monetary policy and independent competition policy have in common? What are the contrasts?[4] These questions are pursued in the next section, which, having regard to the central bank audience for this paper, starts with a primer on the workings of competition policy. Following Vickers (2002) the discussion is based on the theme of Isaiah Berlin's (1953) essay on Tolstoy – *The Hedgehog and the Fox* – the idea being that monetary policy is for hedgehogs (who know and do one big thing) and that competition policy is for foxes (who know and do many things).

At least that seemed to be the idea before the crisis. Since 2007, however, central banks have had to become considerably foxier, and indeed have done various unorthodox things. At the same time, questions have been raised about the merits of competition itself, especially in relation to banking and other financial services. Support measures for the financial system have compelled competition authorities, notably the European Commission in Brussels, to make urgent and unorthodox decisions about banks. The unwinding of those support measures, including the privatization of state-owned stakes in banks, will pose major competition policy questions in the near future. Banks have long been a subject for competition policy attention, but central banks and competition authorities tended to see

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headed the UK's Office of Fair Trading (OFT), which has responsibilities for competition and consumer policy. In October 2005 I returned to Oxford University.

[3] A Restrictive Trade Practices Court had existed in the UK for forty years but with a much more limited role and powers than the regime brought in by the Competition Act 1998.

[4] A related analysis is by Goodhart and Meade (2004), who compare and contrast independent monetary authorities with the highest-level courts in the UK and USA.

rather little of each other in the old days. That may well change in the years to come. Section 3 considers these issues and the underlying question of whether competition and financial stability concerns are at odds or in harmony.

Finally, section 4 discusses whether recent events have undermined the rationales for independence that seemed so strong just a few years ago. Are sound money and freely competitive markets, although desirable all else equal, to be traded off against wider objectives that the crisis has exposed? If so, can judgements about the trade-offs properly be left to 'independent' authorities? Or is independence – of monetary and/or competition policy – a luxury only for the good times?

2. The Hedgehog and the Fox[5]

There are some close parallels between independent monetary policy and independent competition policy. They were explicitly linked in Gordon Brown's budget speech in March 1999[6]:

"In 1997, so that interest rate decisions would be set for the long-term needs of the economy, the Government made the Bank of England – Britain's monetary authority – independent. Tomorrow, so that competition will be encouraged for the long-term needs of the economy and consumers, the Secretary of State for Trade and Industry plans to set out a new competition policy for Britain."

It is a measure of the prevailing pro-competition consensus that this policy was based on the conclusion that "competition is not only the best stimulus for innovation and efficiency but the best prospect for a better deal for consumers". Labour party politicians did not speak like that in the 1980s.

Rather than dwell on the similarities between independent monetary and competition policies, however, most of this section explores contrasts between their modes of operation,

[5] Much of this section is drawn from Vickers (2002).

[6] Note that this statement was made *after* the 1998 Competition Act. Among other things it referred to reforms that became incorporated into the Enterprise Act 2002.

taking as a theme Isaiah Berlin's famous (1953) essay on Tolstoy's view of history, which begins with the line from Greek poetry: *The fox knows many things but the hedgehog knows one big thing*.

Berlin saw a great divide between two kinds of intellectual personality. The hedgehogs – whose ranks include Plato, Dante, Hegel and Nietzsche – relate everything to "a single, universal, organising principle in terms of which alone all that they are and say has significance". Before the crisis, monetary policy was for hedgehogs. Achievement of price stability, whether or not explicitly in terms of an inflation target, was the single organising principle. All that monetary policymakers said and did had significance in terms of that goal, and its implications for how the official interest rate would be set.

By contrast, foxes – exemplified by Aristotle, Montaigne, Erasmus and Shakespeare – pursue many ends. Their thought "is scattered and diffuse, moving on many levels, seizing upon the essence of a vast variety of experiences and objects for what they are in themselves". Competition authorities are foxes inasmuch as they are involved in many and varied experiences, moving on different levels, to which they must be alert.

2.1 How does competition policy work?

As the audience for this paper is largely from central banks, a short account of how competition policy works may be a useful preliminary, especially because central banks and competition authorities may have more common business in the post-crisis environment than in the past.

The three sources of threat from business behaviour to the competitiveness of markets are anti-competitive mergers, anti-competitive agreements (cartels being the clearest case) and anti-competitive (e.g. exclusionary) conduct by firms with substantial market power. Accordingly, competition law has three basic elements:

- merger controls
- prohibition of anti-competitive agreements

- prohibition of abuse of market power.

In the European Union these provisions are the EC Merger Regulation of 1989 (revised in 2004) and Articles 101 and 102 (until recently numbered 81 and 82) of the EU Treaty. In the US they are to be found in section 7 of the Clayton Act of 1914 and in sections 1 and 2 of the Sherman Act of 1890. For a global perspective see Gerber (2010), who, after the US and Europe, devotes particular attention to Japan, Korea, China, Canada, Australia, Latin America and Sub-Saharan Africa.[7]

Competition laws as expressed in treaties and statutes are just the start. They do not define key terms such as "anti-competitive" or "abuse of dominance" or "monopolization", the interpretation of which can arouse great controversy in particular cases and in general. The real substance of the law is fleshed out and evolves over time in the light of competition authority practice, and, above all, judicial precedent. In some jurisdictions, notably the US, the action primarily happens in the courts. The authorities bring proceedings there, and so do private claimants; indeed most cases are private. Elsewhere, as in Europe, the authorities take decisions, which are then subject to appeal to the courts; relatively few cases to date have been private actions.

The judicial interpretation of what a statute means in practical terms can change markedly over time in the light of experience and of legal and economic scholarship. For example, between the 1960s and 1980s, without any change to the antitrust statutes themselves, US law (rightly) became much more tolerant of non-price vertical restraints, and in 2007 the Supreme Court by a 5-4 majority recently reversed a 96-year old precedent that had made resale price maintenance 'per se' illegal. The European Courts in Luxembourg, however, have been relatively conservative with respect to legal interpretation. But through guidelines, casework and public statements, the European Commission in Brussels has made important efforts to develop EC competition law. Like the ECB (but unlike the Bank

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[7] The number of countries with national competition laws has grown considerably over the past decade, and now exceeds a hundred. The degree of independence of competition authorities from ministerial government varies across countries.

of England's MPC, for example) the European Courts (unlike the US Supreme Court) present a united front to the public.[8] This is presumably for good reasons to do with being composed of members from various countries, but there may be some cost in terms of dynamism and the richness of public debate.

Because of the multi-country constitution of the European Union and its single market purpose, EU competition law has a fourth element – the prohibition, subject to important exceptions, of "any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods".[9] This state aid provision came to the fore in 2007 with the UK government rescue of Northern Rock, and generally with the emergency measures of October 2008. But even well before the crisis two of the leading EC state aid cases concerned banks, as will be discussed further below.

Competition policy goes beyond competition law. As well as operating legal provisions, such as those just mentioned, some competition authorities conduct market investigations and reviews. (The UK's Competition Commission, a separate body from the OFT, even has legal powers to implement remedies following market investigations, subject to judicial review, as it did in relation to the supply of banking services to SMEs.[10]) Likewise some competition authorities engage in reviews of regulation, and may have statutory duties to do so, as the OFT does under the UK's Financial Services and Markets Act 2000. More generally, a number of competition authorities engage in 'competition advocacy', for example publicly advising on the removal of restrictions and distortions of competition that stem from government itself, such as regulations that unduly limit market entry. Finally, it is worth noting that some but not all competition authorities also have roles under consumer

[8] Except for the Advocates General at the European Court of Justice, one of whom delivers a public opinion in advance of the court's judgment on each case. Opinions of AGs are often more interesting than the judgments themselves, as competition law textbooks amply demonstrate.

[9] Article 107 of the Treaty on the Functioning of the European Union.

[10] See Competition Commission (2002).

protection law, which, like competition law, is of considerable importance for banks and other financial service providers.

2.2 Why independence?

The textbook rationale for monetary policy independence is the time consistency problem.[11] Following Barro and Gordon (1983), suppose for illustrative purposes that the per-period welfare loss (as judged by politicians, say) from inflation π and unemployment u relative to its natural rate u^* takes the form $L = \pi^2 - a(u - u^*)$, where a is a measure of unemployment aversion relative to inflation aversion.[12] Suppose too that unemployment is related to the inflation surprise – the difference between expected and actual inflation – by $u - u^* = b(\pi - \pi^e)$. Then with $c = ab$ the loss function becomes

(1) $$L = \pi^2 - c(\pi - \pi^e) .$$

For all π^e, the policy-maker's best policy in a one-shot version of the game is to set monetary policy so that inflation $\pi = c$. If the public foresee, or come to expect this, then $\pi^e = c$ too, so there is inflation but no reduction in unemployment below the natural rate.

With credible pre-commitment to zero (or at any rate lower) inflation, inflation performance would be better and unemployment no worse. How to achieve that commitment? Dynamic versions of the model explore reputational equilibrium possibilities, but these can be delicate, and depend on horizons implausibly long for most politicians. Another solution, analyzed notably by Rogoff (1985), is to overcome the time consistency problem by giving decision-making power to hard-nosed independent 'conservative' central bankers, whose

[11] Dozens of papers, using various measures of central bank independence, have explored empirically the relationship, if any, between central bank independence and inflation. A recent survey of the literature is by Klomp and de Haan (2010), whose meta-regression analysis "corroborates the conventional view by finding a significant 'true effect' of CBI on inflation", after controlling for publication bias. For a contrary view see Posen (1998).

[12] More typical in the literature, and with better micro-foundations, is a quadratic, not linear, term relating to deviation of unemployment (or output) from its natural rate: e.g. see Woodford (2003, chapter 6). But the linear form above makes the point as simply as possible.

preferences are such that $c = 0$ innately. (See also the analysis of Cukierman, 1992.) This is an application of Tom Schelling's point about the strategic advantages of overtly delegating certain decisions to agents with preferences different from one's own.[13]

For a central bank like the Bank of England that has operational but not goal independence, the inflation target, say τ, remains under political control. So long as τ is set publicly and in advance of operational decisions, commitment to low inflation can nevertheless be achieved so long as the central bank's monetary policy committee is credibility devoted – perhaps for reasons of accountability – to hitting whatever target has been set (irrespective what it may think of the merits of that target). With such timing and credibility $\pi^e = \tau$, and with accurate (and lucky) policy $\pi = \tau$ too. Thus the politician can credibly achieve low inflation while retaining power to set the inflation target. The institutional structure removes the politician's ability to spring an inflation surprise. (Or at least it weakens it, for the politician could suddenly hike τ, but then s/he would clearly get the blame for resulting higher inflation, and perhaps with minimal short-run gain in unemployment as π^e rapidly adjusts.) For this to work conservative central bankers are not required but merely conscientious ones who aim faithfully at the target.

Of course getting close to the target also requires skill, including the avoidance of over-optimism about u^*, and luck. There is reason to think that, depending on the qualities of monetary policy committee members, independent central bankers are more likely to get close to target than (even well-advised) political decision-makers. Needless to say, the job of a monetary policy committee is not purely technocratic even in a simple setting like the one contemplated here. Even the most expert and conscientious inflation targeting will be knocked off track by shocks, and these raise the question of how quickly policy should seek to return inflation to target. How much policy-makers care about the *volatility* of inflation and unemployment/output (and perhaps interest rates too) then becomes an issue.

[13] A related point, analyzed by Armstrong and Vickers (2010) with application to merger law, is that the optimal *rules* to set when decisions are delegated should take account of how decision-makers optimize.

An important factor bearing on the democratic acceptability of independent monetary policy is how *controversial* policy decisions are. If the central bank is goal- as well as instrument-independent, there is some tension between policy being uncontroversial and the commitment advantage of delegation, the merit of which is precisely that the independent central bank has different incentives from political decision-makers. But in models of the Barro-Gordon type above, monetary policy is uncontroversial inasmuch as no-one gains from anticipated inflation being high because the long-run Phillips curve is vertical.[14] Since there are no systematic surprises at equilibrium, it follows that the equilibrium with independent monetary policy is Pareto-superior to that without. This property does not hold if, say, there is a large overhang of nominally-denominated debt from the past, because borrowers gain and debt-holders lose from higher inflation, anticipated or not. With government itself typically the principal borrower, however, this may be a further reason why inflation expectations are likely to be lower with independent monetary policy.

Controversy about policy goals is to be distinguished from controversy about policy decisions designed to achieve given goals. Monetary policy decisions – especially interest rate tightening – are inevitably unpopular from time to time, but during the Great Moderation it was broadly accepted that the achievement and maintenance of price stability was *the* thing that monetary policy could realistically be expected to do for economic performance. Note that this is in part a view of the *limitation* of monetary policy, or at least of its comparative advantage. A policy with a wider perceived role might have been less amenable to delegation to decision-makers independent from the day-to-day political process.

Likewise with competition policy. The counterpart to independence in countries such as the UK was to make competition the criterion by which competition policy decisions are judged. The previous legal standard was the 'public interest', pursuant to which the authorities were to have regard to "all matters which appear to them in the particular circumstances to be

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[14] It is worth noting that a vertical Phillips Curve is not essential for commitment to price stability to be optimal – see, for example, Woodford (2003, chapter 6, section 3).

relevant", including, among other things, the desirability of "maintaining and promoting the balanced distribution of industry and employment in the UK".[15] To focus competition policy decisions on questions about competition, rather than a broader umbrella concept of the public interest, again reflects a view of the limitations or comparative advantage of policy. It is not to deny the importance of issues of regional development and employment, but rather to recognise that those objectives are not sensibly advanced by, for example, this or that *ad hoc* merger decision.

The focus on competition criteria, to the exclusion of others, has another aspect at European level – a shared commitment by member states to guard against national policies unduly distorting competition (and free movement of goods, labour and capital) in the internal market. State aid policy is a prime example. Since 2004 there have also been EU constraints on national competition laws. Member states must apply the EU competition rules and may not apply stricter rules domestically against agreements and concerted practices.

In respect of both competition policy and monetary policy, therefore, the rationale for independence has two strands. One concerns *comparative advantage*. If competition [monetary] policy is seen as being much better at maintaining competition [price stability] than say employment, then it makes sense to focus it on that to the exclusion of other objectives. In that case the operation of policy can be delegated, relatively uncontroversially, to technocrats independent from political intervention. The other strand has to do with *commitment* – to no inflation surprises from monetary policy and, in a multi-country system, to resistance of certain kinds of anti-competitive policy at national level. The strands are related because the devotion of monetary policy instruments to price stability and of competition policy instruments to the protection of competition is in part a commitment that other considerations do not count in decisions about how those instruments are set.

[15] Fair Trading Act 1973, section 84.

2.3 Institutional contrasts

What then of the contrasts between independent monetary and competition policy-making, between hedgehogs and foxes? I would highlight six, relating to simplicity, exclusivity, repetition, accountability, information, and interested parties.

As to the first three of these factors, the task of a monetary policy committee in *normal* times is literally one-dimensional – to choose the official short-term interest rate for the period (of a month, say) until the next scheduled meeting. For any currency area, only the monetary authority has that task: it is a monopolist that sets the short-term inter-temporal price of money. In explicit inflation targeting regimes, the policy goal is also one-dimensional – for example 2% inflation. The committee therefore does 'one big thing' that is one-dimensional with respect to both instrument and target, and it alone does it.[16] Moreover, exactly the same question – what should be the interest rate setting for the period immediately ahead? – is revisited every month.[17] None of this is to suggest that the recurring monetary policy question is easy to *answer*. The point is that, in normal times, it could hardly be simpler to state.

A competition authority faces, and partly decides for itself, a much more complex agenda, and where private actions are a realistic possibility, it does not have exclusive power over the application of competition law. The questions it faces come in all shapes and sizes because of the diversity of industries and markets, and the different elements of competition law. An authority might well be investigating simultaneously a bank merger, a bus cartel, vertical agreements in beer supply, and questions about abuse of dominance in broadcasting (and those are just some of the markets beginning with B). The question in such cases is not simply whether the merger, agreement or conduct is contrary to law, but also what to do

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[16] As Blanchard et al (2010) describe the pre-crisis consensus: "To caricature ... we thought of monetary policy as having one target, inflation, and one instrument, the policy rate." Other elements of the consensus that they discuss are the rejection, until the crisis, of discretionary fiscal policy and financial policy as counter-cyclical tools.

[17] Hedgehog as groundhog.

about it if so. For example, should a problematic merger be blocked altogether, or approved conditional upon asset divestitures or behavioural commitments, and, if so, what should they be? Competition authorities therefore do many and varied things, and they are not alone in doing them.

A competition authority, unlike a monetary authority, does not usually revisit the same question repeatedly, although similar questions may recur. The blocking of a merger, the prosecution of a cartel case, or the prohibition of conduct as abuse of dominance, all tend to be one-off decisions, often with long-lasting effects. For example, the UK government's close-run decision to block the Barclays/Lloyds merger in 1968 shaped the structure of retail banking in the UK for decades. Moreover, for reasons of precedent, the consequences of a decision may go well beyond the case in question, giving rise to a sort of multiplier effect. There is however a fundamentally important respect in which competition policy decisions do get revisited – appeals to the courts.[18]

In competition policy, courts are the necessary counterpart to independent authorities. Although competition policy decisions taken by government ministers are subject to judicial review under general administrative law, with independence there is a need for a much closer level of judicial scrutiny. Loosely speaking, judicial review in the administrative law sense, although its scope has arguably broadened of late, concerns the procedural propriety of decision-making and guards against unreasonableness amounting to irrationality. Within the bounds of propriety and reasonableness, a decision-maker has wide discretion, especially if the statutory criterion for decisions is a concept as broad as the 'public interest', about which a court would be very reluctant to quash the view of an elected government minister. By contrast, the decisions of independent competition authorities typically face altogether greater scrutiny of their economic and legal analysis, and sometimes of questions of fact.

[18] It should also be mentioned that elements of competition policy in some countries are considered by separate bodies sequentially. For example, UK mergers are first looked at by the OFT, which refers those that raise serious competition questions to the Competition Commission.

Indeed a move, such as that in the UK ten years ago, to 'independent' competition policy is at root a shift from a system of political administration to a system of *law*.[19] The ultimate independent competition authority is the independent judiciary, whether that takes the form of a specialist competition court (e.g. the UK's Competition Appeal Tribunal) or (as in the US) the general courts.[20] Specialist competition courts are themselves subject to appeal to higher general courts, notably on points of law, though they are usually the final arbiters of matters of fact.

Whereas independent competition authorities are accountable under elaborate legal structures, obviously there is no effective system of legal challenge of decisions by monetary authorities; nor should there be.[21] Such a system would be absurd as a practical matter – imagine borrowers rushing to the High Court to seek a court injunction against an increase in the official interest rate – but it is worth thinking why it makes sense for judicial accountability to be absent from monetary policy but omni-present for independent competition authorities.

One reason has to do with time and information. Whereas there is time to review and deliberate about competition policy decisions, there is no such breathing space for monetary policy decisions, which have effect immediately upon their announcement. There *could* be a system of delays between the announcement of monetary policy decisions and their implementation, but the effect of the announcement on *market* interest rates, and hence the transmission mechanism, would be instant anyway. Implementation delay would divorce policy from highly relevant information. For example, this month's official interest rate would be independent of recent economic news.

[19] This 'judicialization' of areas of public policy is an instance of a much wider trend in recent decades: see, for example, Shapiro and Stone Sweet (2002).

[20] The European Union Courts in Luxembourg are general – indeed what was the Court of First Instance has since 2009 been called the General Court – but competition cases are a much higher proportion of their caseload than with general courts in other jurisdictions. This reflects the fact that competition law enforcement is one of the main responsibilities of the European Commission.

[21] Contrast bank supervisors, as illustrated by the case unsuccessfully brought against the Bank of England by the liquidators of BCCI.

Such information loss is of no consequence in (at least non-merger) competition policy, because whether or not some firms were in a cartel in and before 2009 depends only on facts up until then. Mergers apart, competition policy questions are historical, being typically of the form: Did the agreement or conduct in question break the prohibition in the law? Merger questions are about the future: Relative to the situation without the merger, is the merger likely substantially to lessen competition? Merger decisions also tend to be more urgent than other competition policy decisions, and while some get appealed, rather few do as appeal system lags generally exceed commercially relevant timescales.[22]

With monetary policy the commercially relevant timescale is virtually instantaneous. Markets move within seconds of policy announcements. They do not give a verdict in the sense of a view on whether the policy decision was right or wrong – though are informative about any degree of policy surprise – but there is no shortage of instant commentary appraising the wisdom of policy, and the data (though not the analysis) that policy-makers have available is in the public domain. This, together with transparency requirements (inflation reports, minutes, etc), amounts to a powerful mechanism of accountability. Monetary policy-makers are also typically required to appear periodically before legislators – congressional or parliamentary committees – to explain themselves. Those disciplines of accountability are much weaker in the case of competition policy.

The next reason is that, unlike with competition policy, there is no reason to think that an appeal body would know any better than the monetary policy committee. (Otherwise the members of the appeal body should replace those on the monetary policy committee.) Why doesn't the same apply with competition policy? This question returns us to the nature of the diverse questions that competition authorities face. Whether or not the evidence gathered in a case shows to the requisite standard of proof that an agreement or conduct breached a competition law prohibition can raise questions about, among other things, evidence gathering, factual inference, rights of defence, the standard of proof, and not least

[22] For example, the judgment by the European Court of First Instance to dismiss the appeal against the European Commission's 2001 prohibition of the merger between GE and Honeywell came four-and-a-half years after the decision.

how to interpret the statutory and case law itself. Unlike macroeconomic statistics, the facts are not generally in the public domain. (With cartels, far from it.) The accumulated case law may leave it unclear whether, say, a type of quantity discount offered by a firm with market power is unlawful. Even clear case law can change over time, as the US example of resale price maintenance illustrates. Answering questions such as this cannot be left entirely to competition authorities; hence the role for the judiciary[23] to oversee procedural fairness and say what the law is, if not also (as in the US) to make the substantive decisions. Recall also that the competition authorities do not have a monopoly of law enforcement, since private parties can bring cases too, as well as appeal against the acts (and omissions) of the authorities.

A further reason for judicial oversight of competition law decisions is that they are not readily reversible. Indeed, because their implications may extend well beyond the case at hand – the multiplier effect mentioned above – errors may get magnified. Monetary authorities make mistakes too, but the frequent and regular repetition of their task allows for reasonably prompt correction, though of course does not guarantee it. (Even hedgehogs can be ostriches.) In a sense, then, monetary policy decisions are more or less constantly on appeal to the monetary authority itself.

Finally, another significant difference between competition policy and monetary policy has to do with the role of interested parties. Monetary policy decisions have effects that are widespread but relatively diffuse, and usually do not affect particular interest groups very strongly. Lower interest rates (hence doves) generally seem more popular than higher rates (hence hawks), despite the fact that aggregate lending equals aggregate borrowing, but monetary policy debate, although sometimes intense, has seemed largely disinterested, at least pre-crisis. This may be, or have been, a reflection of the consensus that price stability is desirable and should be the principal goal of monetary policy.

[23] From *jus dicere* – to state the law.

Competition policy decisions by contrast can have large impacts on particular private interests. Breaches of the prohibitions on anti-competitive agreements and conduct can lead to large fines[24], follow-on actions for damages, and very costly commercial consequences. The whole process can be highly adversarial, though that tends to be less so (pre-appeal) in merger cases, because the merging parties are keen to 'get the deal through', but of course huge commercial interests can be at stake in merger cases. Parties whose arrangements are under challenge accordingly have fundamentally important procedural rights. The interests of their rivals, suppliers and customers may also be powerfully engaged. (The interests of final consumers, however, tend to be diffuse, rather as with monetary policy.) Very substantial private resources are therefore devoted to influencing competition policy decisions and the wider competition policy agenda. That would surely happen all the more if competition policy were not independent, especially if various non-competition considerations were thought to have substantial bearing on competition policy decisions.

As a result there are real risks of 'capture' by private interests in the case of competition policy, as with other forms of regulation (including financial). While some would claim that monetary policy decision-makers got captured by financial interests, I do not find that plausible and do not see capture as a first-order issue with monetary policy. There is no guarantee that independent competition authorities are immune from capture, but there is good reason to think that political decision-makers are more vulnerable. For one thing, they care more about negative publicity. More broadly, with law rather than political administration providing the framework for decision-making, the channels of influence are more limited, transparent and disciplined, with the ultimate forum – the courts – governed by an independent judiciary.

In summary, independent monetary policy and independent competition policy operate in very different ways. The monetary authority, which alone has a decision-making monopoly in its currency area, regularly and repeatedly chooses a one-dimensional instrument (in normal times) on the basis of largely public information to achieve a single target,

[24] There is also the possibility of criminal sanctions, including jail in some jurisdictions.

unchallenged by vested interests. The independent competition authority works in a system of law, making decisions, sometimes with long-lasting effects, about a variety of business practices in diverse markets, often on the basis of confidential information, under multi-faceted competition law, the meaning of which evolves and is not always clear, which others can also seek to apply, and subject to well-resourced challenges from interested parties, especially in court, where ultimate power lies with the independent judiciary.

Monetary policy is of course not the only task performed by central banks. Many are responsible also for (micro-)prudential and other financial regulation, an area of policy in which law and therefore lawyers can be prominent. An interesting question for the future, as institutions of *macro*-prudential regulation develop, is whether or not it will operate essentially free of legal constraints, like monetary policy. Although the aim of macro-prudential regulation is to be counter-cyclical over time, its operation could substantially affect the relative efficiency and profitability of different business models at different times.[25] In short, and whether or not it enters legal forums, macro-prudential regulation could well affect competition.

3. Competition policy and the banks

We now turn from institutional questions to consider the application of competition policy to the banking sector. Just as the financial crisis has called for unorthodox monetary policy, so too has it resulted in unorthodox competition policy – for example in respect of the application of European state aid law and in the disapplication of merger control by the UK government to get through the rapid acquisition of HBOS by Lloyds TSB in the autumn of 2008.

3.1 Before the crisis

Before turning to these events, it may be useful briefly to review how competition policy applied to banks in more normal times. Even then, however, banking had special treatment

[25] I thanks Claudio Borio for this point.

under competition law in many jurisdictions, and 'independent' competition policy was correspondingly circumscribed or at least subject to parallel powers of financial regulators, for example in relation to mergers.

Until their repeal in the 1990s, bank merger activity in the US was shaped by the line-of-business restrictions of the Glass-Steagall Act and by the McFadden Act prohibition on inter-state branching by national banks. Despite the local geographical scope of bank mergers, the Supreme Court considered several bank merger cases in the 1960s and 1970s (since when it has decided no merger cases at all), notably the *Philadelphia National Bank* case in 1963.[26] The Court stated, contrary to widespread prior belief and arguably the spirit of the recent Bank Merger Act of 1960,[27] that the merger provisions of the Clayton Act applied to banks and that the question was therefore whether the effect of the merger "may be substantially to lessen competition" in the relevant market, which was held to be a local part of the Philadelphia metropolitan area. Placing much weight on 'market' share numbers, the Court blocked the merger. US merger law, and non-cartel antitrust law generally, have become much more permissive since the 1960s.

In the UK, as mentioned above, the government in 1968 stopped the Barclays/Lloyds merger, which would have resulted in a 'big three' a year after the merger that created the National Westminster bank had reduced the number of major national banks from five to four. The demutualization and liberalization of the building societies starting in the late 1980s brought some new competitive pressure and also acquisitions activity by the banks, but a line was drawn with the prohibition in 2001 of the takeover of Abbey (a large ex-building society) by Lloyds TSB.[28] Shortly afterwards, Bank of Scotland merged with

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[26] Wu and Connell (1975) discuss these cases. The cases of *Philadelphia National Bank* and *Marine Bancorporation* (1974) are featured in Fox et al (2004) for their wider significance for U.S. merger law – on burden of proof and on the assessment of potential competition in regulated industries, respectively.

[27] The Act was amended in 1966 to state that bank mergers were to be assessed in terms of general merger law unless anti-competitive effects "were clearly outweighed in the public interest", but cleared bank mergers entered into before the *Philadelphia National Bank* decision of the Supreme Court.

[28] See Competition Commission (2001).

Halifax to form HBOS, which Lloyds TSB in turn acquired controversially in the crisis of 2008: see later.

Banking was in the UK competition spotlight ten years ago not only because of merger activity. In January 1999 the government launched a review of banking services (excluding investment banking) by Don Cruickshank, former telecommunications regulator, which was published on the eve of the 2000 budget statement. One of its results was the reference by government ministers (not the OFT) to the Competition Commission of the supply of banking services to SMEs. The Competition Commission's (2002) report recommended a series of measures to reduce switching costs and a controversial requirement on the big four banks, which was lifted in 2007, to offer free banking or interest on credit balances no lower than 2.5% below the official interest rate. A subsequent market inquiry by the Competition Commission concerned banking services in Northern Ireland.

At European level[29], almost all bank mergers have been cleared, and some of the most significant interventions in merger cases have been *pro*-merger, as the Commission has resisted national attempts – for example by Portugal in 1999 and Italy[30] in 2005 – to thwart non-domestic takeovers. The Commission did however clear the Bank Austria merger with Creditanstalt in 1997 subject to undertakings (including divestments); it objected to a Swedish bank merger in 2001; and in it 2007 imposed divestment remedies in respect of the Fortis element of the consortium acquisition of ABN AMRO to address concerns in commercial banking. Important European cases have concerned the prohibition on anti-competitive agreements. A major cartel case was that concerning the *Lombard Club* of Austrian banks[31], and at national level, the OFT in the UK recently announced that RBS will

[29] See Carletti and Vives (2009) for an overview of EU competition policy towards the banking sector.

[30] It was a surprise at the inaugural conference of the International Competition Network – a network of competition authorities − in Naples in 2002 to see bank logos adorning the conference materials. At the time (but not since 2005) the powers of the Italian Competition Authority, the conference host, did not extend to the banking sector, so it felt able to accept bank sponsorship.

[31] A nice minute from a Club meeting minute reads: "The exchange of experience between banks in relation to interest rates has repeatedly proved to be a useful means of avoiding uncontrolled price competition".

pay a fine of £28.5 million for disclosing pricing plans to Barclays in 2007-8. And questions concerning the interchange fee arrangements of the MasterCard and Visa credit card systems have received close competition law scrutiny. The prohibition on abuse of dominance has not been engaged in banking cases. The Commission also launched a general inquiry into retail banking in 2005, but events have transformed the sector since its report – European Commission (2007).

Two of the leading pre-crisis cases on state aid concerned banks. The Crédit Lyonnais bail-outs of the 1990s eventually got conditional approval, though not ostensibly on grounds of systemic risk to the financial system, and the Commission's complex investigation of the terms of state support for the German Landesbanken resulted in repayment of aid from West LB and the ending of state guarantees. With the collapse of Northern Rock in September 2007, a year before the full-blown crisis, the treatment of bank rescues under state aid law suddenly became of huge importance for financial stability.

3.2 *In the crisis: EC state aid policy*

Before turning to the crisis measures, it is worth noting that during the first fifty years of the Treaty of Rome no live questions about state aid arose in connection with lender-of-last resort operations by central banks. Presumably, such operations according to Bagehot's principles − to deal with a problem of liquidity (but not solvency) by lending freely against good collateral at a penal rate – would not constitute state aid. One might wonder, though, why with a mature inter-bank market private investors were themselves unwilling to lend in those circumstances.[32]

Support to deal with bank solvency problems would seem pretty clearly to be state aid. The relevant provision of the European Treaty provides that:

[32] See Rochet and Vives (2004) for analysis that shows that Bagehot's view can still make theoretical sense.

"Save as otherwise provided in the Treaties, any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market".[33]

The key exception relating to financial stability is that:

"The following may be considered to be compatible with the internal market: ... (b) aid to ... remedy a serious disturbance in the economy of a Member State".[34]

This "87(3)(b)" condition, as it was numbered before December 2009, had seen little use before the banking crisis.

Crisis conditions inverted the orthodox economics (and politics) of state aid cases. Normally it is to the detriment of firm A if its rival, firm B, gets public subsidy. Firm A then has every incentive to lobby the European Commission – directly or via its national government − to stop the state aid.[35] This logic applies in banking as elsewhere – in normal conditions. But if, abnormally, weakness in firm B itself jeopardizes firm A, then aid to B may be to the benefit, not detriment, of firm A, and to the wider benefit if it staves off an implosion of capacity.[36] This was certainly the case at the most acute (autumn 2008) stage of the banking crisis. A loss of confidence by depositors or other providers of uncommitted finance, arising from the difficulties of bank B, could hit the liability side of bank A's balance sheet. Its assets could be directly impaired by declines in asset prices as A seeks to de-leverage, and/or simply by heightened risks associated with inter-bank loans to bank A. In such circumstances, bank A could be a large indirect beneficiary of rescue aid to bank B, is hardly likely to complain about it, and merits no 'compensation'. The same point applies as

[33] Article 107(1) [ex 87(1)] of the Treaty on the Functioning of the European Union.

[34] Article 107(3)(b), [ex 87 (3)(b)], emphasis added

[35] The remedy for unlawful state aids – repayment to the government that extended the aid – hardly seems the best deterrent to such aid. Indeed it could be better for a government to distort competition and get the money back than not to get the refund.

[36] This is a leitmotiv of the analysis of bank bail-outs by Beck et al (2010), who stress that "banking really is different".

between member states. In a crisis, a rescue of its banks by country B may well be to the benefit of banks (and potentially taxpayers) in country A.

In some ways the Northern Rock episode in 2007 was a rehearsal for the general crisis a year later. The Commission first gave relatively speedy approval to the rescue measures taken in the initial crisis, concluding that (Bagehot-like) emergency liquidity assistance measures were not state aid but that guarantees and other support were. As to the assessment of their legality, the Commission required the submission of a restructuring plan in March 2008, which subsequently got revised as the wider crisis hit, involving a good bank/bad bank split. This two-step approach – a swift green light followed by required restructuring to meet conditions – operated on a much wider scale following the events of September 2008. Indeed, by September 2009 the European Commission had approved almost 3 trillion euros of state guarantees to the banking sector plus more than 300 billion euros of capital injections.

The Commission's general approach was set out in guidance[37] to member states on measures for banks in crisis published on 13 October 2008, in which it said that support measures could be cleared "very quickly if they fulfil conditions which guarantee that they are well-targeted and proportionate to the objective of stabilising financial markets and contain certain safeguards against unnecessary negative effects on competition". A number of competition-related conditions were stated. Access to support had to be non-discriminatory and not based on nationality. Aid had to be time-limited and last no longer than necessary. It had to be well-defined, limited in scope, and such as to exclude unjustified private benefit at taxpayer expense. There had to be appropriate private sector contribution. Beneficiaries of aid had to be bound by behavioural rules to prevent abuse such as aggressive subsidised market strategies. And crucially, there had to be "appropriate follow-up by structural adjustment measures for the financial sector as a whole and/or by restructuring individual financial institutions that had to rely on state intervention".

[37] European Commission (2008), known as the Banking Communication. Subsequent communications concerned Recapitalisation (5 December 2008), Impaired Assets (25 February 2009), and Restructuring Aid (23 July 2009).

In their assessment of how the Commission addressed the dozens of state aid cases thrown up by the crisis, Beck et al (2010) observe first that the policy response was expeditious and sensitive to the urgency and severity of the challenge. They go on to question, however, whether required restructuring measures were always well-aimed at competition concerns, and may have had an element of 'punishing' those who had taken on excessive risk with a view to curbing future moral hazard. Their main concern is that behavioural restrictions on aid recipients may tie their hands to the detriment of competition. Beck et al (page 7) conclude that "it is much better to ensure that these banks are adequately capitalised and then enforce competition on all players in the marketplace". It may be noted that questions about specific conditions, as distinct from general principles, for aid approval were addressed in 2009 after the extreme crisis conditions had abated. By then, more orthodox economics and politics of state aid may have returned, whereas at the height of the storm everyone had been in the same boat.

No doubt criticisms can be made of the Commission's response, and not just those arising from the long-standing quirks of state aid law. But overall the Commission did well. It did what had to be done by way of approving emergency aid, but in a fairly principled way that was followed by requiring restructuring measures that have been broadly pro-competitive (relative to the sometime bleak alternatives) and have helped put some limits on amounts of aid. Besides its direct impact, the Commission's stance will have given some assistance to those in member states (e.g. in finance ministries) who have themselves been striving to discipline public subsidy to banks.

3.3 In the crisis: the Lloyds TSB/HBOS merger clearance

In the UK, the crisis gave rise to a direct conflict between financial stability and competition principles in the case of the Lloyds TSB takeover of HBOS announced on 18 September 2008.[38] On the same day the Secretary of State for Business, Enterprise and Regulatory

[38] What follows draws from Vickers (2008), which was published before it became apparent that HBOS was imperilling Lloyds.

Reform announced his intention to intervene to clear the proposed merger notwithstanding the competition issues raised. UK merger law is generally competition-focused, but gives scope for the government, with parliamentary approval, to intervene on other 'public interest' grounds. On 24 October financial stability became a public interest consideration in UK merger law, thereby allowing ministers lawfully to over-ride a merger reference by the OFT to the Competition Commission. A week later the government invoked this provision to clear the Lloyds TSB takeover of HBOS. Was this a good move?

On the facts as they seemed to be in mid-September, it made some sense. There was hope that the problems of HBOS were 'just' a confidence problem, and that the takeover by Lloyds TSB would solve it, returning HBOS to a good equilibrium. On the other hand there was some risk in the other direction – that HBOS would weaken confidence in Lloyds TSB. Within a very short time, however, any hope that the crisis was just one of confidence had vanished. It was quickly clear that there were widespread problems of solvency and under-capitalization. These called for a package of *systemic* support for the UK banks and building societies, which the UK government put in place on 8 October. The Bank of England's short-term liquidity scheme was at the same time extended. While the lifting of normal merger control for the Lloyds TSB takeover of HBOS might have been a good move if it had solved a mere confidence problem – indeed its prospect may in fact have helped confidence for a week or two – it does very little for a problem of systemic under-capitalization. That needed, and got, another solution.

The takeover did pose clear risks to competition. On the same day that financial stability became a public interest consideration in UK merger law, the OFT (2008) published its competition assessment of the deal. The OFT concluded that there was a realistic prospect of a substantial lessening of competition in personal current accounts and in banking services to SMEs (especially in Scotland) relative to both the short-term situation of HBOS continuing with Government support, and the medium- to long-term situation with HBOS independent again or sold to a third party that does not raise competition concerns. In addition, the OFT found competition concerns in relation to mortgages in the medium- to long-term.

It may well be that the alternative to takeover would have been the full nationalization of HBOS. Unattractive though that might have been politically, it would have had two important economic advantages. First, it would have allowed a more competitive solution, via pro-competitive privatization once normal conditions return, than is possible with HBOS absorbed into Lloyds, notwithstanding the restructuring measures required by the European Commission (2009) to clear the state aid to the Lloyds Banking Group (as the merged entity is now known). Second, by facilitating the takeover of a failing institution by a relatively sound bank[39] – in simple terms, of a 'bad bank' by a 'good bank' − the government was doing the opposite of a detoxifying good bank/bad bank separation.[40] Such separation helps solve problems of asymmetric information and restores trust in the good bank. As it turned out, the acquisition of HBOS gravely worsened the position of Lloyds, and in 2009 the government injected £17 billion of recapitalization and ended up with 43.5% of LBG.

An outside observer not privy to the full facts cannot speak with total confidence, but it would appear to have been a mistake to waive normal merger law to address the HBOS problem once it was clear, as it was by early October 2008, that a systemic solvency problem existed. Relaxation of competition law was not a good way to help financial stability in this case, and as the subsequent problems of LBG have shown, it may have worsened it.

3.4 Competition and financial stability: a trade-off?

There is a wider question of whether strong competition between banks is inimical to financial stability as a general matter. This important issue has attracted a considerable theoretical and empirical literature, the conclusions of which are very mixed. The underlying question is how competition affects the convexity – basically the degree of asymmetry between rewards for success and penalties for failure – of returns to investment decision-makers. The more that bank(er)s keep upside returns but avoid downside losses

[39] In 2008 Lloyds TSB made a profit of £845 million while HBOS lost £7.4 billion.

[40] I thank Paul Seabright for this point.

(e.g. because of public bail-outs), the greater is their incentive to take on excessively risky investments. How does competition affect this asymmetry?[41]

A natural idea is that if banks have a lot at stake in the event of investments going bad, then they will be more cautious. This is part of the logic of capital requirements. Keeley (1990), Hellman et al (2000), Repullo (2004), and some parts of Allen and Gale (2004), explore the related idea that boosting the 'charter' or 'franchise' value of banks – namely the super-normal returns, in short 'rents', that they reap from continued operation – may likewise curb banks' incentives to take on too much risk. If competition erodes those rents, it might induce risk-taking. So, to put it bluntly, entry restrictions and a cartel to fatten bank margins could, on this view, be beneficial.

To assess this point, consider the following over-simplified framework. Suppose that a bank has a unit of deposits to invest, and that it chooses how risky a portfolio to invest in. Specifically, suppose that there is a range of assets to choose from, parameterized by the probability q that they yield a positive return. There is a riskless asset that yields a return of 1 for sure, and a range of risky asset portfolios that yield a return of $p(q)$ with probability q, which is decreasing in q, and otherwise a return of zero. (So the riskless asset is the case with $q = 1$ and $p(1) = 1$.) Under risk-neutrality the socially optimal q maximizes $R(q) = qp(q)$, which is assumed to be concave, so that $R'(q)$ is decreasing in q.[42] Therefore socially optimal q is the riskless asset if $R'(1) = 1 + p'(1) > 0$, or else the q^* such that

(2) $R'(q^*) = 0$.

[41] The following discussion concerns relationships between competition and the riskiness of banks' loan portfolios – i.e. the asset side of the balance sheet. Competition could also affect the probability of bank runs by depositors and/or other suppliers of short-term finance – i.e. on the liability side. Analysis of this leads into complex multiple equilibrium issues. The recent paper by Vives (2010) examines both aspects. He stresses interactions between competition and regulation.

[42] The notation has been chosen to highlight parallels with simple monopoly theory. In those terms R is revenue and R' is marginal revenue.

Suppose that there is full deposit insurance, the cost of which to banks is invariant to q. Then, in effect, the asset with success probability q pays out not just $R(q)$ but $[R(q) + 1 - q]$ because with probability $(1 - q)$ the state covers the losses that would otherwise fall on depositors. Since under our assumptions $R'(1) = 1 + p'(1) < 1$ always, the privately optimal strategy is to choose the $q^o < 1$ such that

$$(3) \qquad R'(q^o) = 1 .$$

Therefore $q^o < q^*$ and the private incentive is always to take on too much risk.

Suppose however that the bank goes bust if the risky asset fails, and that the owners lose value k in that event (known as 'charter value' in some of the literature). Then, in the simple setting at hand, they will choose q to maximize $[R(q) + (1 - q)(1 - k)]$, which if $p'(1) < -k$ implies optimal q such that

$$(4) \qquad R'(q) = 1 - k .$$

If k is interpreted as the NPV of the rents of continuing in business, and if those rents depend negatively upon the intensity of competition, then there can indeed be too much competition from the point of view of risk-taking.

Even in this setting, however, it does not follow that restricting competition is a good idea. First, restrictions on competition have costs in terms of efficiency (and distributionally). Second, just as charter value can be too low from the point of view of risk-taking (when $k < 1$), it can also be too high (when $k > 1$). There are good reasons to believe that competition in banking is by no means perfect, having regard to switching costs, network effects, barriers to entry, and often concentrated market structures. Even if competition were so effective so that there were not super-normal profits in the long run, an already-established bank might look forward to substantial future rents to recoup its sunk costs of investment, giving rise to substantial 'charter value' in a forward-looking sense. Third, if k needs enhancing to curb incentives to take on excessive risk, there are likely to be much better ways of doing that than by limiting competition, such as stronger (and ideally risk-adjusted) capital requirements.

The framework can be extended to address important related issues. Banks were viewed above as portfolio investors making asset choices. Boyd and De Nicoló (2005) observe that with banks as intermediaries – lending to entrepreneurs rather than investing directly – more competition can lead to greater risk-taking. In terms of the framework above, suppose then that the bank chooses the loan rate r that the entrepreneur repays if the investment is successful, and that entrepreneurs choose q given r to maximize $[R(q) - rq]$, with optimality condition

(5) $$R'(q) = r \, .$$

Higher r leads to more risk. If competition among banks presses down on r, as they seek to win loan business from one another, then more intense competition among banks *reduces* overall risk.

Another extension is to uncertain, rather than assured, bail-out by the state. Suppose that the bail-out probability is perceived as being β rather than 1. Then condition (3) is modified to become

(6) $$R'(q) = \beta \, .$$

'Too-big-to-fail' considerations suggest that β is larger the less intense is competition – see Mishkin (1999). This provides a further reason why competition may reduce, not increase, risk. On the other hand, the interconnectedness of banks may be such that β is relatively insensitive to competition.

Structural separation, along the lines of 'narrow' or 'limited purpose' banking proposals, can also be cast in the simple framework above. Implicit in the discussion so far (except for the mention of risk-weighted capital requirements) has been an assumption that q is not readily observable by regulators. Otherwise they could condition risk incentives, such as the terms of deposit insurance, on q. But even if it is not feasible for regulators to tell the difference between two levels of q that are both strictly less than one, they may be able to tell whether $q = 1$ or $q < 1$, i.e. whether or not the bank has undertaken any risky investments. That would enable a separation between riskless ($q = 1$) banks and risky ($q < 1$) ones, with the former naturally carrying out 'utility' services such as payment system operation. If – a big 'if' – there was then a credible commitment to confine public support to riskless banks[43], and never to bail out risky banks, then risk-taking incentives would be improved.

Summarizing the state of the theoretical literature in a recent survey paper, Carletti (2008) writes:

"Despite a growing interest, the literature is still rather limited and inconclusive on many aspects of the tradeoff between competition and stability. ... Whereas the prevailing view is that competition worsens the risk-taking problem because lower margins and charter values increase the attractiveness of risky investments, some recent contributions have shown that competition may actually lead to the opposite result – improving the risk of banks' portfolios once specific features of the banking system, such as the relationship with borrowers or banks' monitoring function, are explicitly taken into account."

What does the empirical evidence say? It too is ambiguous. As Beck (2008) puts it in another recent survey paper that asks whether competition and financial stability are friends or foes:

"Theory makes ambiguous predictions about the relationship between market structure and competitiveness of the banking system and banking sector stability. Empirical studies focusing on individual countries provide similarly ambiguous results, while cross-country studies point mostly to a positive relationship between competition and stability in the banking system. Where liberalization and unfettered competition have resulted in fragility, this has been mostly the consequence of regulatory and supervisory failures. The advantages of competition for an efficient and inclusive financial system are strong, and regulatory and supervisory policies should focus on an incentive compatible environment for banking rather than try to fine-tune market structure or the degree of competition."

This conclusion seems exactly right. The focus should be on the regulatory environment in which banks compete, not on subtle weakenings of competition to offset shortcomings of

[43] But why would they ever need it? Perhaps if they were nevertheless vulnerable to runs by depositors creating liquidity (but given risklessness, not solvency) problems.

that environment. There is good reason to believe that there needs to be more competition in banking, not less, especially in view of the competitively impaired post-crisis structure.

4. Does and should the crisis threaten independence?

4.1 Monetary policy

A key feature of the pre-crisis institutional consensus for macroeconomic policy was *separability* between monetary and fiscal policy.[44] Rules, rather than attempts at discretionary fine-tuning, were supposedly the order of the day for fiscal policy, and the monetary authority was left to get on with the hedgehoggery of setting the official interest rate to keep inflation on track to meet the (implicit or explicit) target. Monetary policy of course had to take fiscal policy fully into account for its implications for inflation, but so long as the overall fiscal stance and debt position was consistent with price stability, fiscal policy did not constrain what the monetary authority could do. Neither did monetary policy have direct fiscal consequences while the policy instrument was the repo rate.

With the onset of the crisis, that instrument quickly neared its zero lower bound, and the unorthodox instruments then deployed were inconsistent with monetary/fiscal policy separability. By some forms of quantitative easing, liquidity provision and a variety of other support measures, central banks took onto their books all sorts of private sector assets of distinctly sub-Bagehot quality. Since this has distributional consequences and puts the taxpayer at risk, albeit less risk than that entailed by partial or whole state ownership of troubled banks, central bank action had to be subject to political authority. In a multi-country context related issues arise with respect to risky sovereign debt. As John Taylor recently said of the ECB's role in the recent eurozone support package:

"Buying the distressed debt of some countries is not monetary policy as conventionally defined, but rather an effort to allocate funds to some creditors and borrowers and not others. Unlike a central bank's responsibility to provide for price stability and thereby

[44] Discussed in a UK context by Besley and Sheedy (2010).

economic growth, there is no established rationale that such credit allocation policy should be the responsibility of an independent agency of government".[45]

Clearly there has been some compromise of central bank independence in the crisis. A major question is whether the compromise is – and should be − temporary or permanent.

The Temporary Compromise view might be put as follows. The tool that the central bank sets independently − the official interest rate – reached its limit. New tools, which the central bank cannot set independently because of their fiscal and distributional implications, had to be deployed. Political decision-makers had to set the parameters (such as the scope for quantitative easing) and provide indemnities for their use. Throughout, however, the goal of monetary policy has remained price stability, and in crisis conditions this has meant vigorous anti-deflation policy just as in boom times monetary policy seeks to curb inflation risks. Once normal conditions return, unorthodox measures can be unwound, and we will return to conditions where the official interest rate back in positive territory, no longer marginalised, and again set independently.

On this view the independence of monetary policy is state-dependent – it holds in normal times but is, for good reason, compromised in very bad times but only for as long as they prevail. It all depends whether the policy instrument that counts for the time being is the orthodox official interest rate or unorthodox measures. Ironically, a higher inflation target, though negative for price stability, might expand the domain of independent monetary policy by reducing the chance that the official interest rate nears its lower bound (though it should not be assumed that significantly positive interest rates and unorthodox measures can never sensibly co-exist).

The Permanent Compromise view, by contrast, says that monetary policy will and should never be the same again. The official interest rate is by itself an inadequate instrument and price stability is too narrow a policy goal. As Blanchard et al (2010) put it:

[45] John Taylor, 'Central banks are losing credibility', *Financial Times*, 12 May 2010.

"The bad news is that the crisis has made clear that macroeconomic policy must have many targets; the good news is that it has also reminded us that we have in fact many instruments, from 'exotic' monetary policy to fiscal instruments, to regulatory instruments."

This does not quite say that hedgehogs – and independence – have had it as far as monetary policy is concerned, because monetary policy is one element of macro policy more generally, but it gets close. On top of that, it might be added, central bank independence is in jeopardy because of the fiscal temptation to resort to inflation to reduce in real terms some of the public debt burdens that now confront many advanced economies.

Buiter (2010), discussing this last threat, notes that the redistributional effects of such inflation – against external holders of nominally-denominated debt, especially that of long maturity, and towards borrowers (e.g. mortgage holders) from lenders – might be quite popular politically. As to how such inflation might be brought about, he sees the Fed as the least independent of the leading central banks, "a creature of Congress", but assigns low probability to a political coup radically to alter the composition of the FOMC or mandate of the Fed. He regards the Bank of England as even more vulnerable to 'political usurpation' – since, besides upping the inflation target, the Chancellor of the Exchequer could rapidly take back power from the Bank subject to Parliamentary confirmation – but argues, I suppose reassuringly, that if such moves were made

"there would, in addition to the mass resignation of the MPC, be an immediate run on Sterling and a collapse of the exchange rate that would wreck the balance sheet of the UK's large banking and financial sector. ... So the financial vulnerability of the UK economy is the *de facto* safeguard of the independence of the Bank of England."[46]

The ECB is surely not going to inflate away the euro-denominated debt burden, and individual member countries have no way of doing so. So, for these and other advanced economies, it does not seem immediately likely that public debt burdens will themselves compromise price stability in a radical way. If so, this is in large measure thanks to the institutions of independence that were created and consolidated pre-crisis.

[46] Buiter (2010, page 26-27). Over time politicians can affect the composition of monetary policy committees (and competition authorities) through appointments processes, though the latter can be made more or less independent.

As to the Permanent Compromise critique of the hedgehog (one instrument, one goal) approach to monetary policy, take first the instrument point. Could independent interest rate setting sit side by side with counter-cyclical macro-prudential regulation of credit conditions? This question is very hard to answer, not least because the economics of macro-prudential regulation is as yet unsettled. It is however worth noting that the leading paper by Gertler and Kiyotaki (2010) restricts analytical attention to a purely *real* model, so the nominal question of the purchasing power of money is a separate one.

Has the crisis permanently compromised the proposition that the paramount goal of monetary policy should be price stability? For example, should interest rate policy (in normal times) deviate from inflation targeting to deflate asset price bubbles before they reach damaging proportions? I remain sceptical of both the feasibility and desirability of such an approach.[47] Better regulation of finance and credit would seem to be a far superior way to tackle such problems. The best thing that *monetary* policy can do for long-run economic performance remains the maintenance of price stability and, crucially to that end, expectations thereof.

4.2 Competition policy

On prospects for the future independence of competition policy I will be brief. Besides the issue of agency funding[48], which is of course under political control, the elements of competition law most vulnerable to political involvement are mergers, processes associated with market investigations, and in Europe state aids. The application of the prohibitions on anti-competitive agreements and abuse of dominance has now shifted so far away from political administration into legal arenas that its independence seems assured at least for the

[47] Spotters of alleged bubbles do not always call for higher rates. Ten years ago, despite considerable asset price inflation, some argued for *lower* rates in the UK to try to get Sterling down.

[48] The last decade has seen large increases in fines for competition law breaches, especially in Europe. From a purely fiscal point of view, therefore, some competition agencies have generated considerably more public revenue than they have cost.

time being. To be sure, politicians can change the law, but the scope for that is limited as far as those prohibitions are concerned.

Competition-focused merger policy can be compromised in two ways – by clearing on 'public interest' grounds mergers that pose serious risks to competition, and by blocking ones that pose no such risks. The Lloyds TSB/HBOS case discussed above illustrates the former, and those who call for restrictions on takeovers by virtue of their being foreign (as some did in the recent Cadbury/Kraft case) exemplify the latter. Market investigations are capable of being influenced, even initiated, politically, but usually (the UK is an exception) do not lead directly to competition law remedies. As for state aids, the European Commission undoubtedly, and necessarily, operated in unorthodox fashion in 2008-9. But this reflected a recognition that in crisis "banks are different" (as discussed in section 3.2) rather than a surrender of competition principles, and as conditions have moved towards normalization, useful competition law discipline has been applied to state aid to banks, for example through restructuring plans.

It remains the case that the prospects for competition in banking have worsened considerably through the collapses and takeovers of erstwhile competitors, including by the state. A prescient observation about moral hazard and the risk of banks becoming state owned was made twenty years ago by Sam Peltzman (1989):

"[G]overnments, more or less everywhere, have guaranteed, *de facto* or *de jure*, the banks' liabilities, so that the banks' cost of acquiring them is essentially identical to the government's own cost of debt. The putative motive for this subsidy is to use the banks as the government's agents for providing a cheap, liquid substitute for government money. The quid for this quo is that banks should refrain from using their access to the government guarantee simply to maximize profits. ... However, banks in many countries have been demonstrably unable to be bound by that restraint. ... It is still unclear whether resolution of this agency problem will entail transfer of many more banks to state ownership."

Well, it has, and a major issue for the future, which will surely engage central banks and competition authorities, will be bank privatization policy. Past experience in other sectors suggests that the fiscal incentive to raise revenue (or maybe here to limit losses) can easily trump the longer-term efficiency and consumer advantages of pro-competitive privatization.

Privatization policy may also have important implications for moral hazard and the 'too big to fail' issue. All these questions will of course be shaped by the future regulatory environment. For example, the fundamental structural question of what lines of business banks may combine is of great common interest to central banks and competition authorities.

4.3 Concluding remark

A theme of the earlier discussion was that monetary authorities and competition agencies were granted independence partly for reasons of commitment but also because of a view, which held through the Great Moderation, about what monetary and competition policies can and cannot sensibly try to do. Indeed part of the commitment is that monetary policy will be focussed on price stability and not other policy objectives, and that competition policy decisions will turn only on effects on competition.

The case for independent monetary policy would be much weaker if there were a long-run trade-off between inflation on the one hand and output and employment on the other. The case for independent competition policy would likewise be weaker if, for example, a significant proportion of cartels were thought to advance economic stability or social goals, or if were believed that selectively approving anti-competitive mergers and disapproving pro-competitive ones could often promote long-run economic or social well-being.

The crisis has shaken many established beliefs about the appropriate relationship between the state and markets. Above all, the regulation of the financial system clearly requires fundamental reform. The crisis, and measures taken to stem it, has also raised serious questions about relationships between the political process and organizations within the state such as central banks and competition authorities. The independence of such bodies always was a more complex, diverse and multi-faceted issue than it may have seemed in the good times. As we have seen, independence has taken very different forms in monetary and competition policy, and degrees of independence vary over time, both backwards, as of late, and forwards.

In sum, prospects for the independence of monetary and competition (e.g. merger) policies post-crisis may depend above all on the answers to two questions. Are sound money and free markets still (appreciated as being) fundamental to long-run prosperity? Are there other important objectives that monetary and competition policies can usefully pursue in addition to price stability and markets free from threats to the competitive process? My answers, in short, would be yes and no respectively, but the political debate may result different conclusions. In any case let us hope that it is influenced by good economics.

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