

COMPETITION POLICY IN RECESSION AND FINANCIAL CRISIS

Background paper prepared by the CC economics staff

Introduction

1. A rapidly growing debate is taking place on both sides of the Atlantic concerning the role of competition policy during an economic crisis such as the one currently being experienced around the world. The OECD has organized a recent roundtable on this topic and many prominent academics and practitioners have expressed a view. The CC hosted a roundtable of its members and a number of invited guests on 30 March 2009. This paper was prepared to assist the roundtable.
2. The aim of this paper is twofold. First, it aims to provide a synthesis of the main issues being considered in the broad debate taking place. In doing so, it aims to set out the key terms of the debate and where views tend to diverge. Second, it aims to discuss some issues that are more relevant to the role that the CC might play within the UK competition regime in the near future. This paper is intended as an aid to discussion of these topics rather than an espousal of any firm views. In particular, it does not represent CC policy on any particular issue.
3. The structure for this paper is as follows. First, in section 1, we offer some background to the unfolding debate. We focus on the role of competition policy in the economy as a whole and the causes of the current economic crisis. In section 2 we discuss whether there is a case for a different approach to competition policy in the current economic environment either in the economy as a whole, or in specific sectors of the economy, particularly looking at the financial services sector. Finally, in section 3, we focus on some of the challenges the competition regime may face in a recession and financial crisis and the possible role that the CC and other competition authorities may have going forward.

1. Background: competition, the economy and the financial crisis

Competition and the economy

4. There is near consensus among economists that competition policy has a strong role to play in improving the productivity (and therefore the growth prospects) of an economy, regardless of the position of that economy in the business cycle.
5. Competition, according to much economic theory, encourages commercial firms to allocate resources efficiently and to innovate. Competing firms are forced to develop new products, services and technologies at the lowest possible cost. This gives consumers greater choice, and better products at lower prices. This process typically causes prices for products to converge to their marginal cost.
6. Empirical evidence generally supports this theory. Ahn (2002) surveys the literature on the link between competition and innovation and concludes that competition encourages innovative activities and increases productivity. He also concludes that dynamic long-run gains from competition are likely to dominate the short-run efficiency gains since firms will continue to innovate. Very large effects have also been observed in transition economies that provide a natural laboratory to consider the effect of competition (see Djankov and Murrell, 2002, for a survey).

How did the current crisis come about and was competition a factor?

7. The FSA published the Turner review in March 2009.¹ This document provides a comprehensive description of the crisis as it unfolded. The review summarizes the causes of the global financial crisis as follows:
 - Characteristics of the new global financial system, combining with macroeconomic imbalances, helped create an unsustainable credit boom and asset price inflation.
 - Those characteristics then played a crucial role in reinforcing the severity of the financial crisis and in transmitting financial system problems into real economy effects.
 - The shock to the banking system has been so great that its impaired ability to extend credit to the real economy has played and is still playing a major role exacerbating the economic downturn, which in turn undermines the banking system strength in a self-reinforcing feedback loop.
8. The Turner review cites a number of factors that drove the initial overextension of credit, and factors which played a role in increasing the length and severity of the crisis. These factors include the growth and increasing complexity of the securitized credit model, extensive commercial bank involvement in trading activities, high leverage, increasing dependence on market funding, hard-wired pro-cyclicality in banks' systems and processes and a lack of adequate capital buffers.
9. There would seem to be no obvious link between the degree of competition in the financial sector and the causes of current financial turmoil as set out in the Turner review. However, the desirability of competition in financial markets and the role of competition policy in the financial sector has been the subject of debate in the past. This is primarily because of concerns that the stability of the financial system may be undermined by intense competition and there is a possibility that these concerns may return to prominence.

2. Is there a case for a different approach to competition policy in the current economic climate?

10. In this section we look at whether there is a case for a different approach to competition policy in the current crisis. We begin by discussing whether there is a case for a different approach to competition policy as a whole in the current economic climate. We then assess whether there are features of specific sectors of the economy which may warrant a different approach in those sectors.

Is there a general case for relaxing competition policy in a recession?

11. While there is general agreement among economists that competition policy has a strong role in improving the productivity of the economy, there are calls, as often is the case in recessions, for state assistance for firms in difficulty, including calls for a temporary or even permanent softening of competition policy.
12. Recent examples of interventions to support firms include state assistance for banks and other financial institutions in the USA and the EU, and state aid for car makers in the USA. There are growing calls for assistance of a different type through the

¹www.fsa.gov.uk/pubs/other/turner_review.pdf.

relaxation of merger controls for local newspapers in both the USA and the UK.² So far governments appear to have largely resisted calls to soften competition policy, and have made attempts to provide assistance to firms broadly within the existing competition framework. However, in the past competition policy enforcement has softened in periods of economic crisis.³

13. There are a number of reasons why a softening of competition policy may be superficially attractive in periods of financial crisis. Relaxation of certain elements of competition policy enforcement, for example in relation to merger control and antitrust enforcement, can appear, at least superficially, to be a relatively 'cheap' option in that they will not entail the disbursement of funds from taxpayers. Instead the costs of these measures typically accrue in the form of higher prices, lower product quality, reduced efficiency and reduced innovation. These costs tend to fall on the customers of firms who are often a large and disparate group of individuals. However, the benefits of a relaxation in competition policy will typically flow to a smaller group, namely the shareholders and management of the industry in question.
14. Softening competition policy can therefore appear to be an attractive means to assist firms in financial difficulty and it may also appear superficially attractive in order to achieve wider policy aims, such as to maintain or expand the level of economic activity and boost the economic recovery. It is sometimes said that the policy aims of efficient competitive markets and of full employment might be inconsistent and that perhaps a robustly enforced competition policy is a 'luxury' that can be ill afforded in a serious recession.
15. There are many reasons for policymakers to be wary of calls to relax competition policy in recession or during economic crisis. First of all, a relaxation of competition policy is, as we discuss in more detail in section 3, an inefficient means to assist firms in financial difficulty. Similarly relaxing competition policy is an ineffective, and even counterproductive, means to boost the economy and encourage recovery. Competition policy, as a whole, is designed to counteract market failure, and in particular market power. Firms with market power have incentives to restrict output, to raise prices and have weaker incentives to invest and innovate. In general, therefore, policies which result in increased market power can prove counterproductive, since further restrictions in output and productivity are likely to exacerbate the effects of recession and slow the recovery.
16. These problems have tended to be borne out in practice when, in the past, governments have sought to relax competition laws in a downturn. Policies to relax the competition regime in periods of economic crisis have often proved unsuccessful or even counterproductive.
17. For example, one policy response to the Great Depression in the USA was the National Industrial Recovery Act of 1933 (NIRA). The NIRA attempted to suspend certain aspects of the US antitrust laws and permitted firms to collude to fix prices and quantities in some sectors provided that industry raised wages above market-clearing levels and accepted collective bargaining with independent labour unions.⁴

²See, for example, 'Call for mergers to save regional papers', *Financial Times*, Tuesday 17 March 2009. The head of the largest regional newspaper company said that the industry faced 'immediate peril' and called for the government to recognize the merger regime as obsolete.

³See Daniel A Crane, 'Antitrust Enforcement During National Crises: An Unhappy History', *Global Competition Policy*, December 2008.

⁴For a fuller description of the NIRA and its effects, see John D Harkrider 'Lessons from the great depression', *Antitrust*, spring 2009, Volume 23, No 2.

18. It is a widely held view among economists that these policies did not help the economic recovery after the Great Depression and may even have exacerbated the Depression. Christina Romer, now the Chair of the President's Council of Economic Advisors in the USA, concluded that the NIRA diminished the responsiveness of price to output and thus 'prevented the economy's self-correction mechanism from working'.⁵ Cole and Ohanian (2004) find 'that New Deal cartelization policies are a key factor behind the weak recovery, accounting for about 60 percent of the difference between actual output and trend output' and lengthened the Great Depression by seven years.
19. Harkrider (2009) points out that 'firms in cartelized industries are unlikely to innovate, especially where such innovation leads to new products and competitors that are likely to challenge incumbents. Thus, it is perhaps not surprising that according to one study,⁶ there were few, indeed, almost no, new products introduced in the late 1920s and 1930s that could drive increases in consumer spending or investment'.
20. Other evidence comes, for example, from Japan. Sakakibara and Porter (2001) explore the influence of domestic competition on international trade performance, using data from a broad sample of Japanese industries. They 'find robust evidence that domestic rivalry has a positive and significant relationship with trade performance measured by world export share, particularly when R&D intensity reveals opportunities for dynamic improvement and innovation. Conversely, trade protection reduces export performance. These findings support the view that local competition—not monopoly, collusion or a sheltered home market—pressures dynamic improvement that leads to international competitiveness.
21. In summary, there would appear to be no good economic reasons why competition policy should, as a general rule, differ in periods of economic growth or periods of recession. Competitive industries, under most conditions, utilize resources more efficiently, are more innovative and produce more output at lower cost than industries where competitive pressure is weak. Historically, setting aside competition law temporarily during recession has proved to be an unsuccessful policy and there is some evidence that policies of this type have, in practice, acted as a drag on economic activity and hindered economic recovery.

Is there a case for a different approach to competition policy in specific sectors of the economy?

22. Whilst as a general rule there would appear to be benefits to maintaining competition policy in a recession, it may be that a selective change in approach might be warranted in specific sectors of the economy. In this section we look first at the sector at the heart of the current crisis, the financial sector, to assess whether specific features of this sector warrant an adapted approach. We then assess the case for a different approach in the non-financial sectors of the economy.

Intervention in the financial sector

23. Several commentators note that financial institutions such as banks are different from other businesses.⁷ In the view of many, not least the bankers themselves, unique

⁵Romer (1999).

⁶Szostak (1995).

⁷For a fuller discussion of the unique features of the financial system, see B Lyons, *Competition Policy, Bailouts and the Economic Crisis*. Draft CCP Working paper: 09-04, and John Vickers, 'The Financial Crisis and Competition Policy: Some Economics', *Global Competition Policy*, December 2008.

features of banking justify policies, such as significant state aid, that would not be considered appropriate in other industries.

24. The role of banks is to help smooth consumption and investment of consumers and firms, allocate assets to their most efficient use, improve the problem of asymmetric information between investors and borrowers, and in some cases improve corporate governance by monitoring borrowers. These are important and valuable activities. However, there are three key features of banking that make banking inherently unstable, that make the banking system collapse—particularly damaging to the wider economy—and may warrant a consideration of policy actions that would be considered inappropriate for other sectors of the economy.
25. First, banks collect short-term deposits and invest in long-term assets. This creates a maturity mismatch between a bank's liabilities (deposits) and its assets (loans) and creates an inherent instability. Banks therefore rely on confidence to maintain their short-term viability. Whilst depositors are confident in the security and stability of their bank, they are happy to hold the majority of their funds as deposits with the bank. This allows banks to lend a multiple of those deposits and supports their lending business. However, should that confidence fail, then depositors may seek to withdraw their deposits, causing a 'bank run'.
26. In addition to the inherent instability of individual banks, the banking sector as a whole is unstable due to the negative effects of the failure of one bank on the stability of its remaining rivals. In many markets, when a firm fails, its remaining rivals often benefit by buying up the failed firm's most productive assets and acquiring their rivals' former customers. One particular feature of banking is that rather than benefiting the remaining firms in the industry, the failure of a bank can harm its rivals. For example, a loss of confidence in one bank can quickly spread to others and lead to 'contagion'. Similarly, banks are heavily interlinked (through the inter-bank market where they can lend to, or borrow from, each other) and so the failure of one bank can lead to an increase in bad debts within its rivals. This distinctive feature of the banking system does not seem to apply to other sectors within the economy.
27. A further feature of the banking industry is that banking services are an essential input for almost all other economic activity in the wider economy. Firms throughout the economy rely on banks to absorb and smooth fluctuations in revenues and payments and to fund investments. Consumers rely on banking services to smooth fluctuations in income and expenditure and to fund large purchases. There would appear to be no other sectors of the economy which have as powerful and pervasive an influence on the wider economy.⁸
28. Other sectors of the economy may be unstable; but their collapse may not have such an impact on the wider economy. Similarly, other sectors of the economy may produce important inputs for other economic activity; but these sectors would not appear to exhibit the same instability. The combination of the three features outlined above, which render individual banks, and the banking system, unstable and which make banking system crises such a damaging phenomenon, would appear to be unique to the banking sector and may provide a rationale for 'special treatment' of the banking sector.

⁸Although some sectors, such as electricity generation and distribution, telecommunications and water services, may also have a powerful and pervasive effect on other areas of the economy, none would seem to have quite as broad and powerful an effect as banking services. In addition, in these sectors there would appear to be a less direct link between financial difficulties and the productive capacity of the firms in difficulty. In many sectors, financial difficulty, or even the financial collapse of a firm, can be resolved without an interruption to the supply of its goods or services to the wider economy. In contrast, financial difficulties in the banking sector can have a significant and lasting impact on the ability of banks to lend to the wider economy.

Is there a trade-off between competition and stability in financial markets?

29. Competition should, in theory, have similar benefits in the financial sector as it has in other markets. It encourages financial institutions to allocate capital efficiently, to minimize cost and to innovate. Numerous academic papers have shown that deep and efficient financial systems are important for economic growth and poverty alleviation (see, for example, Beck, Levin and Loayza, 2000).
30. There has been a general trend towards reduced regulation in financial services and a perception of increased levels of competition since the 1980s. However, recent events have shown that these general trends were concurrent, at least in later years, with an increase in the vulnerability of the banking system. It is therefore tempting for policymakers and commentators to speculate on whether there is a causal link between increased competition and instability in the financial system. In the remainder of this section we discuss the theoretical underpinnings of the debate over competition and stability in financial services and the available evidence on whether there is any trade-off between stability and competition.
31. There is an extensive theoretical and empirical literature focusing on the relationship between competition and stability in the financial sector. We summarize some of this literature in [Appendix A](#). In general, the theoretical literature is mixed and economic theory makes ambiguous predictions about the relationship between competition and stability. Some theoretical work supports the competition fragility theory. For example, papers by Diamond (1984), Allen (1990) and others suggest that larger banks (in a more concentrated banking industry) can better diversify their portfolios, increasing their stability. However, Mishkin (1999) and others suggest that concentrated banking systems can result in reduced stability as banks become 'too big to fail' and that this encourages greater risk taking.⁹
32. Empirical studies of the relationship between competition and stability in the banking sector similarly yield mixed results. Gathering convincing evidence in this area is difficult as there are few reliable measures of competition or banking stability.
33. Papers that examine the relationship between competition and stability of the financial sector fall into two broad categories. The first category uses data on individual banks within a national market, whilst the second category of studies looks at differences in competition and stability across countries.
34. The evidence from empirical studies of individual bank data is mixed. One reason for this mixed evidence could be that a higher degree of market concentration does not necessarily imply less competition. So studies that concentrate on the effect of concentration cannot necessarily answer questions about competition and stability. Furthermore, regulatory and supervisory frameworks interact with competitiveness in their effect on banking system stability. Studies based on individual bank-level data in a country cannot control for the different regulatory regimes across countries.
35. In contrast, the evidence from cross-country studies tends to support the view that there is a positive relationship between competition and stability but yields similarly mixed results on the relationship between concentration and stability.
36. In summary, there is as yet no clear conclusion regarding the relationship between competition and stability in the financial sector from the theoretical and empirical literature, although there would appear to be some support for the view that compe-

⁹This is just one selective example. See [Appendix A](#) for a more comprehensive discussion of the theoretical and empirical literature.

tion improves stability from cross-country empirical studies. Were evidence of such a trade-off to appear, however, it is not immediately clear that the appropriate policy response would be to relax competition policy in some way or to limit inter-bank competition.¹⁰ It may be that targeted regulatory intervention might lead to better outcomes by addressing the specific causes of instability without the risk of consumer harm as a result of reduced competition. We note, however, that there are considerable challenges involved in designing regulation to enhance banking stability.¹¹

Intervention in the non-financial sectors of the economy

37. In this section we look at whether there are arguments for intervention to support firms in difficulty, or to relax competition policy in sectors of the economy, outside of the financial sector, during a recession or economic crisis.
38. In general, non-financial sectors of the economy do not display the unique combination of features of banking which make that sector unstable and which make banking crises particularly damaging to the wider economy. The case for intervention to support firms in other sectors of the economy is therefore less compelling. For example, in more stable sectors the collapse of one firm may not disrupt the operation of whole market.¹² Similarly, in sectors with a less pervasive effect on the wider economy firm failure can be accommodated without damaging effects on the wider economy.
39. As discussed in section 1, there is no general reason to alter competition policy in a recession. The exit of inefficient firms is an important aspect of a well-functioning market. When inefficient firms fail, more efficient firms generally benefit and are able to expand by acquiring the business of their former rivals. Periods of recession can therefore lead to longer-term productivity gains by inducing the exit of inefficient firms leaving behind a more efficient and more competitive industry.
40. However, the process of firm exits in a recession can be painful, particularly where impact of firm failures is geographically concentrated. A common view among economists is that the most effective policy response to deal with the negative consequences of firm exits is to focus state support on the adjustment process through, for example, retraining workers to allow them to move quickly to other, more productive, firms or industries. Focusing state support on maintaining inefficient firms is generally regarded as a less effective approach.
41. Although the general case for intervention outside the financial sector would appear relatively weak, there may be features of the current economic crisis which may warrant a more active approach. As discussed above, the process whereby inefficient firms exit markets is an important aspect of well-functioning markets. However, this process may be distorted by the current financial crisis. In a period where credit markets are not operating normally and the availability of credit is heavily constrained, efficient firms may exit markets due to a combination of reduced demand and arbitrary financial constraints. This could affect, in particular, small firms, as they may be more reliant on bank finance.

¹⁰Indeed, some of the theoretical insights discussed in [Appendix A](#) suggest that, in certain circumstances, this may be counter-productive and increase the fragility of the system.

¹¹See, for example, paragraph [74—check x-ref] in Appendix A.

¹²For example, the failure of one firm in the telecommunications sector may not lead to a disruption in the operation of the wider telecommunications sector.

42. For example, in markets where customers rely on credit markets to fund their purchases (for example, housing and automobiles), a disruption in credit markets can lead to dramatic, short-term reductions in demand which may lead to a larger-scale exit of firms and production capacity than may be considered optimal. Similarly disrupted credit markets may distort the exit process itself, so that instead of the most efficient firms remaining in the market, it is those firms which happen to have a more favourable financing profile that survive the crisis. For example, an efficient firm may exit the market simply because of the maturity profile of its debts or because it happens to place more reliance on debt financing. The combination of these factors may lead to more concentrated or inefficient markets in the future in some sectors.
43. The most direct response to problems of this type might be to address the source of the problem through interventions to repair the banking system and to enable a return to normal conditions in the credit markets. However, the resumption of normal lending by the banking system may not be achievable sufficiently quickly to prevent some of the undesirable outcomes outlined above in paragraph 42. We discuss in greater detail the challenges that the competition authorities may face in these circumstances and how competition authorities might adapt in section 3.
44. In summary, the general case for intervention outside the banking sector, during recession, appears relatively weak. However, it may be that the current financial crisis provides a rationale for intervention to prevent a distortion in the normal market exit process. That said, it is not clear that there is any good policy response to this problem other than policies to encourage a rapid and orderly recovery of the banking system. We discuss the different types of intervention that might be taken, and in particular the role that the competition authorities might play, in the next section.

3. The role of the competition authorities in times of recession

45. In this section we look at the challenges that the UK competition regime may face during the recession and the current financial crisis. We also assess the extent to which UK competition authorities could or should adapt their approach to competition enforcement in the context of the recession and the financial crisis.
46. We begin by discussing how the current economic crisis might affect the work of the competition authorities in four key areas of competition policy: merger control, market investigations, cartels, and finally state aid. We then discuss the role that the CC and other competition authorities may have in making the case for competition policy and contributing to an informed debate in the wider public arena.

Mergers

47. The effect of the financial crisis and recession on UK merger activity could be expected to work in two different directions. On the one hand, mergers and acquisitions have become very difficult to fund due to the credit crunch, so we may see less activity. On the other hand, the current economic climate is likely to increase the number of failing firms and lead to attempts at consolidation in some sectors. We have not, so far, seen a marked change in merger activity in the UK or a change in the composition of cases coming through the merger control system. One of the challenges which the competition authorities may face over the course of the recession is an increase in mergers where the parties put forward a failing firm defence.
48. There are a number of other potential areas where the competition authorities are likely to face issues that have been relatively rare during the recent past. For

example, firms will claim that the recession has led to excess capacity in an industry. Claims that firms are constrained by credible threats of entry may be more difficult to establish in a world where entry and expansion are difficult to finance. Sectors where the main competitive constraint comes from abroad could be particularly problematic, if the pound remains depressed for a number of years. Counterfactuals in an economy, characterized by a severely limited access to credit and a significant fall in demand, may look quite different from those that have been observed over the last decade and a half of growth and stability. Consequently competition authorities' analysis of, and judgements regarding, the appropriate counterfactual could well become more difficult.

49. Mergers involving genuinely failing firms may well be competitively benign. For example, where the exit of a competitor is inevitable, and there is no prospect that another firm might take over the assets of that firm, then no rivalry is lost if the failing firm is taken over by a former rival. Mergers of this type can often result in economic benefits, for example, if they prevent productive assets from exiting the industry. The existing merger control regime already contains a mechanism for allowing mergers of this type under certain conditions. The OFT has recently published a note restating its approach to failing firms.¹³
50. The UK is also experiencing a banking crisis, which has resulted in heavily reduced lending by banks, and may even result in firms which would be regarded as viable in normal conditions facing failure due to largely arbitrary credit constraints. This may distort the normal process of market exit, where the least efficient firms fail first, and result in efficient firms exiting the market, due to their debt profile, whilst less efficient firms, with a more favourable debt profile, may survive. There would seem to be no obvious reason to change the existing 'failing firm' criteria in these circumstances. However, this may be an area that the competition authorities need to consider in more detail should cases of this type arise.
51. More generally, there are already calls in some sectors for a more general relaxation of merger control, over and above the failing firm criteria (see paragraph 12). As discussed above in paragraphs 11 to 21, great care is needed when reviewing calls for relaxation of competition policy in general, as the results can be counterproductive, and may result in longer-term damage to the competitiveness of the economy. However, should policymakers decide that some form of support is necessary, merger policy would seem one of the less effective instruments with which to support firms in difficulty.
52. First, allowing an otherwise anti-competitive merger introduces further market failures rather than addressing the cause of the firms' financial difficulties. In addition, in contrast to other policy instruments which might be used to aid firms in difficulty, merger policy is a less effective tool. For example, in contrast to state aid, the benefits to firms from allowing an otherwise anti-competitive merger are slow to take effect, as the monopoly profits often take time to accrue. A further disadvantage of merger policy as a tool to assist firms in difficulty is that the costs of this type of measure, in terms of increased prices, lower-quality products and reduced innovation, could potentially persist in perpetuity. Finally, whereas state aid can be made conditional on certain actions by the target firms, such as restructuring, it is generally very difficult to apply conditions to the clearance of an otherwise anti-competitive merger.

¹³www.of.gov.uk/shared_of/business_leaflets/general/of1047.pdf.

53. There may, however, be other changes to the operation of the merger regime that the competition authorities may consider. For example, there may be opportunities to speed up the merger process. In the context of mergers in the media sectors, the OFT has stated publicly that it may be possible to accelerate the treatment of cases for referral to the CC where this corresponds with the wishes of the merging parties and where there is sufficient evidence available to meet the OFT's statutory threshold for reference. In such fast-track cases, the OFT would expect that the overall time taken from formal notification to reference decision could be as little as ten working days.¹⁴ Other changes, such as early consideration of failing firm issues in the merger process, could also be considered as a way to adapt the merger process in the current crisis.
54. Remedies is an important area where the competition regime is likely to face particular problems due to the economic climate. Divestment remedies, in both mergers and market investigations, are likely to be complicated if potential buyers face difficulties in raising finance. It is quite possible that, as a consequence, the merged parties in completed mergers could face significant losses. It is also possible that financing constraints could prove so extreme that there is no buyer forthcoming for divested firms at all. In these cases, the competition authorities will need to have behavioural remedies prepared to replace a structural remedy that proves impossible to implement.

Market investigations

55. There would not appear to be an obvious role for market investigation references in dealing with the financial crisis, or the recession, in the short term. However, as noted in paragraphs 41 and 42, the current financial crisis may distort the normal process of market exit resulting in some efficient firms failing due to their financial position, and even perhaps some inefficient firms (with good lines of credit) remaining in the market at the expense of more efficient firms. More generally, if firms fail in markets with high entry barriers, this may lead to competition problems in the future, for example through increased concentration.
56. The UK regime is perhaps better placed than the regimes in other countries to cope with the possible effects of the recession and financial crisis on competition in the medium to long term. In the UK, the market investigation regime allows the competition authorities to look at markets where the crisis has led to distortions and impose remedies to correct any adverse effects on competition. This may mean that calls for softening of the competition regime in the UK have less force, because the ability of the UK regime to deal with problems at a later stage, through market investigations, provides a viable alternative.

Cartels

57. As with mergers, it may be the case that the recession results in an increased case-load for the competition authorities as recessions can result in so-called 'crisis cartels'. There may also be calls for the relaxation of price-fixing rules, or a reduction in enforcement activity. Calls for ordered restructuring of industries or firms colluding on the removal of spare capacity are typical of the forms of cartelization that are likely to be seen in a recession.

¹⁴www.offt.gov.uk/shared_offt/business_leaflets/general/oft1069.pdf.

58. One policy response to the Great Depression in the USA was the National Industrial Recovery Act of 1933. The NIRA suspended the US antitrust laws and permitted firms to collude to fix prices and quantities in some sectors provided that industry raised wages above market-clearing levels and accepted collective bargaining with independent labour unions.
59. It is a widely-held view among economists that these policies did not help the economic recovery after the Great Depression and may even have exacerbated the depression. Cole and Ohanian (2004) find 'that New Deal cartelization policies are a key factor behind the weak recovery, accounting for about 60 percent of the difference between actual output and trend output'.
60. A softer version of the regime softening argument may come in the form of calls for reduced fines because of the risk that, during financial crisis where firms' credit-raising abilities may be constrained, the imposition of large fines may cause firms to fail because of insufficient cash flow.¹⁵ These calls will of course need to be treated with care as there are clear incentives for firms to exaggerate their financial vulnerability in order to reduce their fines. In normal circumstances, with adequately functioning credit markets this argument can be ignored. However, this may be an area where competition authorities may usefully engage by, for example, clarifying their policy in this area and emphasizing the fact that cartels are illegal regardless of market conditions.

State aid

61. State aid can be an effective policy tool to deal with economic crisis in key sectors such as banking. However, intervention of this type must be taken with care as state aid can create distortions of competition which may lead to poor economic outcomes in the longer term.
62. As discussed in paragraphs 25 to 28, there may be specific features of the banking sector in particular that mean that allowing a bank to fail may result in large-scale damage to the financial sector and the wider economy. There is therefore an argument that state intervention makes good economic sense, in this sector, at least in the short term.¹⁶ In particular, state aid has a number of advantages over other types of intervention. For example, state aid can have an immediate effect on the firms in question whereas the benefits of other policy measures may take time to accrue. State aid can be made contingent on certain policy actions such as restructuring. Finally, state aid can, at least in theory, be time limited, and assistance lifted once the crisis has passed.
63. However, state aid to firms in times of crisis is not without risks. State aid that is not applied carefully can distort competition if aid is provided selectively to some firms and not to others. Selective aid can give poorly-performing or distressed firms an undue advantage over better-performing or more stable firms. The result can be that more efficient firms are starved of market share, and less efficient firms can avoid or defer important restructuring. More generally, it is very difficult for government to distinguish efficient and inefficient firms and selective support can lead to 'picking winners' or supporting 'national champions' which may disadvantage more efficient firms. This can distort competition in the market, distort incentives, increase moral hazard and weaken the overall competitiveness of a sector.

¹⁵See, for example, 'Should competition authorities reduce cartel fines in light of the credit crunch?' *LECG News*, Issue 4, Spring 2009.

¹⁶See, for example, John Vickers, 'The Financial Crisis and Competition Policy: Some Economics', *Global Competition Policy*, December 2008.

64. State aid within the EU is governed by EC regulations which are designed to mitigate these risks. The European Commission has for many years assessed state aid to undertakings in difficulties against the Community Guidelines on state aid for rescuing and restructuring firms in difficulty.¹⁷ However, in the light of the seriousness of the current crisis in financial markets, and the specific features of the financial sector, the European Commission has recognized that restructuring banks in difficulty may be necessary to avoid serious disturbances in the economy of member states. The Commission has in recent months adopted complementary guidance setting out standards and safeguards for the application of state aid rules to the financial sector.¹⁸
65. The European Commission approach to state aid control is to ensure that that aid does not exceed what is strictly necessary to achieve its legitimate purpose and that distortions in competition are avoided or minimized as far as possible. In taking account of the current financial crisis, the European Commission rules state that all support measures have to be:
- well targeted in order to be able to achieve effectively the objective of remedying a serious disturbance in the economy;
 - proportionate to the challenge faced, not going beyond what is required to attain this effect; and
 - designed in such a way as to minimize negative spill-over effects on competitors, other sectors and other member states.
66. In summary, there is perhaps a case for an adapted approach to state aid in times of financial crisis. This adapted approach is already in effect, with the European Commission publication of complementary guidance setting out standards and safeguards. These safeguards attempt to both recognize the current economic reality, and the need for action in the short term, whilst maintaining the longer-term benefits of competitive markets. It would appear that both aims can be achieved largely within the existing system and principles governing state aid in the EU.

Competition advocacy

67. There is clearly a role for the competition authorities as a whole in making sure that competition issues are taken into account in the wider policy arena and to provide a counterweight to calls in favour of relaxing competition policy that have been seen in previous crises and which we may be seeing the beginnings of in the current crisis.
68. In particular, it would seem sensible for the competition authorities to engage in advocacy in some of the following areas:
- *Making the case for robust competition policy in recession.* There would appear to be good economic reasons to believe that robust enforcement of competition law will help the economy recover more quickly (see, for example, paragraph 18) and in addition will leave the economy better placed to exploit the subsequent

¹⁷OJC 244/2 of 1 October 2004.

¹⁸Commission Communication on the application of state aid rules to measures taken in relation to financial institutions in the context of the current global financial crisis (OJC 270/8, 25 October 2008) and the Commission Communication on the recapitalization of financial institutions in the current financial crisis: limitation of aid to the minimum necessary and safeguards against undue distortions in competition (OJC 10/2, 15 January 2009). The Commission plans to publish further guidance regarding impaired assets relief schemes.

recovery. There is clearly a role for competition authorities in publicizing these arguments and the evidence to support them.

- *Contributing to an informed debate on specific issues.* There are a number of areas where there is a perception that competition policy is somehow at odds with other policy objectives such as recovery or financial stability. The ongoing debate on competition and stability in the banking sector is an example of an 'emerging issue' on which the competition authorities may have a role in 'setting out the facts', for example by collecting and evaluating the theoretical and empirical evidence.
- *Providing support to other government departments.* The CC and the OFT have considerable analytical resources and there may be a role for the competition authorities by providing analysis and support, for example on new policy measures to address the crisis. The OFT already has an established role in this regard as part of its involvement in Regulatory Impact Assessments. New regulation has the potential to result in unintended consequences, perhaps by damaging the competitive process.¹⁹ There is an important role for the competition authorities in using their analytical capacity to identify instances where this might be the case with new regulation. Where this is the case, the authorities have a role both in highlighting the costs of any damage to competition so that these can be properly taken into account and, where possible, in advocating regulation that ensures financial stability whilst preserving the conditions for effective competition.
- *Clarifying policy.* There may be a role for the competition authorities in providing timely guidance on the application of competition policy in the financial crisis. There can sometimes be a perception that the policy aims of crisis resolution and economic recovery and the policy aim of competitive markets are mutually exclusive. This is not necessarily the case. Where possible, the competition authorities can show that policy aims of crisis resolution and recovery can be achieved within the competition framework. Competition authorities are already engaging positively in this way, for example through the publication by the European Commission of complementary guidance on state aid (see paragraph 64) and the recent publication by the OFT of its policy regarding 'the failing firm defence' in merger transactions (paragraph 49).
- *Sensitivity to the wider policy context.* Whilst in many instances both the policy aims of competitive markets and economic recovery can be achieved together, there may be instances where this is not achievable. Similarly, it is important to remember that competition is only one, albeit important, element of effective and well-functioning markets. Many areas of competition policy recognize these wider considerations (for example, within the public interest provisions of merger control under the Enterprise Act). There may be a role for the competition authorities in assessing whether the flexibilities within the system are sufficient, given the current crisis. Where the system does contain sufficient flexibility, the competition authorities may have a role in highlighting the flexibility of the existing system to accommodate wider policy conflicts of this type.

¹⁹For example, regulation might reduce competition if the costs of regulation are more easily borne by large firms, creating anti-competitive economies of scale. Regulation could impair innovation by delaying new products or services, adding cost to the innovative process and giving competitors the chance to imitate. Finally, regulation can also, potentially, raise barriers to entry for new firms.

Theoretical background and empirical evidence on the existence of a trade-off between competition and stability in banking

Economic theory

1. Economic theory makes ambiguous predictions about the relationship between the competition and stability. Some theoretical work supports the contention that competition induces fragility in the financial system; however, other theoretical work supports the alternative view, that competition is neutral or even beneficial to the general stability of the financial system.
2. The main theories supporting the competition-fragility theory are based on the following features of the financial industry: incentives to take excessive risks (moral hazard), asymmetric information between lenders and borrowers, risk of contagion, lack of diversification and the role of regulators and supervisors.¹
3. One generic problem in both the theoretical and empirical literature is that it is generally very difficult to measure the level or intensity of competition. Many studies in this area use the degree of market concentration as a proxy for competition. There is near consensus among competition economists that concentration is, in general, a poor proxy for the intensity of competition. Considerable care is therefore needed when evaluating the theoretical and empirical evidence for a trade-off between competition and financial stability, to distinguish those studies that provide evidence of a relationship between *competition* and financial stability and those that provide evidence of a relationship between *concentration* and financial stability.

Moral hazard, excessive risk-taking

4. The excessive risk-taking or moral hazard theory is based on the idea that profits can provide a buffer against fragility and provide incentives for the bank to choose less risky investments. According to this strand of theory, in a more competitive environment banks' profits are lower and so 'betting the bank' on some high-risk high-return investment is more attractive. Banks could benefit from the upside of the bet without suffering too much from the consequences of the downside. So higher competition and lower profits leads to instability. (See, among others, Keeley, 1990.)
5. Boyd and De Nicolo (2005), however, argue that borrowers, not banks, choose the riskiness of their investment. If a concentrated banking system leads to market power and thus a higher lending rate, this may induce borrowers to assume greater risks. As a result, the probability that borrowers default is higher at higher interest rates. Their prediction is that lower competition and higher interest rates lead to instability.

Asymmetric information

6. Asymmetric information arises in the financial sector since borrowers typically know more about the risks of their investment than lenders. Having a long-term relationship between borrowers and the bank could help with this problem and provide higher incentives to properly screen and monitor borrowers. In a more competitive environment, with more switching between competing banks, long-term relationships are

¹For recent survey of the academic literature, see Beck (2008).

more difficult to maintain. The consequent decrease in monitoring and screening increases the fragility of the banking system. (For example, Allen and Gale, 2000, 2004.)

Contagion

7. Inter-bank and payment systems links could also increase the fragility of the banking system. In a perfectly competitive environment no bank has an incentive to provide liquidity for a bank with a temporary shortage. This can result in a failing of the troubled bank that could lead to contagion through the links between the banks and decrease the stability of the whole sector. (Allen and Gale, 2000.)
8. On the other hand, Acharya et al (2008) show that when the outside options of liquidity-needy banks are weak, banks with surplus liquidity may use their market power in inter-bank liquidity transfer markets and strategically under-provide lending, thereby inducing inefficient fire sales of bank-specific assets. Having larger banks in a more concentrated industry could therefore increase the links in between them and thus increase the contagion risks and the fragility of the system.

Diversification

9. The diversification theory is based on the idea that bigger banks (in a more concentrated banking system) can better diversify their portfolios so these banks are more stable. Economies of scale could be present in intermediation. This argument is related to the market structure and not directly to competition. (See, for example, Diamond (1984), Allen (1990) and others.)
10. However, banks in a less competitive environment could grow to be 'too big to fail'. In a concentrated banking industry banks are bigger, there are more links between them and they are more dependent on the stability of their rivals. Each bank's relative importance is much higher than would be the case in a less concentrated industry. Since systemically important or 'too big to fail' banks must be rescued by the Government in case of failure, reduced competition increases incentives for the banks to take excessive risks and hence increases banking system fragility. (See, for example, Mishkin, 1999.)

Regulator and supervisory policies

11. There is a large literature which discusses the effects of competition on certain aspects of regulatory policies. For example, deposit insurance can increase stability of the banking system by decreasing the probability of bank runs (Diamond and Dybvig, 1983) but also increases the incentives for excessive risk-taking and risk-shifting (Matutes and Vives, 1996). Minimum capital requirements increase the 'charter value' of banks and thus reduce incentives for excessive risk-taking. However, Hellmann et al (2000) show that, in a competitive market, minimum capital requirements are not sufficient to prevent excessive risk-taking, and deposit interest rate ceilings are still necessary.
12. Finally, there is a literature covering the effect of competition on the ability of regulators to supervise banks effectively. One argument is that a smaller number of banks might reduce the supervisory burden and thus increase the overall stability of the financial system (Allen and Gale, 2000).
13. Advocates of the competition-stability view disagree with the supervisory burden theory. They claim that big banks are typically more complex than smaller ones and

thus the challenge to monitor them is much larger. Since a more concentrated industry tends to have bigger banks, monitoring is more difficult and this can decrease the stability of the whole system.

Empirical evidence

14. In this section, we look at the available evidence from empirical studies that have been carried out into the existence of a trade-off between competition and financial stability. Papers that examine the relationship between competition and stability of the financial sector fall into two broad categories. The first category uses data on individual banks within a national market, whilst the second category of studies looks at differences in competition and stability across countries. The advantage of using cross-country data is that these studies can, in principle, control for the effects of different regulatory regimes.

Studies on individual bank-level data

15. The empirical evidence, based on individual bank-level data in a given country, is mixed. This is partly due to the fact that no good measures of stability and competition exist. Papers in this area use a variety of different proxies for stability including: estimates of the probability of failure of individual banks, z-score (a bank level measure of distance from insolvency), ratio of non-performing loans, or volatility of asset returns. Similarly a range of measures of the level of competition are used. The most commonly used proxies for competition are: concentration ratios, Panzar-Rosse's H statistic,² conjectural variation parameter and Lerner index. As mentioned above, there are some well-known problems with these measures and they are typically poor measures of the level of competition.
16. There is some limited evidence that banks in a less competitive environment choose lower-risk investments. Keeley (1990) finds evidence that the relaxation of state branching restrictions in the USA in the 1980s led to a decrease in banks' capital cushion and an increase in deposit interest rates due to an increase in banks' risk premiums. Jimenez, Lopez and Saurina (2007) find that in Spain from 1988 to 2003 banks with higher market power (measured by their Lerner index) had a lower non-performing loan ratio. These findings may lend some support to the view that increased competition provides banks with increased incentives for risk taking and increases banks' fragility.
17. However, contagion seems to be more likely with a concentrated banking system. De Nicolo and Kwast (2001) look at the direct and indirect interdependency of large and complex US banking organizations by looking at their stock returns. They find that the correlation of stock returns increased. They interpret this as an evidence for an increase in systemic risk in the US banking system partly due to consolidation.
18. The evidence on the effect of diversification is mixed. Calomiris (2000) surveys an extensive literature that finds an inverse relationship between bank scale and bank failure in the USA, which would support the view that consolidation in banking increases stability. However, Boyd and Graham (1998) find that large banks were more likely to fail in the USA during the period 1971 to 1986 but less likely in the period 1987 to 1994. De Nicolo (2000) finds a positive and significant relationship

²The Rosse-Panzar H-statistic is the sum of the elasticities of a firm's total revenue with respect to its factor input prices. H is negative if firms' pricing policies are consistent with the textbook model of monopoly. H is positive but less than unity under monopolistic competition, and H is unity under perfect competition. Panzar and Rosse (1987).

between bank size and the probability of failure in the USA, Japan and several European countries.

19. An extensive literature looks at the effects of mergers that create large banks and increase market concentration. Paroush (1995), Hunter and Wall (1995) and Craig and Santos (1997) find that increase in concentration increases stability by increasing banks ability to diversify. On the other hand, Chong (1991) and Hughes and Mester (1998) find that bank consolidation tends to increase the riskiness of bank portfolios.
20. In summary, the evidence from studies of individual bank data is mixed. One reason for this mixed evidence could be that a higher degree of market concentration does not necessarily imply less competition. So studies that concentrate on the effect of concentration are cannot necessarily answer questions about competition and stability. Furthermore, regulatory and supervisory frameworks interact with competitiveness in their effect on banking system stability. Studies based on individual bank-level data in a country cannot control for the different regulatory regimes across countries.

Studies on cross-country data

21. Recently, the availability of large cross-country time-series datasets induced a new literature that examines the competition-stability issue by looking at differences across different countries. These studies mostly look at the relationship between the probability of systemic failure of the banking system and some proxies of competition. One advantage of the cross-country studies over bank-level studies is that they can control for differences in the regulatory framework.
22. Beck et al (2006, a, b) find evidence that more concentrated banking systems are less likely to suffer systemic banking crises because of the ability of large banks to diversify risk more efficiently. On the other hand, they do not find evidence that it is easier for bank supervisors to monitor more a concentrated banking system or that market power increases stability. They find that the concentration is thus not a good indicator of competition.
23. Boyd, De Nicolo and Jalal (2006) use the z-score, an individual bank-level measure of distance from insolvency, and they find that banks are closer to insolvency (ie more likely to fail) in countries with a more concentrated banking system.
24. Schaeck, Cihak and Wolfe (2006) use the H-statistics as proxy for competition and find that more competitive banking systems are less prone to systemic distress. They do not find an independent link between concentration and banking fragility. Schaeck and Cihak (2007), utilizing data from European banks, find that banks have higher capital ratios in more competitive environments.
25. Finally, there is cross-country evidence that regulatory policies that restrict entry and other banks' activities have a negative effect on the stability of the banking system. Barth, Caprio and Levine (2004) and Beck et al (2006, a, b) find that a systemic crisis is more likely in countries where barriers to entry and strict regulation constrain competition while capital regulations are not significantly associated with the likelihood of suffering a crisis.
26. In summary, cross-country studies tend to support the positive relationship between *competition* and stability but yield mixed results on the relationship between *concentration* and stability.

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