REGULATORY POLICY INSTITUTE

ASSESSMENT OF THE SUITABILITY OF DIFFERENT REGULATORY APPROACHES TO ECONOMIC REGULATION THAT COULD BE APPLIED TO PAYMENT SYSTEMS

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SUMMARY

i. The objective of this report is to assist the Payment Systems Regulator (PSR) in understanding and evaluating broad options for approaches that might be taken to payment systems regulation, drawing on experiences in other regulated sectors. The focus of the report is on particular aspects of comparative practice that appear to be of most relevance when considering the trade-offs likely to confront the PSR in the pursuit of its particular objectives.

ii. The PSR has been described as a 'utility-style' regulator and as an 'economic regulator', and a first consideration is what these terms are intended to signify. We suggest that an appropriate definition of 'economic regulation' in the payments system context, is regulation that is concerned with the holistic operation and performance of economic *systems*, including markets, not with the behaviour of individual *components* of those systems (e.g. individual businesses and individual customers) *save where individual behaviour/conduct has significant market-wide effects*.

iii. This conforms with the 'utility-style' designation – sectoral regulation is concerned with communications, energy, transport and water systems, for example – and captures the traditional concerns of competition policy which, although focused on individual firms and groups of firms, restricts its attention only to cases where such firms have significant or substantial market power, such that their conduct can have significant *market-wide* effects.

iv. This definition distinguishes 'economic regulation' from regulatory interventions such as measures that might, say, be contemplated in seeking to protect consumers *irrespective of the existence of significant market power or of systemic effects more generally.*

v. A payment system is itself a *system of rules* that governs how payments are administered, payments are processed, and the criteria for membership. This definition implies that what is to be regulated is a *set of rules* (i.e. an economic institution) that applies to a *collectivity* of businesses. Whilst it is conventional to think of market power as being associated with influence on market prices, control of or undue influence on rule-books that are capable of having significant market-wide effects is also a source of market power. Such control/influence can therefore be expected to be a source of core issues for the PSR.

vi. Payment systems have a distinctive set of characteristics that mean they cannot be immediately and directly compared with systems in other regulated sectors or markets. However, their uniqueness generally derives from a particular *combination* of economic features and characteristics, a number of which are, considered *individually* or in limited combinations, more easily comparable with

features found in other sectors. In particular, the regulation of rule-books is not unique to payment systems: it occurs frequently in regulatory policy, although its relative importance varies according to context.

vii. As a newly established regulator, the PSR will face choices in a number of different dimensions when developing and implementing its regulatory approach. In Section 2 of this report, we consider a few high-level issues in relation to which the PSR will face a choice of approach and we provide selected illustrations from other economic sectors and contexts that may be relevant to these choices. Among the issues addressed are:

- *At what stage is it is appropriate to intervene to address the undesirable effects of particular types of economic actions or decisions?* In particular, we explore the trade-offs between *ex ante* and *ex post* approaches to regulation, noting that at the strategic level the choices are not, in practice, binary in nature: different *mixtures* of *ex ante* and *ex post* regulatory approaches are observed across the utility sectors.

- *In what circumstances is regulatory involvement in rule-books warranted?* Concerns about the control of a rule-book should only arise when it is itself a source of market power and the significance of the issue will depend upon the degree of market power that is possessed. A natural starting point for any analysis of regulatory involvement in rule-books is therefore the identification of the nature of any problems that might be associated with market power, and a consideration of the scope for competition among rule books or systems of rules (such as payment systems), including the potential for international competition.

- *The nature of the PSR's competition objective.* The objective potentially encompasses different forms of competition, including among payment systems themselves and competition in services that rely on payment systems. The distinction between different forms of competition can be of critical importance for policy development, but the experience of telecoms regulation again suggests that the choice is not normally 'either-or': other regulators have implemented strategies designed to foster different mixes or 'balances' of forms of competition.

- *Access issues in payment systems.* Access issues are strongly related to market power and their significance depends on the degree of competition among alternative service providers, including from potential as well as from currently existing competitors. We outline the four broad types of regulatory approach to the determination of access conditions that are most frequently observed in practice; the circumstances in which access problems have been addressed via

structural remedies (including horizontal and vertical separation); and the trade-offs between efficiency, co-ordination and competition that are involved.

- *Incentives for innovation.* Regulating for innovation has proved to be a difficult issue in the utility sectors, with various approaches and mechanisms adopted across the different systems. Particular challenges have emerged in the context of imposing obligations to share infrastructure assets (e.g. mandatory unbundling requirements in telecommunications) which have implications for incentives to invest and innovate. A related question has been whether the industry or the regulator (or a combination of the two) should be responsible for setting out a strategic vision for an industry and subsequently overseeing required investment projects. In this respect, the experience of approaches adopted for payment systems in other jurisdictions – notably Australia – are of potential relevance.

- *Interactions among different regulators ('multi-regulation')*. Since different bodies have responsibility for different aspects of the oversight of payment systems, there will be requirements for the management and co-ordination of the interactions between/among these bodies. Experience from other sectors/contexts indicates that the existence of multiple regulators can be a source of difficulties, particularly when their objectives overlap.

- *Should intervention be 'targeted' on a case-by-case basis or be 'generic' in character, irrespective of the particularities of a specific case?* The distinction is related to that between *ex ante* / *ex post* approaches to regulation and to the *per se* and *rule of reason* approaches in competition law. As for other dimensions of choice, regulators frequently opt for a blend of the two, with the balance reflecting the particularities of the relevant economic context.

viii. Section 3 of the Report sets out some potentially relevant insights from the approaches adopted to the identified trade-offs in other regulated sectors and contexts. In particular:

- In the UK energy sector, two particular institutional developments are highlighted. The first is the establishment of a 'systems operation' co-ordinating function aimed at preventing imbalances in energy systems that can have large, harmful and systemic effects. The second is the use of industry codes (which are modifiable, multiparty agreements), which set out many of the rules regarding participation in the electricity and gas markets. Of particular note in relation to the management of these codes is the *co-regulatory* structure that has developed for assessing proposed changes to the code. The arrangements have served to promote active participation in code governance, to discourage incumbents from seeking to use the rule-book to advance their

own interests and to minimise regulatory burdens by affording Ofgem a specific, limited and well-defined role in the process.

- In the water sector, the two potentially informative areas we have singled out for discussion concern the promotion of innovation and the management of multi-regulation. Since the level of innovative activity in the sector has been seen as a problem, this has been an area of active exploration for Ofwat and Defra. Among current proposals is one that provides for government, regulatory and other bodies to agree a shared research and development 'vision' for the industry and to coordinate their work. Experience in the sector has also demonstrated the potential tensions that can arise where there are multiple bodies responsible for regulation, in particular when dealing with the interactions between economic regulation and environmental regulation.

- Regulatory experience in telecommunications may be informative for payments systems in a number of respects. The industry has undergone a radical transformation in the last three decades with the separation of underlying network infrastructure from the services provided on that infrastructure, resulting in infrastructure competition emerging among a range of communication networks and the related emergence of 'two-way' access arrangements. The EU (and UK) regulatory framework for the sector has been explicitly modelled on concepts from European competition law, with 'remedies' applied only to those operators that hold significant market power. Thus, the concept of market dominance, rather than 'natural monopoly, is now the most usual basis for differentiating between alternative regulatory responses. The question of how obligations to share infrastructure might affect innovation and investment has been a significant question in telecommunications, as has the question of how asymmetry of access requirements for different network infrastructure (a legacy of the distinct regulatory histories of PSTN, cable and mobile networks) might impact on competition.

- Regulation of the broadcasting sector draws attention to other characteristics of potential relevance for payment systems regulation insofar as the two sectors share a number of characteristics, such as ensuring 'timeliness' in services (e.g.: broadcasting of live sports events and of news bulletins), and the interaction between the standard objectives of an economic regulator and other public policy objectives (e.g.: in relation to plurality in the media). The sector also provides leading examples of some the potential problems that can arise at the boundary between competition law enforcement and use of sectoral regulatory powers, even when each has similar objectives and is seeking to address similar issues.

- The rail sector provides a relatively extreme example of the difficulties of multiple regulators in circumstances where the different public bodies involved have different and conflicting objectives.

- Air traffic control has analogies to aspects of the operation of payment systems in that it provides co-ordination services within UK airspace to airlines (the service users) in co-operation with air traffic control operators in other jurisdictions. However, air traffic control is much more utility-like than payment systems in the degree of monopoly to be found in the provision of the service. Nevertheless, the historical ownership arrangements for NATS – which at one point involved ownership by a consortium of airlines, NATS' staff and the government – and the European Commission's competition assessment of this structure might potentially provide some guidance to the PSR on similar types of issues.

- Two aspects of the regulatory position in relation to airports are of potential relevance to the PSR. First, the approach has involved one of adjusting the degree of regulatory oversight to the level of market power of the relevant airport (airports not typically being natural monopolies). Second, airports are characterized by both network effects and cross-network effects, and this has required the regulator to analyze the effect of inter-platform/system/market competition on price structures.

- The experience of the impacts of the new regulatory framework for legal services is potentially instructive for a number of reasons: (a) it involved the creation of a new statutory regulator in a context where, historically, self-regulation had been the preferred option; (b) a major task of the statutory regulator involves the supervision and oversight of 'rule-books' of professional regulators; and (c) unlike the utilities, there are no natural monopoly issues in the sector and the focus of regulation is not specifically on prices.

- Various reforms to the regulation of the payments system in Australia have been introduced since the 1990s, including the establishment of a Payments Systems Board (PSB) of the Reserve Bank which, among other things, can designate a payment system, determine an access regime and arbitrate in disputes. The Australian experience of issues such as collective innovation, changes to payment card schemes and the interaction of multiple regulators are a potential source of insights for the PSR.

- In the EU there have been two recent developments in the approach to payments systems regulation: a proposal for the regulation of interchange fees for card-based payment transactions and a proposed new payment services directive (the PSD2). It is likely that the PSR will become fully operational before there is any new European legislation and the PSR will need to have

regard to the development of the European Commission's proposals to ensure compatibility and avoid conflicts.

- Finally, we note that issues of network sharing, access to the infrastructure of dominant players, and the transition from monopolies to competitive markets have all been the subject of competition law interventions. These have included abuse of dominance investigations and sectoral or market inquiries.

ix. Drawing on the analysis and discussions in Sections 2 and 3, the final section of the Report reflects on a number of the implications of regulatory experience in other sectors and jurisdictions for the PSR. The first of these is simply that, although there are important differences in context, several of the major issues confronting the PSR in developing its regulatory approach have analogues in other regulatory experiences.

x. The comparisons made suggest that the broad regulatory approaches adopted in practice tend to contain mixes of alternative options along in each of the various dimensions of choice identified: regulators seek to find 'balances' among the available options that appear to them to be most appropriate in the particular circumstances that they face. In relation to payment systems, our general sense is that, given the PSR's primary objectives and its concurrent competition law powers, the natural starting point is toward the *ex post, standards-based* approaches to which regulation in other sectors has tended to move as competition has developed. This suggests an initial focus on assessment of the *scope* of that type of market power which is associated with the undue influence of one or more parties on relevant rule-books, and of the *effects* of such market power. *Ex ante* considerations may later come into play when considering how to address any significant problems that are identified.

xi. The existence of substantial market power can be expected to have negative implications for innovation and the innovation problem is therefore common to more or less all economic regulators. Promotion of competition where feasible is the first policy of choice, but other regulators have struggled with the innovation issue in those activities for which the development of competition has not proved feasible (e.g.s.: pipes, wires and rails) and have had only very limited success. Where competition is not feasible there are no very compelling ways forward to be found in regulatory practice in other contexts.

xii. Economic institutions (of which payment systems are one variety) need to adapt as circumstances change and regulatory histories are stories of such adaptations or of failures to adapt. Contrary to some suppositions, static, unchanging rule-books in the face of changing circumstances (e.g. technological change) tend to *reduce* regulatory certainty. The critical factor for regulatory certainty is a stable and effective *rule-change or rule-modification process.*

xiii. Proportionality is one of the governing principles of the 'better regulation agenda', but it is much easier to articulate as a principle than it is to put into practice. Regulatory histories exhibit a persistent tendency for public regulation to expand its degree of influence (regulatory creep), which is in itself a form of monopolisation (of control of rule-books). Occasional, more holistic assessments offer a possible counter-weight to such tendencies (an example being Significant Code Reviews in the energy sector) and the PSR will be able to call upon both its own market studies and market investigations conducted by the CMA for this purpose. It is crucial, however, that the use of such options encompasses study or investigation of *the effects of regulation* as well as the effects of other market features that may be perceived as potentially problematic.

xiv. Finally, it is obviously desirable that the PSR's approach and strategy are consistent with other regulatory frameworks that apply to the sector in ways that are coherent and effective when considered as a whole. Maintaining coherence and consistency is particularly challenging in the face of multiple objectives and multiple regulators (as illustrated by regulatory failures in sectors such as rail and energy). Competition law provides a unifying framework that helps here, and promotion of competition facilitates the achievement of other objectives (e.g. innovation and protecting the interests of service users). However, there can be tensions between the use of competition law and sector specific powers and use of the latter can easily become anti-competitive if not governed by the same considerations as apply in general competition law.

1. INTRODUCTION

1.1 The assessment in brief

1. The objective of this assessment is to assist the Payment Systems Regulator (PSR) in understanding and evaluating:

   a) its broad options for approaches that might be taken to payment systems regulation, drawing on experiences in other regulated sectors that may be of potential relevance in the payment systems context, and
   b) how insights from these experiences could potentially inform the PSR in the effective pursuit of its objectives.

2. The main focus is therefore on approaches and experiences that are or have been used in other sectors and jurisdictions, but the approach is a selective one. Rather than attempting anything approximating a comprehensive analysis of the practice of economic regulation in these other contexts, attention is restricted to those particular aspects of comparative practice that appear to be of most relevance, by virtue of their nature and effectiveness, to the trade-offs likely to confront the PSR when addressing the particular economic characteristics of payment systems in pursuit of its own, particular objectives.

3. The assessment exercise requires that attention be paid to the characteristics of payments systems and to the objectives of the PSR, but here again the approach is high-level in nature, based on identification of broad characteristics rather than on the fine detail of current and potential arrangements.

4. The assessment should therefore be interpreted as a contribution to a much wider regulatory discourse on the regulation of payment systems, not as a comprehensive analysis of either the comparative regulatory experiences that are its main focus or of the workings of payments systems. Put another way, it is intended to provide an initial skeleton of some important, potentially relevant issues in the conduct of regulation of payment systems, to which much can be expected to be added in the course of subsequent regulatory analysis and discourse. More specifically, we were not asked to provide advice to the PSR on how the PSR should resolve the various trade-offs and issues that we have identified.

5. A PSR stakeholder workshop, organised and run by the Regulatory Policy Institute (RPI) was held in connection with the assessment on Wednesday 28 May. A summary of the discussion at that workshop is appended as an Annex to this Report, and points raised have been taken into account in the Report itself.

1.2 What is economic regulation?

6. The PSR has been described as a 'utility-style' regulator and as an 'economic regulator', most notably by HM Treasury[1]:

   "The Government is now proposing to proceed with bringing payment systems under economic regulation, and establish a new competition-focused, utility-style regulator for retail payment systems."

   "While the new regulatory regime for payments will be established under the FCA, the Payment Systems Regulator will adopt a utility-style approach, distinctive from the FCA's existing remit (which spans consumer protection, the integrity of the UK financial system, and the promotion of effective competition in the interests of consumers in the markets). The Payment Systems Regulator will have a distinctive role to that of the FCA and will require a different set of skills in order to fulfil that role."

   It is therefore important at the outset to consider what these terms are intended to signify, not least because, like many other agencies, the PSR will have to work alongside other regulators and experience teaches that there are ever-present risks of and tendencies toward 'mission creep'. Whilst broader issues of regulatory design – how the domains of particular government agencies are defined, and how the different responsibilities, powers and duties cohere (or don't cohere) – are not part of the remit for this Report, it is nevertheless useful to set out more precisely what is meant by economic regulation within the scope of this assessment.

7. Unfortunately, notwithstanding frequent uses of the term, there is no settled definition of 'economic regulation'. At its broadest, it could refer to any aspect of public policy that has economic effects. At the other end of the spectrum, in the US the term is used chiefly to refer to both direct legislation and administrative regulation of prices and entry into specific industries.[2] The first of these is hopelessly wide and, whilst the second certainly captures much of the core work of sectoral regulators (in communications, energy and transport, for example), it by no means encompasses <u>all</u> of their work. More importantly, the 'prices and entry' approach does not appear to closely match the duties/objectives – promoting competition, innovation and the interests of service users – and powers afforded to the PSR in that these duties and powers go rather wider than just issues of price control and entry conditions. Indeed, the price controls of traditional 'utility-style' regulation may not turn out to be a major strand of PSR work in practice, for reasons that will be discussed later in this Report.

8. We suggest that an appropriate definition of 'economic regulation' in the payments system context, which reflects HM Treasury's references to a 'utility-style'

[1] See HM Treasury, 2013. "Opening up UK payments". March 2013. Page 5; and HM Treasury, 2013. "Opening up UK payments: Response to consultation' October 2013. Page 6

[2] See Joskow, P.L.and N.L. Rose, 1989. "The Effects of Economic Regulation" in R. Schmalensee and R Willig (eds.) 1989. *Handbook of Industrial Organization: volume 2*. Amsterdam: North-Holland Press.

approach and to a competition-focus, is that it is regulation that is concerned with the holistic operation and performance of economic *systems*, not with the behaviour of individual *components* of those systems (e.g. individual businesses and individual customers) *save where individual behaviour/conduct has significant market-wide effects*.

9. On this basis, the 'utility-style' criterion is met in that utility regulation is characterised by concerns with (a) the operation and performance of economic systems – communications systems, energy systems, transport systems, water services systems, etc. – and (b) competition and market power issues, since in the presence of significant market power a single decision can have major, market-wide effects[3]. Utility regulation therefore encompasses the traditional concerns of competition policy: the prevention or mitigation of harmful effects of significant market power, including by promoting competition.

10. Price controls and measures that affect entry conditions are obviously covered in this definition – the first being aimed at mitigating potentially harmful effects of market power, the second at creating[4] or reducing market power – but it also covers other interventions that are contemplated in the relevant legislation. Thus, for example, it also encompasses regulatory measures directed at preventing or mitigating harmful effects of control of rule-books by a particular interest group (a form of collective market power that will emerge as a central theme in what follows), effects that include the chilling impact of more extreme forms of market power on innovation.

11. We note that the definition distinguishes economic regulation from large parts of what is often referred to as 'conduct regulation' in the UK financial services sector, by which is usually meant interventions directed at the market conduct or business models of *individual* service providers that *do not have market-wide effects* (i.e. at conduct that does not, in the normal sense, involve the exercise of significant market power). This is consistent with HM Treasury's emphasis on the different roles of and skill sets required by the PSR and FCA respectively, although there are clearly also overlaps, most notably in relation to duties to promote competition.

12. The definition also clearly distinguishes the PSR's approach from that of the Bank of England (BoE) in relation to 'financial stability', although again there is some overlap. Whilst the BoE, like the PSR, is concerned with *systemic* issues, its focus is much narrower, on systemic *stability*, not on broader/holistic aspects of the operation and performance of payment systems which were identified in the

[3] This is a generalisation of the more familiar definition of market power in terms of an ability to influence market prices, made in order to capture the reality that the interests of service users and end consumers are affected by dimensions of performance other than price.

[4] Regulatory measures that seek to increase barriers to entry into markets are a remarkably common phenomenon: various kinds of restrictions on international trade provide an immediately comprehensible sub-set of examples.

various HM Treasury documents and OFT studies prior to the establishment of the PSR.[5]

1.3 The context: systems and relevant public policy objectives

13. The OFT has defined a payment system as *"the system of rules, as determined collectively by member organisations, that govern how a particular system of payments is administered, how payments are processed, and the criteria that potential members need to meet to become members."* [6] These rules are typically also associated with a *payments infrastructure* comprising a network of interconnections among members of the payment system that provide for transactional information to be processed, for communication among the members, and for a settlement or clearing system.

14. The most economically significant implication of this definition is that what is to be regulated is a *set of rules* which applies to a *collectivity* of businesses or economic agents. That is, what is to be regulated is an economic *institution*[7], not a single business (as is the case, for example, when dealing with a traditional natural monopoly). The market power to be prevented or mitigated is therefore often of a *collective* nature, although it can be noted that a payment system can also be owned and controlled by a single enterprise, as for example in proprietary (three-party) card systems.

15. Regulation of rule-books (institutions) is, in fact, the norm rather than the exception in the conduct of economic policy,[8] although this is a much neglected fact in regulatory economics, which tends to proceed rather quickly to final effects (e.g. on prices and quantities traded in markets) without pausing very long to examine the institutional structures that serve *"to bind the economy together."* One of the advantages of looking to see how relevant issues have been addressed in other sectors and jurisdictions is that it helps bring important institutional issues back to centre stage.[9]

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[5] See HM Treasury, 2013. "Opening up UK payments" March 2013; HM Treasury, 2013. "Opening up UK payments: Response to consultation' October 2013; OFT, 2013. "UK Payments Systems: how the regulation of UK payment systems could enhance competition and innovation" OFT 498, July 2013. Earlier references include: OFT, 2003. "UK payment systems: An OFT market study of clearing systems and review of plastic card networks" May 2003; and Cruickshank D, 2000. *Competition in UK Banking: A Report to the Chancellor of the Exchequer*.

[6] OFT, 2013. "UK Payments Systems: how the regulation of UK payment systems could enhance competition and innovation". OFT 498, July 2013. Page 21.

[7] More generally on this point, see D North (1981) *Structure and Change in Economic History* (W.W Norton and Company) especially chapter 15; and D North (1990) *Institutions, Institutional Change and Economic Performance* (Cambridge University Press).

[8] See, generally R. Coase (1988) *The Firm, the Market and the Law* (University of Chicago Press).

[9] The importance of defining precisely what it is that is being regulated was signalled by the very first point raised at the stakeholder meeting, which was focused on this issue.

16. If the existence of economic/market power associated with control of, or undue influence on, rule-books is the core issue for the PSR, two points can be made immediately:

- The evidence does not conclusively suggest that payment systems are natural monopolies, which is the starting point for the most familiar examples of 'utility-style' regulation. What is observed in practice is the existence of more than one variety of payment system and, to the extent that large systems with wide scope have particular advantages, those advantages do not appear to be sufficiently large to *eliminate* all competition. 'Natural oligopoly' may, therefore, be a better characterisation of the market structure, and it is the concept of dominance, rather than the concept of natural monopoly, that is likely to be most relevant to the PSR.

- Both inter-system competition and competition among users of payment systems may potentially be vulnerable to control or illegitimate influence, which is capable of being exerted across a number of potentially competing rule-books by businesses that participate in a number of different systems.

These issues are considered in further detail in the main sections of the Report below.

1.4 Broad similarities to, and differences from, other regulated sectors

17. It is trite to say that each market, sector and economic institution has distinctive characteristics that make it unique in some way or another, and payment systems are no exception. Indeed, were it not for such characteristics there would be no call for a distinct payment systems regulator.

18. The inferences often drawn from this statement of the obvious can be misguided, however. Uniqueness generally derives from a particular *combination* of features or characteristics of the relevant set of economic activities and many of these features/characteristics, when considered individually or in smaller combinations, may exhibit significant similarities with other markets/sectors/institutions.

19. This general point can be illustrated by comparing a payments system with a market. Markets themselves comprise sets of rules – i.e. they are economic institutions/systems – made up of sub-sets of statute law, regulations, conventions, social norms, shared rules-of-thumb and common understandings (e.g. the common understanding that if we turn up at a particular location in a particular period of time we can expect to find shops or market stalls open for retail business). The market/system comparison immediately draws attention to the fact that alongside the formal rules that govern economic conduct there will also be an informal institutional structure – which for current purposes can be referred to as the *market culture* – that may also have important implications for economic performance.

20. The comparison also highlights the fact that the institutional structure can take a variety of different forms. For example, a market can be proprietary (examples include Ebay, Amazon marketplace, and privately owned commodity exchanges), public (the high street), or jointly owned, controlled or operated by a sub-set of participants.

21. More interestingly, a market is a social institution whose chief purpose or function is to reduce transaction costs and thereby facilitate trade/exchange, which is also the chief function of a payments system. Given that the history of privatisation and regulation in utility sectors is characterised by the establishment of new markets where none had previously existed (i.e. to the creation of new economic institutions), it can be seen again why there is potentially much to be learned from study of approaches to regulation in these contexts. In each of the utility settings a public regulatory agency has played a major role in *institutional development*. Whilst the PSR is not starting from scratch in the way that a number of other regulators had to do – the relevant institutions already exist and operate – it is nevertheless expected to play a role in the future evolution and development of payment systems.

22. In effect, then, this Report is an exploratory exercise in institutional economics. In what follows we will first set out some of the alternative approaches that are open when considering particular aspects of institutional development, before going on to consider how regulators in other sectors and jurisdictions have combined these available alternatives in the particular combination of economic factors/circumstances that each has faced and, finally, setting out some views about possible implications of these experiences for the development of payment systems regulation in the UK.

2. KEY CONSIDERATIONS IN DEVELOPING A REGULATORY APPROACH

23. As a newly established regulator, the PSR will face choices across a number of dimensions in developing and implementing its regulatory approach. In this section we consider some of these dimensions. The list of issues discussed is not exhaustive, but is focused on identifying a few key questions of regulatory design that have confronted economic regulators in other sectors and activities and that may be of relevance in the payment systems context. In brief, these questions concern: *ex ante* vs. *ex post* approaches to regulation; governance arrangements; forms of competition; access/entry arrangements; structural integration or separation; innovation and investment; regulatory remits and objectives; and what we will refer to as 'targeted' versus 'generic' regulation.

2.1 *Ex ante* and *ex post* approaches: rules vs. standards

24. An initial, strategic question relevant for determining a regulatory approach is: at what stage is it appropriate to intervene to address the undesirable effects of particular types of economic actions or decisions? Broadly speaking, there are two possibilities: a regulator might intervene before the relevant ('harmful') actions/decisions occur (i.e. by proscribing or prescribing particular behaviour, or by setting *formal* rules as to who can engage in particular activities) or might intervene after particular conduct has occurred and undesirable (harmful) effects have eventuated. This is usually characterised as choice between *ex ante* and *ex post* approaches to regulation.[10]

25. It can be noted immediately – and this is a point that runs throughout this Report – that, at the strategic level – the choice here is not binary in nature. *Ex ante* regulation may be favoured for some issues and *ex post* regulation may be favoured for other issues. The overall regulatory approach will then be characterised by the particular balance that is selected, e.g. on whether it is more or less weighted toward *ex ante* interventions.

26. The relative merits of *ex ante* and *ex post* approaches depend on the particularities of context and on the specific nature of the regulatory issue to be addressed. Generally speaking, however, an *ex ante* approach – such as the imposition of price controls or of minimum service quality standards – involves the regulator *anticipating* that adverse effects will flow from particular types of behaviour (e.g. unreasonably high prices, sub-standard quality of service), and seeking to restrict the ability of businesses or consumers to engage in such behaviour before it occurs.

[10] On more general questions relating to the timing of interventions see Kaplow L., 1992. 'Rules versus Standards: An Economic Analysis' 42 *Duke Law Journal* 557; Diver C.S., 1983 'The Optimal Precision of Administrative Rules' 93 *Yale Law Journal* 65; Kaplow, L., 2000. 'General Characteristics of Rules' in Boudewijn Bouckaert and Gerrit De Geest (eds), *Encyclopaedia of Law and Economics* (Edward Elgar, 2000) vol 5, 502; Shavell, S., 1993. 'The Optimal Structure of Law Enforcement' 36 *Journal of Law and Economics* 255.

27. There are obvious merits in seeking to prevent harmful effects occurring by means of proscription or prescription, as is manifest from simple consideration of the commandment "Thou shalt not kill". Among other things, this approach also provides potentially clear guidance as to acceptable behaviour, which in regulatory contexts is usually referred to as *regulatory certainty*.

28. There are, however, a number of factors that serve to complicate the matter, including:

    - The effects of behaviours or decisions often depend upon the detail of the context in which they occur. For example, generic prohibitions can be expected, in some circumstances, to prevent behaviours or decisions that are actually beneficial rather than harmful.

    - Whilst an *ex ante* approach can be 'fine-tuned' in ways that link the relevant rule to particular types of circumstances (or contingencies) – e.g. 'Thou shalt not kill' might be set aside in circumstances of warfare or self-defence – this can lead to rapidly expanding rule-books in situations where the possible contingencies are many in number, as they often are in regulatory contexts.

    - Enforcement of, and compliance with, expansive rule-books brings direct and immediate costs, particularly when the effects of a prescription or proscription are not straightforward to assess across the range of contingencies/circumstances that might arise.

    - The benefits of regulatory certainty can be lost in economic contexts that are subject to significant change over time, if formal rule-books become 'out-of-sync' with underlying commercial realities and rules are regularly changed in unpredictable ways: unstable rules lose their economic function. (This point draws attention to the importance of the *rule-change process*, which will be discussed in some detail later in the Report.)

    - Assessment is often complicated by the tendency of detailed *ex ante* regulation to affect the 'market culture' (the informal aspects of the institutional set-up). Enforcement and compliance can become 'rules-based' in ways that detract from achievement of the overall purposes of regulation, a phenomenon that is well recognised in the negative connotations of ordinary language terms such as 'box ticking', 'jobsworth' and, in the labour market context, 'working to rule'.

29. Taking account of these complicating factors, the sorts of contexts in which *ex ante* regulation tends to work better include:

    - When dealing with a narrowly defined issue, so that the problem of different effects (of behaviour or decisions) in different contingencies is greatly reduced.

    - The effects of the relevant behaviours/decisions are similar across the great bulk of contingencies.

    - The choices at which the *ex ante* rules are directed are themselves simple in form, so that boundaries between what is acceptable and what is not acceptable are easily drawn and monitored.

    - The relevant harms that might occur are potentially very substantial and irreversible (e.g. a nuclear accident).

    - The *ex ante,* formal rules are such as to command strong legitimacy and are consequently less liable to cause unintended changes in the informal parts of the institutional structure (e.g. are less likely to increase the acceptability of non-compliance).

30. In contrast to the above, *ex post* approaches to regulation are backward-looking and tend to be associated with the specification of rather general standards of conduct that lie closer to the relevant policy objectives. Broadly speaking, the unifying standard is 'do no harm', where the relevant harms are derived from the delegated objectives of the regulator, for example don't harm the competitive process (a form of institutional harm), or don't harm consumers.

31. Interventions tend to occur only when (a) there is evidence of actual harm having occurred or (b) circumstances are assessed as such as to give rise to a high probability that significant harm will eventuate (e.g. as a result of predatory pricing in a competition law context). However, the *ex post* approach is capable of having *ex ante* constraining effects on market conduct by virtue of the incentive effects of the *threat* of regulatory intervention. The key point of difference in the *ex post* approach is that there is no attempt to specify, in advance, all the various behaviours and contingencies that might lead to unacceptable levels of harm.

32. An advantage of the *ex post* approach is that the quality of information about the effects of market conduct is generally significantly better after that conduct has occurred, which should, in principle, result in more appropriate and proportionate regulatory interventions. However, the flexibility and regulatory discretion (as to whether or not to intervene) that this implies can create uncertainty on the part of entities subject to regulation as to how particular standards will be applied in

practice. Any such uncertainty can chill the incentives to do things that would, on the basis of information available at the time, be judged beneficial for policy objectives, for fear that they may later be judged to have been harmful on the basis of later information.

33. The chief worry here is typically about the potentially chilling effects of regulatory uncertainty on investment and innovation, because such decisions can involve large and irreversible commitments of resources, and this is one aspect of a more general limitation of *ex post* methods in contexts involving large, irreversible damages/harms. This limitation can be exacerbated by the length of time taken by administrative procedures, which in some cases can extend over periods of many years.

34. This uncertainty about how a regulator will exercise discretion can be tempered by the establishment of guidelines setting out when and how a regulator might intervene, and by rules of procedure that may help speed up administrative processes. However, guidelines are guidelines – not firm commitments – and rules of procedure tend to provide for longer periods to be taken when deemed necessary.

35. In the end, the effective functioning of *ex post* approaches, which potentially brings lower enforcement and compliance costs and, more crucially, greater flexibility and adaptability, depends upon establishing a reasonable level of trust between regulators and regulatees, since it affords each set of parties higher levels of discretion. Reputation (on both sides) matters a great deal and everyday wisdom about reputation is not far off the mark: hard to achieve, easy to lose. This again draws attention to the significance of the informal aspects of the institutional architecture of markets, of which reputation and trust are aspects.

36. Different mixtures of *ex ante* and *ex post* approaches in regulatory strategies can be observed across the utility sectors. For most network infrastructure activities – such as energy, water and wastewater and transport networks – it is generally the case that *ex ante* regulation, in the form of up-front price controls, generic access conditions and other service quality requirements are imposed on the network operators. For other utility activities – notably retail activities in energy and telecommunications, and some network activities in telecommunications and postal services – there has been a general shift away from *ex ante* approaches (involving principally the use of price controls) to a greater reliance on an *ex post* approach. This transition has largely followed the emergence of competition in these activities, which exerts its own restraints on the ability of entities to exercise market power (by reducing that power), as well as a recognition by some regulators

that the imposition of *ex ante* controls in circumstances of emerging competition can be counterproductive.[11]

37. It follows from this brief discussion that a principal task of the PSR will be to determine an appropriate balance between *ex ante* and *ex post* approaches to regulation, or rules and standards. Relevant considerations in this regard include: the information available to the PSR; the frequency with which potential adverse conduct might be expected to occur; the expected magnitude of the harm associated with such conduct; and the extent to which competition or other alternatives to *ex ante* regulation might act to constrain and influence the conduct of regulated entities.

38. In considering these trade-offs it is also critically important to bear in mind the consequences of initial choices for the subsequent development of the regulatory culture itself. One of the most significant, though relatively unappreciated, insights of a large literature on the subject is that regulatory approaches are very heavily influenced by *what it is that is being regulated*. Prescriptive *ex ante* regulation focused on compliance with rules will lead to a different set of future tasks and tend to lead to a different regulatory culture than *ex post* approaches focused more on general standards linked to the *effects* of economic behaviour (usually formulated in terms of significant harm).

39. There are useful analogies here with the administration of private contracts, including franchise contracts, which provide some guidance in thinking about regulatory approaches.[12] A heavy reliance on prescriptive rule-making is akin to attempting to write a relatively *complete, contingent* contract whereas *ex post* approaches are more akin to reliance on an *incomplete* contract, and each approach has different consequences for subsequent regulatory conduct since the focus of administrative effort (the implicit regulatory contract) will be different in the two settings. *"Many of the problems associated with regulation lie in what is being regulated, not in the act of regulation itself".*[13]

[11] In particular, it is argued that conventional price cap regulation may make new entry more difficult, and deter competition, and that removing price controls can facilitate competition. See, Yarrow, G;. C Decker and T Keyworth, 2008. "Report on the impact of maintaining price regulation." Report to the Australian Energy Market Commission. January 2008; Littlechild, S.C., 2008. "Regulation, Over-Regulation and Deregulation." CRI Occasional Lecture 22 November 2008. For a recent consideration of this point by a regulator, see Ofcom (2012) "Securing the Universal Postal Service: Decision on the new regulatory framework." Statement. 27 March 2012.

[12] For a brief discussion, see Vickers, J. and Yarrow G.K, *Privatization: An Economic Analysis*, sub-section 4.6.1 (the maths can safely be omitted), MIT Press, 1988.

[13] Goldberg, V.P., 1976. "Regulation and Administered Contracts, *Bell Journal of Economics*.

2.2 Governance: control of the rule-books

40. A longstanding area of concern in relation to payments systems concerns issues of their governance.[14] In particular, it has been argued that the current structure of payment systems might be used by existing members to deter competition and/or that it might not be conducive to innovation and investment. The central point here is that payment scheme owners who are also major users of the scheme can (collectively) control the 'rule book' that determines the operation and membership of the scheme.

41. There are both short-term (access and pricing) and long-term (innovation and investment) aspects to the governance issue. In the short-term, a principal concern is that existing members of a payment scheme – which provides a wholesale service to market participants – may operate the scheme in such a way as to confer a competitive advantage on themselves at the retail level, to the detriment of those who are not full scheme members, and that this will, ultimately, have adverse impacts on end-consumers. Although we have not been asked to consider or review any evidence related to this point, we note more generally that this could potentially happen in several ways, including by: limiting direct membership of a payment scheme; allowing access but setting unduly excessive access charges (that are significantly above cost) and/or that discriminate against certain types of user; applying unnecessarily restrictive terms of access to direct and indirect users; and providing a different quality of service, or offering a more limited scope of services, to indirect members of a scheme.

42. Over the long-term, a principal concern is that existing governance arrangements could have adverse effects on innovation and investment. For example, innovations that would have net beneficial effects for consumers and some system-users, after allowance for investment costs, might be hindered in circumstances where incumbents controlling the rule-books perceive that, for them, the benefits would be less than the costs.

43. Crucially, this type of issue only arises where control of a rule-book is itself a source of market power and the significance of the issue will therefore depend upon the degree of market power that is possessed. There is clearly potential scope for competition among rule-books (i.e. among different institutional arrangements aimed at providing similar services). A much cited contemporary example is the competition that on-line retailing is currently bringing to 'the high street'. The starting point for any analysis of regulatory involvement in rule-books is, therefore, assessment of the scope for competition among rule books or systems of rules (such as payment systems), and this was a point made by one of the participants in the stakeholder event who emphasised the importance of not neglecting the potential for international competition in the provision of payment services.

[14] See Cruickshank D, 2000. *Competition in UK Banking: A Report to the Chancellor of the Exchequer*.

44. Experience of regulation in other sectors confirms the general point. In energy, the network codes are rule-books governing use of monopolistic systems of pipes and wires and acquire their monopolistic aspects from the underlying monopolies of (physical) systems of pipes and wires. Similarly, balancing and settlement codes tend to be monopolistic because they govern a distinct market (there is only one substantive, wholesale market in electricity in Great Britain[15]). In contrast, the interest of public authorities in the rule-books of commodity exchanges, including electricity and gas exchanges, is much less intense because these are institutions that are much more open to competition: for example from off-exchange trading and/or from other domestic and international exchanges.

45. In circumstances where control of a rule-book confers market power – the ability to make decisions that have market-wide effects – a frequently occurring issue is the determination of the appropriate balance between self-regulation and public/statutory regulation, i.e. the question of *who* is responsible for the development and enforcement of a relevant 'rule-book'. Most frequently, though not necessarily and certainly not always, self-regulation has historically meant control of the rules by suppliers (rather than consumers) of goods or services, for example because they are usually smaller in number and have faced lower transactions costs in making the collective decisions that are required for rule-making.

46. One sub-set of such arrangements (which has included payment systems) is characterised by suppliers coming together to establish arrangements to provide inputs for their principal outputs. An historic example is the development of (self-regulated) 'electricity pools' by electric utilities, which enabled utilities to exchange bulk power so as to reduce the costs, at the margin, of supplying their own retail customers. Another is the development of (self-regulated) mutual insurance arrangements in the shipping industry, to reduce financial costs.

47. A similar type of example is when suppliers come together to control the quality of service that is provided. Here the argument for self-regulation is that, by ensuring that quality of service is maintained, consumer trust and confidence can be established and that this expands the size of the market, to the benefit of all parties. The notion of quality of service here can encompass factors such as the financial integrity of suppliers, since financial failures may affect the service received by consumers in obvious, harmful ways.

48. However, problems can arise when the reach of self-regulation extends beyond the minimum necessary to achieve its market-expanding purposes. In particular, a self-regulatory body has incentives to expand demand only up to the point where the collective, private interest of its members is best satisfied. If the rules confer

[15] Although it may periodically become segmented by virtue of transmission constraints.

market power, this will typically fall short of the point at which the total gains from trade are maximised. The issue is not that self-regulation is inherently a bad thing: it is that there can be incentives to 'tweak' the rules in favour of those who control the rules.

49. This is, in effect, a form (perhaps the most obvious form) of 'regulatory capture'. Since public regulation is far from immune to regulatory capture, the point does not establish a clear-cut case against self-regulation

2.3 Forms of competition

50. A primary objective of the PSR is to promote effective competition in the market for payment systems and in the market for services provided by payment systems, in the interests of those who use those services. An immediate question this raises is: what does competition mean in this context? Does it, for example, mean: 'inter-system' competition among a number of different payment systems (i.e.: what in a utility context would be called infrastructure competition), or does it refer to competition in the services provided by different users of a common payment system infrastructure (i.e.: services competition), or is it intended to reflect something in-between (i.e.: 'quasi-infrastructure' competition[16])?

51. Regulation, and public policy more generally, plays an important role in determining the characteristics and properties of competitive processes: it influences the 'rules of the game' – the rule-set governing a competitive process – which in turn, indirectly, affect market conduct and outcomes, just as the rules of football or cricket determine what 'competition' looks like in those games. As implied by the preceding paragraph, there are trade-offs to be assessed and choices to be made. The notion of 'promoting competition' is not, therefore, a simple one.[17]

52. By way of example, consider a situation in which the question is whether or not to mandate access to particular facilities that provide 'essential' inputs for suppliers in one or more related markets. Mandation may make it easier for the suppliers to compete in related markets, and might be said to 'promote competition' in those markets. At the same time, the policy could discourage suppliers from investing in and developing alternative facilities and might, therefore, be said to 'hinder competition' in the facilities market. There is therefore a trade-off, which can only be resolved by assessment of the factual context, based around a balancing of the perceived effects of promoting/hindering competition in the two types of activities (facilities and markets served by users of those facilities).

[16] This refers to a situation where an entrant makes some investments in infrastructure assets, but also acquires some essential inputs from the access provider. See discussion below.

[17] Views to the contrary are usually indicative of explicit or implicit reliance on an over-simplified model.

53. The various restructuring policies that have been introduced and pursued across the different utility industries in the UK (and elsewhere) over the past three decades show a variety of responses to this issue, which tend to reflect the underlying technical and economic characteristics of the relevant industry (i.e. the particular factual context).[18] Different approaches have also been adopted in different parts of the same industry: in energy, for example, there has been strong promotion of facilities-based competition in electricity generation and gas storage, but not in transmission and distribution networks.

54. The experience of the regulation of the telecommunications industry is perhaps the most instructive for the payments services context for a number of reasons, including:

    a. Both the telecommunications industry and the payment services sector exhibit strong network effects, which historically has been influential in underpinning the view in some jurisdictions that the scope for inter-network/system competition may be limited (a view that has been subject to strong challenge).[19]

    b. Different types of network infrastructure (the PSTN, cable, mobile networks) are characterised by different regulatory histories. A legacy of this point is that, in many jurisdictions, these different types of infrastructure are subject to different regulatory arrangements, notwithstanding the fact that they may now be supplying the same, or closely substitutable, services to one another.

55. Despite the historical view that the prospects for 'inter-network' competition in telecommunications were limited, in part due to network effects, rapid technological change led to some fundamental rethinking (indicating that policy has been responsive to changing trade-offs, albeit at a pace that is far outstripped by technological change itself). The policy approach shifted to a recognition that competition can, in principle, add significant economic value in more or less all activities in the supply chain,[20] and various 'forms' of competition can now be observed, including in the local access market (the local loop), once regarded as a core natural monopoly. The types of competition now observed include:

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[18] For example, in the electricity and gas industries, efforts to promote competition have focused on the 'upstream' (generation or extraction) or 'retail' activities, and there has not been a significant focus on the development of competition for the transmission and distribution activities. In water and wastewater, the traditional focus has been on fostering a form of 'yardstick' or comparative competition between different vertically integrated companies operating in separate geographic regions.

[19] See for example, OFT, 2003. "UK payment systems: An OFT market study of clearing systems and review of plastic card networks". May 2003. page 3.

[20] As Cave, Majumdar and Vogelsang (2002) observe: "*The earlier view of telecommunication as a natural monopoly has now given way to one in which almost all parts of it are seen as susceptible to some form of competition".* See Cave, M.E., S.K. Majumdar and I. Vogelsang (eds.), 2002. *Handbook of Telecommunications Economics: Volume 1*. North Holland: Elsevier, page 38.

i. full facilities-based, (or infrastructure) competition where an entrant invests in network infrastructure to compete head-to-head with the incumbent in providing an end-to-end service;

ii. so-called 'quasi-facilities' based competition where an entrant invests in some infrastructure facilities, but also acquires 'unbundled' access to other services/facilities of the incumbent, most notably the local copper wire network;

iii. wholesale access and resale (service competition) where entrants acquire a standard wholesale access product from the incumbent which it then sold in a retail market, differentiating themselves in terms of customer service, pricing, branding etc.

2.4 Access/entry

56. A longstanding issue in relation to payment services involves questions of the terms on which access is provided to current and prospective users of the systems, and the impacts that this may be having on the development of competition in markets in which users compete. Specifically, the argument here is that, because major payment systems are controlled by large banks which are also the largest users of those systems, these banks have both the capacity and incentive to use the terms on which they provide access to other payment system users to inhibit the development of competition in related markets. This might be manifested in the erection of significant barriers to entrant firms becoming direct members of a payment system, or by failing to provide indirect access to system users on fair and equivalent terms.

57. The significance of this issue depends, as indicated, on the degree of competition among alternative payment system providers – which depends on the potential for new entry to this activity, as well as on existing providers (since entry barriers are a determinant of the degree of market power afforded by control of a rule-book) – and on other aspects of the relevant, factual circumstances.[21] However, in the event that it is decided that regulatory intervention in relation to conditions of access is warranted, there is a further set of issues and trade-offs to consider (the assessment and resolution of which can be expected to influence the general regulatory approach to be adopted).

[21] In the case of indirect access to payment systems, the relevant competition is not that which occurs between payment systems themselves but rather competition among those businesses with direct access to payment systems, of which there are relatively many. Thus, the OFT market study in 2003, concluded that competition for agency business was intense, and that no evidence was found of significant problems with the level of agency fees. See OFT, 2003. "UK payment systems: An OFT market study of clearing systems and review of plastic card networks". May 2003, page 63. Similarly, a 2009 OFT Review of the operation of the Payments Council concluded that 'no concerns' over access to membership or participation had been raised in relation to the Cheque Clearing, CHAPS and BACS schemes. See OFT, 2009. "Review of the operations of the Payments Council". March 2009, page 34.

58. One such is the set of issues surrounding the *terms* (including price and non-price) on which firms operating at one stage of a supply chain, such as at the retail level, can obtain access to a 'core' network activity, such as a payment system or transportation/transmission network.

59. Another potential set of issues arises depending on whether 'one-way' access and 'two-way' access arrangements develop. In general terms, one-way access arises where a single network operator (the access provider) supplies inputs to firms operating in related activities (the access users) at different stages in the production chain, but does not purchase any of its own inputs from these access users.[22] In contrast, two-way access arrangements involve an access provider supplying some inputs to other firms and, at the same time, purchasing some of its own inputs from other access providers. In the latter case, the arrangements are more symmetric because each firm providing an 'essential' input also requires access to 'essential' inputs supplied by other firms in the market.[23]

60. Access issues are further complicated:

    - When the firm supplying the network input remains vertically integrated, and therefore also competes alongside entrants in activities where competition has been introduced. This structure can create incentives for the vertically integrated firm to leverage any market power in the network activity into the competitive activity.

    - In the presence of economic externalities associated with the interconnection of different networks, and such externalities arise in telecommunications and transport industries as well as in payment services.[24] One issue that has arisen in the utility industries in such cases is whether the access price should be adjusted to account for possible positive network externalities (e.g. by a 'network externality surcharge'), when a network is in its expansion stage and the value (to service users) of expanding numbers tends to be higher.

61. Much of the practical difficulty associated with access in the utility industries stems from the determination of an appropriate 'access price', and, in some cases

[22] Examples of one-way access arrangements include: access by generators and retail supply companies to transmission and distribution grids in electricity networks; access by gas shippers to gas transportation pipelines; and access to a fixed line core telephone network by competing providers of retail services in fixed telephony and broadband services.

[23] Two-way access is a feature of fixed and mobile telecommunications networks, for example, where competing mobile telephone providers each require access to termination services on the other's network, or to a fixed telephone network, in order to provide an end-to-end service.

[24] Positive externalities arise in networks where a consumer's valuation of a service increases when more people use that network, or where there are agreements between networks to allow them to be interconnected. For example, the value of a service to a subscriber connected to one mobile phone network increases whenever that network enters into an agreement with another network to allow for interconnection: the subscriber can now make and receive calls from a larger group of people.

(such as telecoms), the definition of an appropriate 'access product'. In relation to the setting of the access price, a problem across all sectors is that a single mechanism – the access price – is often being called upon to serve a range of policy objectives.[25] This again leads to potentially difficult, often imprecise, balancing exercises, for example, involving trade-offs between short-term allocative efficiency and longer-term dynamic efficiency, which is extremely difficult, if not impossible, to quantify with any precision.[26]

62. Four broad types of regulatory approach to the determination of access conditions can be observed in practice: [27]

- Parties negotiate the access terms on a purely commercial basis, with protection afforded by the 'essential facilities' aspect of general competition law when the access provider holds a dominant position (an *ex post* approach).[28]

- Parties negotiate the access terms, but with the additional backstop of regulatory arbitration in the event that negotiations fail.[29]

- The regulator imposes certain *ex ante* requirements on specific access providers, such as obligations that access terms are fair and reasonable.[30] This is a mixed *ex ante / ex post* approach since what is meant by 'fair and reasonable' is left to be determined in the relevant context.

- The regulator prescribes the specific terms and conditions of access.[31]

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[25] As Laffont and Tirole (2000:99) observe in the telecommunications context: *"[I]nterconnection charges must reflect multiple objectives. They must induce an efficient use of networks, encourage their owners to invest while minimizing cost, generate an efficient amount of entry into infrastructure and services, and do all this at reasonable regulatory cost".* See Laffont, J.J. and J. Tirole, 2000. *Competition in Telecommunications*. Cambridge MA: MIT Press.

[26] For example, a low access price might encourage entry, and the development of competition, in related activities which have been opened to competition, leading to dynamic efficiency gains, however, if the access price is set too low it might encourage inefficient entry in the competitive activity, lead to a shortfall in the access provider's revenues for that activity, and restrict the incentives for the access provider to invest in infrastructure or innovate.

[27] For a discussion of these points see Decker, C. and Gray H. (2011) 'Antitrust and Arbitration in Regulated Sectors' (2011), vol.7(2) *Competition Law International*, 7-16.

[28] This was the approach that was adopted in the 1990s in New Zealand where access issues were addressed primarily through the generic competition provisions set out in its Commerce Act 1986

[29] Sometimes referred to as a 'negotiate-arbitrate' approach, it has been used in the telecommunications and water industries in the UK, in Australia and in the US.

[30] This is the approach adopted under the European Union (EU) telecommunications framework, access providers assessed as holding significant market power may be subject to cost orientation obligations that require prices for interconnection or access to reflect underlying costs. Article 13 of Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access Directive).

[31] Referred to as 'regulated access' and, for naturally monopolistic networks, the approach most analysed in basic economics. In practice, however, access arrangements are often at a level of complexity that effective regulatory determination is infeasible, and 'hybridisation' occurs. Thus, in the UK energy sector, whilst the regulator sets price caps for network services, much of the detail is specified in network codes that are governed by a co-regulatory approach.

63. As an example of the type of assessment that is required when evaluating these broad alternatives, it can be noted that the second on the list, negotiate-arbitrate, has given rise to differing views about its effectiveness.[32] It appears the success of such an arrangement depends *inter alia* on the relative bargaining strength of the parties, the existence of clear guidance or pricing principles, and the role that the regulator plays in the resolution of any disputes relating to access (see below). In addition, the approach may not be well-suited to situations where there are multiple parties seeking access but where negotiations happen on a bilateral basis.[33] This is because the regulator can end up arbitrating essentially the same dispute many times.[34]

2.5 Structural issues: the benefits and costs of integration and separation

64. The significant challenges of developing an effective access framework for vertically integrated firms in some economic sectors, has, in some cases, led to the implementation of structural measures, typically involving the separation of different activities within a production chain. This has particularly been the case in circumstances where a vertically integrated firm operates both the network activity (the pipes, wires and rails) and is also active, and holds a strong market position, in other complementary activities that have been opened to competition (such as upstream supply or downstream retail activities). The approach may be of relevance in the payment systems context given that the establishment of the PSR is intended, in part, to address concerns about the 'potential ill-effects' of vertical integration, and the PSR has constrained power to introduce structural reform where the market is not assessed as working effectively.[35] In this context it is noted that the PSR has the power to require the disposal of an interest of an operator of a regulated payment system.[36]

65. The question of what is the most efficient industrial structure for specific utility industries – or, put another way, what are the benefits of vertical integration and

[32] In Australia, for example, the approach has been abandoned in the telecommunications industry and replaced by standardised 'access determinations'. In the US incumbent and entrant telephone companies negotiate the terms of interconnection, although incumbent operators are generally required to set cost-based rates.
[33] See Gómez-Ibáñez, J.A 2003. *Regulating Infrastructure: Monopoly, Contracts and Discretion*. Cambridge MA: Harvard University Press. Page 262.
[34] This happened in Australia in the telecommunications industry prior to reforms in 2012.
[35] See HM Treasury, 2013. "Opening up UK payments: Response to consultation' October 2013. Page 16. Some suggested examples of these 'ill-effects' include indirect users being offered a narrower range of payment services than direct members, and claims that the quality of service differs as between direct and indirect payment service members. A common manifestation of the leveraging of market power in such contexts is through the price offered to non-integrated users. However, the OFT market study in 2003, concluded that competition for agency business was intense, and that they did not receive any evidence regarding problems with the level of agency fees. See OFT, 2003. "UK payment systems: An OFT market study of clearing systems and review of plastic card networks". May 2003, page 63.
[36] The power can only be exercised if the PSR is satisfied that, if not exercised, it is likely that there would be a restriction or distortion of competition in the market for payment systems or for services they provide. Use of the power is subject to consent of the Treasury.

separation of various activities – is one that is fiercely debated both in theory and practice. The only conclusion that can safely be drawn from surveys on this issue, is that the costs and benefits of vertical integration and separation in the utility industries is highly context specific and depends, among other things, on the production characteristics of the industry and on the scope for inter-network/system competition, as well as its governance and other organisational arrangements. As in the payment systems context, in many utility industries there is an important trade-off between the losses in coordination associated with separation and the potential benefits of competition that separation may yield. Accordingly, any assessment of the costs and benefits of integration or separation needs to weigh positive efficiency benefits associated with integration against any potentially restrictive effects on competition at other stages of the production process. This conclusion is underpinned by surveys of the effects of vertical integration more generally across the economy.[37]

66. In the UK, different regulatory and policy approaches to industry structures can be seen across the utility sectors. The separation of ownership of certain activities in the electricity and rail industries was mandated at the time of privatization, but ownership separation (in the gas industry) and business separation (in the telecommunications sector) was undertaken voluntarily by the firms, albeit, under pressure from the relevant regulatory authorities.[38] The different approaches adopted across the sectors highlights a more general point which is that the use of structural remedies (such as the forced or mandatory separation of the ownership or control over certain activities) does not eliminate the need to develop an effective access framework, which is common to both separated and integrated settings. It does, however, change the nature of the issues that the regulator must be concerned with in developing a regulatory approach. Specifically, in the vertically integrated context, care needs to be exercised to ensure that the access framework does not become a means by which an integrated firm(s) can exploit its market power in the network activity through discriminating against rivals in the competitive activity. In the separation context, the approach to access needs to be designed so as to facilitate some of the benefits associated with coordination, for example in terms of methods of risk-sharing and the timing and nature of commitments made by users of the network.

[37] Joskow (2008) concludes that the overwhelming conclusion of empirical studies on vertical integration is that the specific nature of the investments and other attributes which affect transaction costs are statistically and economically important in the decision to integrate or remain separate. See Joskow, P.L., 2008. "Vertical Integration." in C. Menard and M.M. Shirley (eds.) *Handbook of New Institutional Economics*. Berlin Heidelberg; Springer-Verlag. Page 319

[38] British Gas was privatised in 1986 as a vertically integrated company. Following a 1997 MMC report into the gas industry, which recommended restructuring, British Gas split itself into BG plc (upstream gas production), Transco (transmission and distribution) and Centrica (supply/retailing). In telecommunications, British Telecom was privatised as an integrated entity in 1984, and in 2005, functionally separated its wholesale access division (into a division called Openreach) and its retail divisions (BT retail). This decision was undertaken in lieu of a reference by the regulator to the Competition Commission (the successor to the MMC) which may have resulted in the imposition of mandated structural separation.

67. Three further issues regarding the use of structural remedies, such as mandatory separation, which are potentially relevant to the payment service context, can be noted:

- A practical issue in relation to any separation is the need to identify an appropriate point, or boundary, at which separation between various activities in a supply chain should occur (i.e.: at what point could the various activities which comprise a system be separated and operated by different entities). The experience of the utility industries suggests that the identification of such boundaries is likely to be more straightforward in some industries than in others. For example, defining the initial boundaries in the electricity and gas industries was relatively simple, and involved separating the wires/pipes that comprise the network activity from generation/upstream activities and supply activities that were potentially competitive. However, defining boundaries between different activities in telecommunications – which has a closer correspondence to payment systems – has proven to be more difficult, and it can be argued that (a) there is no very clear boundary and (b) to the extent that a boundary can defined, it shifts over time as technologies change.

- A second, and related, issue is the potential separation of the ownership from the operation of certain network activities. This is a policy that has been pursued in a number of utility sectors where the *owner* of a transportation network is separated from the *operator* of that system (sometimes referred to as a system operator). In some instances the owner of the network and the operator are entirely separate legal entities (with the system operator sometimes being a non-for-profit organisation known as an Independent System Operator). In other instances the owner of the infrastructure and the entity responsible for system operation are within the same corporate group (e.g.: National Grid or BT), but the activities have been functionally and operationally separated from one another.[39] In this context, we note that the issue of the separation of payment schemes from the underlying infrastructure is one that has been debated in the past.

- While the discussion so far has made a binary distinction between vertical integration and separation, in practice, separation can take various forms, including: accounting separation, structural/business separation, legal separation and ownership separation.[40] In general terms, the suitability of the

[39] The former case is common in the US electricity industry and the latter is true of the electricity and gas network in England and Wales and the telecommunications network in the UK.

[40] While the main focus here is on vertical separation, requirements for 'horizontal separation' can also arise in circumstances where a firm is engaged in activities which are potentially substitutes for one another. An example is the requirement that telecommunications network operators separate out their interests in cable networks, which are potentially competing infrastructure providers. The EC Cable Directive of the EC (1999/64/EC) imposed a requirement that telecommunications services and cable television networks be legally separated. Another example involves the separation of different electricity generating facilities into separate companies, such as occurred in Britain with the break-up of the Central Electricity Generating

different forms of separation depends heavily on context, and in particular, on the strength or weakness of the incentives for the integrated firm to discriminate against rivals. However, as noted, even when such incentives are assessed as strong, the benefits associated with separation, in terms of reduced incentives to discriminate against competitors, needs to be balanced against any potential costs associated with the loss of scope efficiencies and increased transactions costs. It follows that in relation to payments systems an important consideration is the scope and magnitude of any scope-efficiencies associated with the integration of different functions/activities within a single entity/system.

2.6 Regulating for innovation

68. Another longstanding issue relating to payment systems, and an important catalyst for the introduction of a new economic regulation regime, is the perception that the pace of innovation has been slower than it realistically might have been.[41] According to HM Treasury, this has been said to have resulted in significant losses to the UK economy.[42] In consequence, the PSR has been given an explicit 'innovation' objective; to promote development and innovation in the payment systems in the interests of users of payment systems.

69. An important characteristic of decision-making in relation to innovation and investment in the payment services context is the interdependence of participants, and the consequent requirement for some degree of coordination in implementing major changes. Under the current arrangements, and notwithstanding changes that have been introduced in the Payments Council governance arrangements, it is our understanding there is still a need for some form of consensus among members in relation to key decisions, and that a failure to reach consensus can slow down projects and lead to delays (the example of mobile payments is often cited in this context).[43] In addition, once a decision is taken by the Payments Council a single member can potentially block or slow down progress in implementation, which has the effect that the pace of development can be limited to that of the slowest participant.[44]

70. However, although these governance issues exacerbate the problem, as explained above the underlying difficulties derive from the existence of market power. When opportunities for value-adding innovations occur, businesses and institutions with

Board into three separate generating companies (National Power, PowerGen and Nuclear Electric) in the 1990s.

[41] However, we note that the 2009 OFT review of the payments council concluded that the "Payments Council had performed well against its strategic vision objective" and that it had "made good progress on advancing the specific innovations it had identified as important". See OFT, 2009. "Review of the operations of the Payments Council". March 2009, pages 28-29.

[42] See HM Treasury, 2013. "Opening up UK payments". March 2013. Page 7.

[43] See HM Treasury, 2012. "Setting the strategy for UK payments". July 2012. Page 16.

[44] This is one factor that is claimed to have lead to the slow implementation of Faster Payments Service. See ibid 19.

substantial market power do not face the existential threats that confront their counterparts in more competitive circumstances in the event that the opportunities are not taken (and are seized instead by rivals).

71. The question of how innovation can be incentivised under a regulatory framework is perhaps the most challenging of all regulatory issues in the utility sectors. In UK energy networks, where levels of research and development activity fell substantially after privatisation, Ofgem has considered various mechanisms to incentivise innovation which can be broadly categorised as 'input-based mechanisms' and 'output-based' mechanisms, but all have been limited in scope and none has come close to replicating the incentive properties of competition.

72. The issue of how the regulatory framework affects the incentives for investments in new and potentially risky infrastructure has been more at the forefront in the telecommunications sector. One issue that potentially has relevance in the payment services context, is the extent to which obligations relating to the sharing of the benefits of innovations (such as some that may feature in mandatory unbundling policies) might chill incentives for investment and innovation in next-generation infrastructure. Various regulatory approaches have been suggested in response. One, which builds on analogies with patent policy, is for the regulator to commit to not placing any sharing or access requirements on a network owner for a set period of time following the innovation. This approach, sometimes referred to as a regulatory or access 'holiday', amounts to a time-limited right to refuse the supply of use-of-network services to others.[45]

73. Another approach, referred to as regulatory forbearance, involves the regulator agreeing not to regulate specific services, but involves no specific time frame and therefore does not completely rule-out the future introduction of requirements to provide access to the asset/innovation.[46]

74. Alternative approaches do not seek to modify existing access arrangements, but rather seek to provide additional incentives for investment in next-generation infrastructure. One option, favoured by the European Commission, is to add a 'premium' to the cost of capital component of the access price in recognition of the risks associated with such investments. Another proposed approach has been for governments to provide subsidies and support for such investments, on the view that affordable and universal access to broadband services should be provided to all citizens. [47]

[45] See generally: Gans, J.S. and S.P. King, 2004. "Access Holidays and the Timing of Infrastructure Investment." *Economic Record*. 80: 89-100.

[46] The forbearance approach has been adopted by the FCC in the USA in relation to fibre and IP networks since 2003. In Europe, however, the approach has been considered, but rejected.

[47] Public support for investments in next generation networks can, and has, taken various forms, including fully funded public investments through a separate company (such as has occurred in Australia's National Broadband Network, and in Qatar), specific subsidies and other financial incentives to provide investment in specific regions (such as has occurred in Canada, Germany, Greece, Korea, Portugal, Singapore, the UK and

75. Is it worth noting here that there can be a tension between interventions of a regulator that are designed to promote the incentives of incumbent or dominant operators to innovate and the risk that the same interventions may dampen the incentives of other operators to innovate. A possible example here is the Microsoft media player/interoperability decision of the European Commission. In this case, on appeal the Court of First Instance (now the General Court)[48] concluded that Microsoft had not demonstrated that the disclosure of the interoperability information would significantly reduce or eliminate its incentives to innovate. In other words, the court favoured disclosure on the basis that the disclosure was needed to preserve the incentives of other parties to innovate. The fact that the interoperability information was secret, of great value and represented important innovations could not, in the view of the Court, provide objective justification for refusal to supply.

76. A final relevant aspect of the issue of regulation for innovation concerns the question of whether the industry or the regulator (or a combination of both) should be responsible for setting out the strategic vision and then overseeing the required investment projects. In this respect, the experience of approaches adopted for payment systems in other jurisdictions – notably Australia (discussed in section 3 below) – are of potential relevance.

77. More generally, the issue of who should be responsible for the coordination of investment decisions is one that has featured prominently in utility sectors that have been restructured. In vertically separated electricity industries, for example, there has been some concern as to the appropriate co-ordination of generation and transmission investments in the context of a need for substantial new generation investment in some jurisdictions, and an accompanying shift in the profile and location of generation facilities, particularly a need for transmission to connect to often remotely located renewable generation facilities. There has been debate in some restructured electricity markets as to whether there is a need for some form of centralized 'transmission planner' who can 'co-optimize' decisions relating to generation and transmission, including taking a 'strategic' approach to the development of the transmission network.[49] The issue of how binding any commitments made by various parties to invest are remains, however, an open question and in some jurisdictions it has been suggested that a regulator (or other body) should be able to compel network firms to undertake necessary investments.

USA), co-investment arrangements such as public-private partnerships (such as has occurred in Finland, Spain and Malaysia), and support for municipal initiatives for broadband deployment (such as in Sienna in Italy, and Groningen in the Netherlands).

[48] Case T-201/04, Microsoft Corporation v Commission, judgment of 17 September 2007.

[49] In Europe, the Third Energy Package contains a requirement for the European Network of Transmission System Operators to develop a 10 year network development plan to provide information to market participants on investments in transmission capacity that are considered necessary on a Pan-European basis. In Australia, the system operator has assumed the role of national transmission planner, and is required to publish a long-term plan for the development of the transmission grid over a 20-year time horizon.

78. On the basis of what has been said above, however, the risks of an approach where the regulator acts as the system planner and can compel firms to make investments should be obvious. Central planning of this type is an extreme form of monopoly power and historical experience teaches that monopoly is not conducive to innovation.

2.7 Regulatory predictability, proportionality and the timing of regulation

79. One of the central normative arguments for the establishment of independent regulatory agencies in the utility industries is that they can potentially address what is generally known as the 'time-inconsistency' problem in public policy making.[50] This problem arises in contexts where a government commits itself in one period to behaving in certain ways in the future but, when the future arrives, it then reneges on the earlier commitment because it is at variance with its preferences at that later point in time. Time-inconsistency obviously affects the decisions of market participants who base their decisions, at least in part, on *expectations* of future policy decisions or government actions. Independent regulatory agencies are seen as offering a buffer against such time-inconsistency and also against fluctuations in the preferences of current and future governments.

80. The (inevitably partial) insulation of regulatory decision-making from the vicissitudes of day-to-day government priorities does not necessarily mean that the regulator, and the regulatory process itself, will be capable of providing credible commitments as to its future decisions. Indeed, the delegation of powers to a regulatory agency creates a 'secondary agency problem', whereby the agency may not face the correct incentives to collect relevant information, or may abuse its own powers.[51]

81. The critical factor is that those affected by regulatory decisions have confidence that they will not be subject to short-term or opportunistic decision making (i.e. the reputation or trust issue identified above). It will be for the regulatory authority to develop this confidence (or destroy it) via its own conduct through time and, as also suggested earlier, the benefits that can flow from a predictable and stable regulatory approach are considerable.

82. The advantages of predictable and stable regulatory approaches do not, however, imply that they should be unresponsive to changes in the relevant market environment. Inflexibility in regulatory arrangements, or sticking to regulatory approaches and strategies that are no longer appropriate and likely to be inimical to overarching objectives (what can be called 'stranded regulation') can be highly

[50] Time-inconsistency problems have been frequently identified in the area of monetary policy, and have been a major factor in the creation of independent central banks.
[51] See Laffont, J.J. and J. Tirole, 2000. *Competition in Telecommunications*. Cambridge MA: MIT Press. Page 56.

disadvantageous in technologically evolving areas such as payments services and telecommunications.[52] To repeat the earlier point, what is most important is that what we have called the *rule-change process* is stable and predictable.

83. Another set of issues concerns the scope of regulation, and in particular the proportionality of regulatory actions. Whilst this is an issue that confronts all regulators, who are prone to extend the use of their own market power beyond the levels and limits at which its exercise is beneficial, particular problems can arise in settings characterised by fast moving technologies and innovation. Such settings are very frequently characterised by extensive, short-run economic inefficiencies, precisely because innovation tends to undermine established ways of doing things and adaptation is never instantaneous. It is therefore all too easy to declare a 'market failure' (i.e. that the market is inefficient in some way or another) and to believe that 'something must be done' about it.

84. This is the other side of the coin from 'stranded regulation', and might be called 'hyperactive regulation'. The risk is that, because it substitutes a monopolistic form of adaptation (that dictated by regulation) for competitive adaptations it (a) makes matters worse, not better, and (b) once implemented it may quickly become another form of 'stranded regulation'.

85. The common factor in both 'stranded regulation' and 'hyperactive regulation' is the existence of a changing market environment, and the aim is, as always, to get the balance right (i.e. proportionate). Speaking loosely, what is to be decided in particular circumstances is whether more regulations or a removal of regulations would be a case of "a stich in time saving nine" or "fools rushing in where angels fear to tread". As the conflicting advice of the proverbs indicates, there is no one, general answer. However, it is possible to say that there are systematic factors at work in both directions. Bureaucratic and procedural inertias tend to push toward the 'stranded' end of the spectrum, whereas the tendency to extend the use of market power (in this case by regulators) beyond its appropriate boundaries pushes toward the 'hyperactive' end.

2.8 Multiple regulators and multiple objectives

86. The current regulatory regime that applies to payment systems is complex and a range of bodies have responsibility for the oversight of the sector, including: HM Treasury; the Bank of England; the Financial Conduct Authority; and the Competition and Markets Authority. In addition, under the current arrangements as they stand, the Payments Council is a self-regulatory body responsible for setting the strategy for the UK payments sector. Each body has responsibility for

[52] Hausman and Taylor argue that the 'misguided efforts' of US regulators, courts and legislators to bring about a particular vision of competition in the telecommunications markets delayed innovations, misled investors and cost consumers billions of dollars. See Hausman, J.A. and W.E. Taylor., 2012. "Telecommunications in the US: From Regulation to Competition (Almost)." *Review of Industrial Organization*. Forthcoming.

different aspects of payment systems. More generally, there are a number of international organisations – most notably the European institutions – which impact on regulatory policy in this area.

87. It is not unusual for multiple bodies to be involved in the regulation of a particular economic sector.[53] While the division of responsibilities and powers across multiple regulatory and oversight bodies does not *necessarily* create major problems (and may well be preferable to a conglomerate 'super-regulator' charged with pursuing a range of policy objectives), difficulties and tensions can arise in circumstances where there is overlapping jurisdiction or powers/responsibilities and there is no clear delineation of responsibility among the agencies, i.e. when there are flaws in the overall *regulatory design*.

88. The recent experience of the operation of the concurrency arrangements in the UK provides an example of the challenges of allocating responsibility (in this case for competition law enforcement) among various bodies. More generally, however, there are a number of examples of where actions taken by a regulatory authority have come into potential conflict with the objectives or policy goals of other bodies such as government departments (and vice versa).

89. In the payment systems context, one area where there may be benefit in some form of formalised arrangement or understanding is in respect of the interaction between the PSR and the Bank of England, particularly in relation to the Bank's stability remit. The view taken in establishing the new regulatory framework was that there were 'no concerns' regarding the Bank's remit, and it was noted that *"[p]reserving financial stability will continue to be given priority in decision-making in relation to payments networks"*.[54] The legislation establishing the PSR requires the PSR to have regard to the importance of maintaining the stability of, and confidence in, the UK financial system in discharging its functions. In addition, it is also our understanding that the PSR and the Bank of England will enter into a Memorandum of Understanding which can be expected to contribute to better understandings as to how each body interprets stability.

90. However, notwithstanding these arrangements, in practice there is potentially more scope for misunderstandings or different interpretations to develop as to what 'financial stability' means if this concept is not clearly defined from the outset. Specifically, there is scope for some interpretations of the stability objective to come into conflict with the competition, innovation and service-user objectives of the PSR.

[53] For example, in England and Wales, the responsibilities for the water industry are principally divided between three independent regulatory bodies: the independent economic regulator (Ofwat), the Drinking Water Inspectorate, and the Environment Agency. In addition, there is a statutorily independent body charged with representing consumer interests, and a government department (DEFRA) also plays an important oversight role in the industry

[54] See HM Treasury, 2012. "Setting the strategy for UK payments". July 2012. Page 18.

91. The point is simply that competition, innovation and the interests of service-users (on the one hand) and stability (on the other hand) are not wholly separable issues. The overall regulatory design, and the way that individual regulators function within it, needs to take account, in some way or another, of the relevant interactions. Failure to do so effectively introduces risks that achievement of objectives on each side of the regulatory fence will be impaired, and one of the potential sources of such failure is divergence in the regulatory approaches and cultures of the different public bodies that are involved. Conflicts between energy and environmental regulation provide perhaps the most outstanding examples of the costs that can be involved in failures in intra-governmental co-ordination, but the underlying problem is ubiquitous.

92. A further issue concerns the interaction between the various duties that the PSR has in relation to payment systems under the Financial Services (Banking Reform) Act 2013. These encompass three primary objectives (the competition objective; innovation objective and service-user objective) as well as a set of factors which the PSR must have regard to in discharging its functions (including maintaining stability and confidence in the payments system; the importance of payments systems in relation to the functions performed by the Bank of England; and a set of regulatory principles as detailed in the legislation).

93. The experience of other economic sectors indicates that the remit of economic regulators has been broadened over time to include multiple objectives, particularly competition law, environmental and other social objectives. Such additional obligations can change how the agency interprets the 'purposes' of its work, and can distract the regulator from the more central objectives that it has been established to pursue. In a 2007 report by the UK House of Lords Select Committee on Economic Regulators, it was unanimously agreed by economic regulators that clarity is the most important quality of a regulator's remit. This is because clarity enables regulators to understand their overarching purpose, and then to focus on the work in hand.[55]

94. Multiple regulatory objectives can also cause problems when, as is often the case, a regulator is under political or media pressure to ensure that a particular, specific outcome is achieved in its area of responsibility. A laundry list of objectives gives greater scope for re-weighting of objectives so to tilt decisions towards those that yield likely outcomes closer to those favoured by the external pressures. Since external pressures are often volatile – their priorities can change radically over short-periods of time – there then tends to be risk of less stable, less consistent regulatory decisions over time.[56]

[55] House of Lords Select Committee on Regulators 'UK Economic Regulators' 1st report of session 2006-07, page 23.

[56] A 2004 OECD report (in the context of competition policy, but equally applicable to economic regulators) captures this point: *'The inclusion of multiple objectives, however, increases the risks of conflicts and*

95. While the three primary objectives of the PSR appear to be fairly narrowly specified, and are therefore consistent with the guidance provided by the House of Lords, it is important that care is taken to ensure that the interaction between these primary objectives and the other factors which the PSR must have regard to in its actions and decisions – particularly the stability and confidence duties – is well understood and specified in order to maintain confidence in, and the predictability of, the ways in which the PSR will seek to discharge its duties.

2.9 'Targeted' or 'generic' regulation

96. A final high-level consideration in developing a regulatory approach concerns whether the regulatory policy decisions and actions should be developed on a case-by-case basis (on the basis of common, general principles), or whether decisions and actions should apply to all, or to certain categories, of market participants. The issue is closely inter-linked with the rules versus standards and *ex ante / ex post* questions discussed earlier.

97. Once again the experience of regulation in different contexts indicates that, in practice, a combination of the two approaches is frequently adopted, with the balance between them reflecting the particularities of the relevant economic context. However, in economic regulation, the balance is tilted toward targeting, reflecting the fact that such regulation is concerned principally with issues of market power, and market power is something that is specific to particular businesses and groups of businesses, not something that is usually associated with all participants in a market (the exception being a pure natural monopoly, where the distinction between targeted and generic regulation collapses in any case).

98. Competition law offers the most obvious example of targeting. A general principle – roughly 'thou shalt not exercise market power in ways that cause harm' – applies, but targeting occurs by placing greater restrictions on firms with more market power, roughly corresponding to the notion that 'with greater power comes greater responsibility'. Firms that are assessed to be dominant in the markets in which they operate are said to have 'special responsibilities'.

99. Even in competition law, however, there are elements of the generic approach, as illustrated by the existence of safe-harbours for vertical agreements among firms that are defined in terms of market-share thresholds, aimed at reducing

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inconsistent application of competition policy. The interests of different stakeholders may severely constrain the independence of competition policy authorities, lead to political intervention and compromise and adversely affect one of the major benefits of the competitive process, namely economic efficiency. In most cases the conflicts between economic efficiency and other policy objectives either are insignificant or can be balanced. Nevertheless, the rank and weights attached to the multiple objectives of competition policy remain largely ambiguous and need to be defined. This is necessary to ensure both business certainty and public accountability.' OECD, 2003. 'Objectives of competition policy' *Journal of Competition Law and Policy* v.5, pages 8-9.

enforcement and compliance costs, so that the approach might be described as targeted regulation, supported by generic components in the name of administrative expediency. More obviously, some antitrust approaches rely on *per se* rules that prohibit certain types of conduct, irrespective of context and effects, which can be contrasted with the more familiar, case-by-case, *rule of reason* approach.

100. Although the primary concerns of economic regulators are centred on issues of market power, they nevertheless have to deal also with a range of other issues, often concerned with the technical details of an industry's operations. In energy, for example, these might include access arrangement details that are concerned with the safe and reliable operation of the supply system as a whole or with a matter such as the inter-operability of smart-metering arrangements. In these areas, generic approaches are more common, and the approach tends to be based on detailed, *ex ante* rule making.

101. A good example of how these things work out in practice is electricity regulation in the USA, where regulatory tasks are divided between company-specific and industry wide activities. Company-specific issues are typically classified into three types – applications for rate changes; applications for changes in access arrangements; and complaints – and the process is triggered when an application or complaint is 'filed' with the regulator.[57] Two characteristics of this approach are: (i) that it is reactive, the regulator only responds to specific issues that have been identified by market participants; and (ii) there is often scope under the arrangements for different types of settlements and proposals to be made by individual companies tailored to their individual circumstances – for example, negotiated settlements, or the use of novel approaches to charging structures in some circumstances. This can have the effect of ensuring that the regulator does not adopt a 'one-size-fits-all' approach.

102. The process for industry-wide issues is different, and is typically started by the regulator issuing a Notice of Inquiry (NOI – which involves a process of collecting information, ideas and opinions) or a Notice of Proposed Rulemaking (NOPR – which generally indicates that the regulator is proposing a new regulation or policy change). After consulting on these Notices, any new regulations or policy changes will generally be issued in the form of an Order, policy statement or rule making which typically have industry-wide effect. Finally, and in addition to these mechanisms, regulators can typically initiate their own investigations in certain circumstances.

[57] The specific application or complaint is then typically posted on the regulators website and interested parties are invited to comment.

3. APPROACHES TO THE ISSUES IN OTHER SECTORS AND CONTEXTS

103. In section 2 we identified and discussed some of the high-level issues on which the PSR will have some choice in developing and implementing its regulatory approach, giving selected illustrations from other economic sectors and contexts. In this section, we consider these other sectors and contexts on a more systematic basis. As stated at the outset, however, and in line with the specification for the project, the coverage is necessarily selective. This reflects the fact that the study is only one of many inputs into the policy process and that the PSR's consultation process will provide opportunities for other examples to be explored in the event that they are considered informative.

3.1 Energy

Industry structure

104. In the UK energy sector, network activities have been separated from competitive activities (such as wholesale supply or retail supply) and the ownership of network infrastructure has been separated from systems operation activities. There is no significant 'across-the-market' competition at the network level between competing transmission and distribution network infrastructure in the energy sectors in Britain. There is, however, competition around the edges of the major networks, including from independent networks at a local level.[58] There is also scope for infrastructure competition in facilities that are connected to the systems of wires and pipes that transmit and distribute energy, the most notable of which are power stations and gas storage facilities. It is even possible for there to be a degree of competition between such facilities and the wires and pipes themselves,[59] and it can be noted that the general shape of regulation is such as to accommodate movements in the direction of competition to provide infrastructure facilities via what is sometimes referred to as a "deepening" of system operator responsibilities, i.e. the system operator taking on greater responsibilities for procuring transmission and distribution infrastructure by means of competitive bidding.

105. It nevertheless remains the case that ownership and control of the major transmission and distribution networks is associated with very substantial market power, and this has a major impact on the scope of regulation in the sector and on the regulatory approaches taken. In particular, network regulation is focused on the setting of price controls and establishing (one-way) access arrangements that are fair and non-discriminatory in nature.

[58] For example, for new housing and industrial developments, in offshore electricity and gas transmission networks, and in interconnectors linking different energy systems.

[59] Thus, in responding to an increase in demand in a particular geographic area, it might be feasible to (a) build new generating capacity in the area or (b) increase the transmission capacity serving the area so as to enable power from existing generating facilities located in other areas, including overseas, to be used to meet the extra demand.

Systems operation

106. Systems operation is a co-ordinating function that is aimed at preventing the developments of imbalances in energy systems that can have large, harmful effects. In most markets, if there is excess demand some customers will not be supplied, but the economic harm suffered is confined to those who are unable to acquire the product or service – those who are served, usually the great majority, are largely unaffected – and even those who are not served might not suffer great damage (e.g. they may simply have to wait a while for supplies to arrive). In electricity, however, and to a lesser extent in gas, short-term supply/demand imbalances can lead to much more extensive supply failures, such as an electricity black-out. That is, there are systemic effects.

107. Because (a) imbalances can arise very quickly, as for example when a power station or transmission line develops faults, and (b) supplier and consumer reactions via the price mechanism may not occur quickly enough to rectify the imbalances, systems operations has developed as a means of achieving very rapid co-ordination in response to short-term changes in electricity and gas flows.

108. There is no directly equivalent analogue of energy imbalances in payment systems, but there are systemic issues: a technical failure in a payments system may affect large numbers of people over a time period too short for serious harm to be mitigated by normal market reactions, and a failure in the settlement system may have systemic consequences on the financial side. As in energy, therefore, these factors give rise to a role for co-ordinating activities that go beyond those typically feasible via the price system.

Industry codes

109. An important institutional development that has occurred in the liberalised energy sector (and which has been adopted across Europe[60]) is the use of industry codes, which set out many of the rules regarding participation in the electricity and gas markets. The codes are modifiable, multiparty agreements which set out the contractual framework for connection to, and use of, the networks and allow for the execution of bilateral agreements, entered into pursuant to the code, which contain the site-specific terms for connection to, and/or use of, the system.

110. A co-regulatory structure has been developed both in relation to the management of the code, and for assessing proposed changes to the code. The amendments/modifications panel comprises industry members, representatives

[60] Following the introduction of the Third Energy Package in Europe, the European Commission and the Agency for the Cooperation of Energy Regulators (ACER) will develop common code frameworks in energy and gas with the cooperation of the EU associations of system operators in gas and electricity (ENTSO and ENTOG).

from a consumer representation body and the regulator. Code modifications can be proposed by the individual parties, but require the approval of Ofgem. Ofgem decisions can in turn be appealed to the Competition and Markets Authority (CMA).

111. Whilst this approach might look cumbersome on paper, in practice it has worked relatively smoothly. A party that believes that certain aspects of the rules are not working well can propose a modification to the code, which will then be evaluated. In the vast majority of cases (which chiefly concern technical issues), Ofgem will accept the recommendation of the panel, on completion of the panel's evaluation. The regulator is, however, able to reject the panel's recommendation, for example by approving a proposed modification that is not favoured by the panel majority (subject to any appeal to the CMA).

112. These arrangements provide an obvious protection against incumbents developing the rule-book in ways that are favourable to their own interests, and contrary to, say, the interests of recent entrants or consumers. Moreover, because they have the power to propose amendments, disaffected parties can ensure that issues are addressed by pro-actively proposing code modifications: they do not have to wait upon the initiatives of the regulator. Alternatively, dissenters can oppose modifications that they consider undesirable (by making submissions to the panel), safe in the knowledge that their views will be brought to the attention of Ofgem in the panel's report on the relevant modifications. In short, the co-regulatory structure serves to mitigate market power deriving from any undue influence of particular parties over rule-books.

113. The arrangements have tended to (a) promote active participation in code governance, (b) discourage incumbents from seeking to use the rule-books to advance their own interests at the expense of others (because such attempts will likely be defeated via the requirement for Ofgem approval), and (c) serve to reduce regulatory burdens by virtue of the fact that the Ofgem role is largely one of adjudication. In practice, appeals against Ofgem decisions have been very rare, which is arguably an indicator of good governance arrangements. In our view, code governance has been one of the quiet successes of energy regulation since privatisation.

114. No regulatory arrangement is free of imperfections, however, and code governance has seen continuing, though not rapid, development. One of the weaknesses of the early code arrangements was the piecemeal way in which code modifications were proposed and developed. The weakness is particularly significant when major changes are taking place in the markets being served, and in energy the major sources of recent change have been industry-developments triggered by climate change issues and EU Directives. In response, arrangements have been changed so as to allow Ofgem to conduct periodic Significant Code Reviews, which enable it to consider how the rules are operating in a more holistic

way, and to identify broader sets of modifications that the regulator considers to be warranted. It remains the case, however, that the modifications themselves have to be proposed by parties to the relevant, multi-party agreement. This more active, albeit periodic, role for the regulator sits slightly uneasily with its adjudicative role in the process, but the tension is eased a little by virtue of the possibility of appeal to the CMA.

Competitive activities in the energy sector

115. In relation to the competitive activities in the energy markets – such as upstream and retail competition – the regulator's involvement has generally shifted over time away from prescriptive *ex ante* regulation towards a more *ex post* approach (although there has been some retreat from this tendency in recent years, chiefly as a result of political pressures in a period of rising energy prices).[61] Participants in the competitive activities (wholesale and retail supply of energy) are generally licensed and are subject to the various requirements agreed when they sign up to a network code.

116. Since electricity and gas supplies are physically pooled – there is no direct link between the power or molecules put into the system by specific electricity generators or gas producers and the power or molecules taken out by specific consumers – complex arrangements are required to measure and allocate the various inputs and output and to determine the accompanying financial settlements. Thus, in wholesale/bulk electricity for example, there is an extensive 'balancing and settlement code', which is another detailed rule-book whose function is to facilitate economic exchange and which has its own governance arrangements, also based on a co-regulatory approach.

117. In terms of planning for longer term investments, the system operator is responsible for identifying areas of future investment (in the form of a ten year statement), but the investment itself is undertaken by the relevant transmission network owner. As noted in section 2, there have been some issues associated with the incentives for transmission network operators to undertake more risky investments that require large capital expenditures to connect distant renewable energy sources. The energy regulator has considered various options for promoting innovation and has ultimately introduced a set of input and output based approaches (including the use of prizes) as part of its RIIO programme.[62]

[61] For example, the regulator is becoming more involved in the determination of the types of tariffs that retailers can offer.

[62] RIIO is Ofgem's framework for setting price controls for network companies. RIIO (Revenue=Incentives+ Innovation+Outputs) is a new performance based model for setting the network companies' price controls which will last eight years.

3.2 Water

Industry structure

118. No separation of network and competitive activities or of ownership and system operation has occurred to date in the water sector in England and Wales (although in Scotland there has been some structural separation introduced to encourage retail competition for non-domestic households). The traditional regulatory focus in water has accordingly been on the setting of a single price control for each vertically integrated company engaged in network, upstream and retail activities. There is, however, an intention for the different elements of the price control to be explicitly separated in future price control processes. In relation to access, a common carriage policy was introduced in England and Wales in 2005. However, this form of competition has generally been seen as ineffective in creating the conditions where water customers can switch suppliers.[63] Some have attributed this outcome to implementation problems, including difficulties associated with the process of concluding the terms of the access agreements between the parties and significant problems with the access pricing methodology adopted in statute and implemented by the regulator.[64]

119. The sector remains subject to ongoing regulatory reforms. The Water Act 2014 was published on 15 May 2014, and contains a number of measures designed to promote competition in the sector. In particular, it introduces a revised water supply licensing regime to open up retail and wholesale competition in relation to supply to all non-household customers in England.

Innovation

120. The problem of promoting innovation in networks is one which has arisen in the water sector, where the level of innovative activity has been assessed as being generally low and highly variable across different water companies. The question of how to promote innovation was also a major aspect of the Cave review of competition in water in 2010. Among other things, the review concluded that innovation tended to be driven by new water and environmental quality standards, and that the regulatory framework did not always encourage significant investment in R&D or the trialing or adoption of innovations.[65] Among the main recommendations was that: (i) Ofwat should encourage greater innovation by increasing the incentives for outperformance and addressing the potential bias to capital expenditure for the network elements of the production chain; and (ii) various government, regulatory and other bodies (including Parliament and the

[63] As of 2011, only one customer had switched to a new supplier in six years
[64] See Yarrow, G.K., T. Appleyard, C.A. Decker and T Keyworth, 2008. "Competition in the Provision of Water Services." Regulatory Policy Institute Working Paper. April 2008. Page 69.
[65] Cave, M., 2009. "Independent Review of Competition and Innovation in Water Markets." Final Report. April 2009.

Welsh Assembly, industry, regulators, suppliers, research councils, Technology Strategy Board) should come together to agree a shared research and development 'vision' for the industry and to coordinate their work, and in support of this the review recommended the establishment of an industry research and development body.

Multiple regulation

121. Multiple regulatory and other public bodies operate in the sector, with potential tension at times between the authorities responsible for economic regulation and environmental regulation. In particular, the economic and environmental regulators have historically adopted different approaches towards the issues of abstraction trading, with the economic regulator favouring an approach that facilitated market-based trading and the environmental regulator seeing such trading as an opportunity to reduce the level of overall abstractions in certain catchment areas (by reducing abstraction rights on any occasion that they are transferred from one party to another – in effect a tax, at a high rate, on trading in the relevant rights).

3.3 Telecommunications

Industry structure

122. As indicated in section 2, there has been a radical transformation of the telecommunications industry in in the last three decades such that the structure of the industry has moved from one characterised by a single provider of end-to-end communications services, to one characterised by competition among a range of communications networks.[66] This change has had profound implications for the regulatory approach applied to the sector.

123. An important factor in this emergence of competition among different networks has been the separation of the underlying network infrastructure from the services provided on that infrastructure. Historically, different network infrastructure technologies tended to be associated with specific services, but, largely as a result of digitization, and developments in IP technology, different networks have become able to provide multiple services using a common technology infrastructure, and numerous services can now be provided on a common network infrastructure. The greater separation between 'the network' infrastructure and the 'services' that are carried on that network has had important implications for demand-side and supply-side substitutability, and hence for the development of competition. In particular, it has created the potential for increased

[66] Note, however, that while there is competition between different networks (the fixed line PSTN, cable, mobile and satellite) there has generally not been a full replication of an entire network infrastructure (although there is some competition in the provision of backbone or trunk network infrastructure).

competition between different network infrastructures, so-called facilities-based (or infrastructure-based) competition.[67]

Regulating access

124. A consequence of this change in the structure of the telecommunications industry is that the access arrangements have evolved from being 'one-way' in nature to being 'two-way' in nature; implying that the different network operators often need to acquire essential inputs from one another in order to provide an end-to-end service. However, despite the increasing convergence in technologies, and in the services that are offered across the different infrastructure mediums (PSTN, cable networks and mobile networks), each type of infrastructure has faced a different regulatory history. A legacy of this point is that the different types of telecommunications network infrastructures are subject to different regulatory arrangements, notwithstanding the fact that they may now be supplying the same, or closely substitutable, services to one another – arguably an example of the 'stranded regulation' discussed above.

125. For example, while a traditional, fixed-line network operator such as BT Openreach, is typically subject to *ex ante* regulation, similar regulatory obligations have not been imposed on cable network operators. Given the increased competition between these networks, there are obvious questions that can be asked about the potential impacts of this asymmetric regulatory approach, which are likely to be different in today's conditions than when the fixed line network was in place but cable networks were still in their development phase and commanded a much smaller share of the relevant markets (circumstances in which the asymmetric approach is more congruent with the principles of economic regulation).

126. In jurisdictions like the UK where 'unbundling' policies have been pursued, the regulatory approach has shifted away from the classic, 'natural monopoly' model, focussed on regulating retail prices and a single wholesale access product, toward setting access prices for a range of different services with the aim of facilitating the development of infrastructure, or 'quasi-infrastructure' competition between entrants and the incumbent supplier. BT has been required to provide unbundled access to its local loop to other operators since 1999. Nevertheless, a strategic review of the industry by the regulator in 2005 concluded that competition in the fixed line market was still not adequate, and this led to a voluntary undertaking by BT to operationally separate its network activities (to be provided

[67] For example, the PSTN network can be used to provide not only voice services, but also data services, through narrowband and broadband Internet access, as well as some limited broadcasting services. Cable networks now typically provide cable TV services, as well as high-speed Internet and voice telephony services, and mobile telecommunications networks can provide mobile services, data services, Internet access and broadcasting services.

by a new entity known as Openreach) from its other activities, such as retail services.

Scope of regulation

127. The regulatory framework for telecommunications in the UK is heavily influenced by the EU Regulatory Framework for Electronic Communications which has been explicitly modelled on concepts from European competition law. In general terms, the framework is applied in three steps: first, markets susceptible to *ex ante* regulation are defined on the basis of perceived competition problems; second, a market analysis is undertaken to assess whether any operators hold a position of significant market power in that market; third, 'remedies' are applied to those operators that hold significant market power. The remedies can include obligations in relation to access, transparency, cost orientation obligations (including price regulation), accounting separation requirements or non-discrimination obligations.

128. It is notable that, under this approach, the number of markets susceptible to *ex ante* regulation was reduced from 17 wholesale and retail markets in the 2002 telecommunications directive, to 8 markets (1 retail and 7 wholesale markets) in 2007. A recent study commissioned by the European Commission has suggested that the number of markets subject to *ex ante* regulation should be reduced to four relevant markets for the period up to 2020. In addition, there are indications of a trend toward greater geographic segmentation of markets, with different 'remedies' (i.e.: regulatory obligations) applying in different geographical areas of the same, national market. More generally, as competition has developed, it has been accompanied by a lifting of retail price regulation. For example, retail price controls on BT's fixed line service were removed in the UK in 2006.

Dispute resolution

129. The UK regime for telecoms dispute resolution also has its genesis in the 2002 EU Regulatory Framework, which sets out a set of broadly-based requirements. In respect of inter-operator disputes, Article 20 of the Framework Directive[68] covers any dispute between undertakings providing communications services or networks in a Member State relating to obligations under the Framework Directive or any other Directive in the 2002 Package.[69]

[68] Directive 2002/21/EC of the European parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive). L 108/33.

[69] Such obligations might relate to conditions which can only be imposed on an operator who has been found to enjoy a position of significant market power (SMP). Equally, the dispute could relate to the general obligation under Article 4(1) of the Access Directive which requires all operators of communications networks to negotiate interconnection when so requested. The key elements of the procedure under Article 20 of the Framework Directive are as follows: National Regulatory Authorities (NRA) should generally resolve inter-operator disputes within four months of the dispute being referred to them; NRAs should have

130. Under the Communications Act 2003, Ofcom has a wide range of powers to resolve disputes including making a declaration setting out the rights of the parties, fixing terms and conditions between the parties, imposing an obligation on the parties to enter into terms and conditions fixed by Ofcom and ordering payments to reflect adjustments in charges. Ofcom also has the power to make costs awards to the parties and, exceptionally, to Ofcom itself. According to its latest guidelines the key features of Ofcom's approach[70] are the following:

- Ofcom's duty to resolve disputes relates only to disputes concerning existing obligations imposed on communications providers.
- Ofcom's duty to resolve disputes relating to network access has been replaced by a discretion to hear such disputes.
- In the case of a cross-border dispute, Ofcom must coordinate its activities with other National Regulatory Authorities (NRAs).
- Ofcom may seek an opinion from the Body of European Regulators for Electronic Communications (BEREC).

On 16 April 2012 Ofcom published a supplement to its guidelines to cover the resolution of postal services disputes. In particular, Ofcom explains that unlike the position under the Communications Act it has a broad discretion as to whether to accept a postal dispute for resolution.

131. Finally, as already noted, an important issue in telecommunications is how the regulatory framework, and in particular the approach to access regulation, affects the incentives for investment in new infrastructure, particularly infrastructure required for the transition from circuit switched copper networks to fibre-optic, all IP-based networks. The issue raises new regulatory challenges because regulation to date has tended to focus most heavily on networks that were already built, and investments sunk. Now regulation has to be shaped to reflect the impact it can have on the incentives for the development of new, large-scale network infrastructure, and in particular to address the question of how any future obligations relating to asset sharing, or mandatory unbundling, might affect the incentives for investment in next generation infrastructure.

3.4 Broadcasting

132. The broadcasting sector offers another case study that is potentially informative (for payment systems regulation) about the implications of different

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the option to refer the dispute to alternative means of dispute resolution such as mediation. If the dispute is so referred, either party may refer the dispute back to the NRA after 4 months if there is no resolution. The NRA should then decide on the dispute itself within four months of that referral to it; the NRA should have regard to the policy objectives in Article 8 of the Framework Directive, for example 'ensuring that users, including disabled users, derive maximum benefit in terms of choice, price and quality'; and the Article 20 procedure should not preclude a party from taking action before a court.

[70] Guidelines for handling regulatory disputes on 7 June 2011

regulatory approaches.[71] Infrastructure aspects of payment systems tend to share with broadcasting the characteristic of high fixed costs combined with low marginal costs of delivery. Electronic payment systems are distinguished from other forms of payment mechanism mainly in terms of their timeliness and the potential for interactivity with the other party. Similarly, timeliness is of importance in relation to particular types of broadcasting content such as news or sport. Developments in technology are shaping the nature of payment systems as they are in the broadcasting sector (e.g.: in terms of a shift away from one-way analogue transmission). Both sectors are a target for policy interventions that involve a consideration of public interest (non-economic) issues alongside or in combination with competition issues.

133. The EU Regulatory Framework does not adopt specific legal definitions for 'telecommunications', 'information technology' or 'media'. Rather, it is predicated on the principle that different technologies can be used to provide communications services. Accordingly, regulation seeks to be technologically neutral. This concept is reflected in the legal definitions in the Framework Directive,[72] but to date the regulatory regimes for telecoms and media have evolved in very different ways.

134. Translating the concept of technological neutrality into the payment systems context would have at least two implications for the design of regulatory regimes. First, the concept of a payment system should not depend on any specific form of platform or means of transmission. Second, the rights and obligations that apply to system providers should apply regardless of the underlying technology that they use, provided that they conform to the technology neutral definition

Boundary between regulation and competition law

135. As in other sectors, competition law interventions in the broadcasting sector have been targeted at the abuse of market power. Competition law and regulatory interventions have usually been aimed at abuse of dominance in the provision of content (such as sports or movies) where this is linked with dominance in retail distribution of broadcasting signals to consumers, but broadcasting provides

[71] For the purposes of this report we refer to broadcasting as the business of the production of (possibly interactive) information content and its delivery over telecommunications services

[72] Directive 2002/21/EC of the European parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive). L 108/33. (As amended by the Better Regulation Directive[72] to take account of technical developments and to resolve ambiguities since the original Framework Directive in 2002). Thus: '"*electronic communications network" means transmission systems and, where applicable, switching or routing equipment and other resources, including network elements which are not active, which permit the conveyance of signals by wire, radio, optical or other electromagnetic means, including satellite networks, fixed (circuit- and packet-switched, including Internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed*'. Article 2 Framework Directive as amended by the Better Regulation Directive.

illustrations of the potential problems that can arise at the boundary between competition law enforcement and use of sectoral powers, even when each might be seeking to address similar issues.

136. By way of example, it is useful to contrast two cases involving investigations into pricing and commercial practices of British Sky Broadcasting (BskyB).

- On 31 March 2010 Ofcom required British Sky Broadcasting (BSkyB) to offer Sky Sports 1 and Sky Sports 2 (and their High Definition versions) on a wholesale basis to retailers on other platforms, at wholesale prices set by Ofcom (WMO).[73] Ofcom used its sector regulatory powers under section 316 of the Communications Act. The Competition Appeal Tribunal (CAT) upheld appeals brought by BSkyB against the WMO.[74] The Supreme Court is considering an application from BSkyB for permission to appeal a Court of Appeal's judgment which found that the CAT's judgment was based on an incomplete set of conclusions. Meanwhile, Ofcom is considering a complaint from BT under the Competition Act 1998 which alleges that BSkyB has abused a dominant position in relation to negotiations over the supply of Sky Sports 1 and 2 for BT's YouView platform.

- In another case in 2010 Ofcom referred to the Competition Commission concerns relating to pay TV movie content and distribution. Ofcom considered that BSkyB, being the largest provider of pay TV services in the UK, had effective control over rights to premium movie content. The Competition Commission concluded that there were no features relating to the supply and acquisition of subscription pay TV movie rights in the first subscription pay TV window of the major studios or the wholesale supply and acquisition of packages including core premium movies channels which gave rise to an adverse effect on competition in any market.[75]

137. The interface between competition law and notions of the 'public interest' is also a key theme in the regulation of broadcasting. News Corporation's recent proposed acquisition of the shares in BSkyB that it does not already own illustrates the interaction between competition law and public interest assessment. The transaction was approved unconditionally by the European Commission at Phase I under the EU Merger Regulation (EUMR)[76] due to the absence of a significant impediment to effective competition in the relevant markets.[77] However, the

[73] Ofcom, Pay TV Statement, 31 March 2010.
[74] *British Sky Broadcasting Limited, Virgin Media, Inc., The Football Association Premier League Limited and British Telecommunications plc v Office of Communications* [2012] CAT 20.
[75] Competition Commission, Movies on pay TV market investigation, A report on the supply and acquisition of subscription pay TV movie rights and services, 2 August 2012.
[76] Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings, OJ L 24.
[77] Case No. COMP/M.5932 - *News Corporation/ BSkyB*, Commission decision of 21 December 2010.

European Commission observed that its decision was without prejudice to the assessment of the UK authorities on media plurality grounds. However, whether or not the concept of media plurality should introduce different considerations from those encompassed by competition law is far from clear: the standard notion of 'harm to consumers' has traditionally taken account of reductions in the *variety* of products or service on offer in a market, as well as on the prices and qualities of products.

3.5 Rail

138. The development of rail regulation may be illustrated through a comparison of the approaches in Great Britain and in the EU and the relationship between the two. The sector has a distinct combination of characteristics which have shaped the regulatory approaches adopted:

i. There are major monopoly elements in the sector, particularly the ownership of the large part of Britain's national rail infrastructure by Network Rail

ii. Retail competition is limited by the structure of franchised passenger services which are currently regulated by contracts with the Department for Transport

iii. The mixed use of private and public funding is more complex than in most sectors and industry revenues are still lower than costs

iv. There is a cross-subsidy from infrastructure to services resulting in a mismatch between the usual customer-supplier incentives in the sector

v. The passenger railway is subject to detailed specification and regulation where government and the regulator are relatively heavily involved in decision making. Thus, the industry's ability to make decisions independently and commercially is constrained more than in any other sector

vi. Complexity is reflected in the regulatory environment where there is a diversity of approaches to economic regulation and contractual management.

139. The regulatory environment for the rail sector is therefore particularly complex and differs greatly across the value chain. The nature of the regulatory approach tends to reflect the different degrees of public support and also the extent of monopoly power as indicated in Table 1 below.

Table 1: The regulatory environment in rail

Area	Approach to regulation
Supply chain	No ex ante regulation although have to comply with safety regulation
Network Rail	Economic regulation on the basis of licence
HS1	Economic regulation on the basis of a concession agreement and statute
ROSCos	Small amount of pro-market regulation via the code of practice put in place following the Competition Commission reference
Freight operators	No ex ante regulation
Franchised passenger train operators	Regulation by contract (franchise agreement)

Source: Office of Rail Regulation, 'ORR's long-term regulatory statement', July 2013, Figure 18

140. In the past decade the European Commission has sought to liberalise the EU rail transport sector. Although the timing and final form of the Fourth Package, which was introduced in 2013, is not yet settled a review of the four 'packages' to date illustrates some recurring themes that have counterparts in the way that the UK has sought to reform its own rail transport sector.

- Operational separation of infrastructure management and transport services: The First Railway Package (2001) required separation of infrastructure management and provision of transport services
- Integrated EU railway area: The Second Railway Package (2004) provided for the EU's accession to the international rail convention COTIF. In particular it provided for access to the entire EU rail network for international freight services (by 1 January 2006) and to all types of freight including domestic (by 1 January 2010).
- Competition in international rail passenger services: The Third Railway Package (2007) provided that railway undertakings must be granted access to the infrastructure to provide international passenger services in all Member States as of 1 January 2010.
- Removing barriers to new entry and enhanced unbundling: The Fourth Railway Package (published January 2013) takes EU railway liberalisation to a logical conclusion. The European Commission still believes that new entrants face problems in obtaining access to infrastructure and rail services which are owned or operated by an incumbent with a near national monopoly. Under the proposals the function of the infrastructure manager will be required to be separate from that of providing the train transport service to customers. This unbundling can be achieved through institutional separation or in a vertically

integrated company through the creation of internal barriers to ensure legal, financial and operational separation.

Multiple regulators

141. In addition to the EU dimension, the rail sector may be informative for payment systems regulation in that it offers a relatively extreme example of the difficulties of multiple regulators in circumstances where the different public bodies involved have different conflicting objectives. Rail safety is a highly politically sensitive issue – rail crashes tend to provoke disproportionate responses in comparison with other transport accidents – and so is the level of taxpayer funding. In practice, therefore, the influence of the economic regulator in shaping policy developments has been rather less than in other sectors. Nevertheless, within its relatively narrow confines, the regulator has sought to adopt a recognizable economic regulation approach: *"[r]egulation will continue to take a principled, proportionate, risk-based and efficient approach. If commercial relationships and the market are working well the role of regulation could be significantly reduced"*.[78]

3.6 Air Transport

142. Economic regulation in the UK air transport sector is chiefly focused on two areas of activity:

- Air traffic control, and
- Regulation of designated airports.

Air traffic control

143. Air traffic control has analogies to aspects of the operation of payment systems in that it provides co-ordination services within UK airspace to airlines (the service users), in co-operation with air traffic control operators in other jurisdictions. Thus, for example, the tracking of a particular flight is, at a certain point, 'handed over' from one air-traffic controller to another.

144. Unlike payment systems however, the service is fully monopolised within a designated area. This leaves some scope for competition in air-traffic control – an international flight that passes through a particular section of air space that is subject to an excessive charge could potentially fly round the offending block of space – but the potential is highly limited.

145. Air traffic control is therefore much more utility-like than payment systems in the degree of monopoly to be found in the provision of the service, although the

[78] Office of Rail Regulation, 'ORR's long-term regulatory statement', July 2013, section 5.

'naturalness' of the monopoly has less to do with economies of scale and scope and more to do with the costs of failures of co-ordination, in this case aircraft colliding with one another. In this it resembles the 'systems operations' aspects of electricity and gas systems: a failure to co-ordinate imposes costs that are disproportionately large in relation to the ordinary costs of doing business (e.g.s. the costs of an air crash, a power outage, or a gas explosion).

146. As a monopoly, NATS is subject to a price capping regime, but perhaps the major feature of potential interest for payment systems is its ownership structure. Air traffic control was originally a government provided service and from 1972 to 1992 was an integral part of the CAA, the sector regulator. In 1992 it was decided that there should be separation between service provision and regulation, and the service was re-organised as a Companies Act company in April 1996, although still wholly owned by the CAA.

147. The next step was a Public-Private Partnership for NATS, proposed in June 1998 and implemented in the Transport Act 2000. The Government chose the Airline Group, a consortium of seven airlines, as the preferred partner in March 2001 and the transaction was completed in July 2001 with the sale of 46% to the Airline Group (AG) and of 5% to NATS' staff. The Government retained the balance.

148. Consequent on the aviation industry downturn after 11 September 2001, NATS was in need of financial restructuring. In the event, this involved £130 million of additional investment (split between Government and LHR Airports Limited, part of BAA) to reduce borrowings. LHR Limited took a 4% shareholding, reducing the Airline Group's holding to 42%. In 2013, the airlines further reduced their collective ownership interest in NATS when a 49.9% interest in AG was sold to the UK University Superannuation Scheme (USS). Beneficial ownership of NATS is therefore now split among the Government, airlines, USS, BAA and smaller shareholders.

149. The size of the airline interest in NATS potentially gave rise to competition concerns, involving both vertical integration (airlines, air traffic control) and horizontal co-ordination (airlines coming together) issues, but was cleared on the facts by the European Commission.[79] The Commission decision and supporting reasoning will therefore provide some guidance to the PSR on any issues that might arise in connection with (horizontal) competing businesses coming together to take an ownership stake in the provision of a common and essential input for their activities.

[79] COMP/M.2315, 14 May 2001.

Airport regulation

150. Turning to airports, two aspects of the regulatory position might be of relevance to PSR issues:

- Given the existence of significant inter-airport competition, price controls have been focused on only four of the relatively large number of airports in the UK – Heathrow, Gatwick. Stansted and Manchester – albeit that collectively these airports account for the bulk of the market. Manchester was deregulated a few years ago, and this year the CAA announced the deregulation of Stansted, now owned by the Manchester Airport Group (MAG), which also owns East Midlands Airport and Bournemouth Airport, and is itself 64.5% owned by Manchester City Council and nine Greater Manchester borough councils. The pattern is therefore one of adjusting the degree of regulatory oversight to the level of market power of the airports, i.e. one size doesn't fit all at the level of implementation although, consistent with competition law, the principles applied are common.

- Airports serve different user groups – principally passengers and airlines – and are characterized by both network effects (e.g. an airport is more attractive to an airline if there are more connecting services) and cross-network effects (e.g. more airlines serving an airport with more routes makes the airport more attractive to a potential passenger). The analysis of such situations, in the modern jargon called two-sided markets or 'platforms', has been used by the CAA in analyzing inter-airport competition.

151. The first of these points is familiar from other regulatory contexts, most notably telecoms, but the second is a more pioneering aspect of the CAA's approach. One of the key aspects of the analysis is the effect of inter-platform/system/market competition on price structures. Thus, an airport's market power stems chiefly from its airside operations, not its retailing and ancillary activities (such as provision of car parks), yet the effect of competition is to cause *discounting* of (monopolistic) landing charges. The reason is obvious: more flights, mean more passengers, which increase local site values. (A similar pattern is familiar from the history of railways – land bought at strategic points along the planned line, ahead of its construction, increased in value once the line was built.) This economic effect is so great that there are examples of airports paying airlines to use their facilities (i.e. examples of *negative* charges).

152. The general points are that, (a) whilst a major airport like Stansted is not exactly next door to, say, Heathrow or Gatwick, network effects can exert strong downward pricing pressure on the prices of core activity (airside services to

airlines),[80] any (b) any notion that, in the relevant factual circumstances, competition can necessarily be expected to bring the structure of charges to users in line with the 'costs' of providing different services to different user groups is likely to be based upon a failure to appreciate the actual factual context.

3.7 Legal services

153. The last decade has seen a significant overhaul of the way in which the legal profession in England and Wales operates and is regulated. This includes important changes to the rules that govern the structures in which lawyers can operate, including the opening of up of certain reserved areas and activities in the legal profession to greater levels of competition, and allowing for the possibility of new non-lawyer owned or managed firms to provide legal services. Accompanying these changes has been a drastic re-organization of the regulatory architecture for the legal profession, including a splitting up of the advocacy and regulatory functions of the existing representative bodies for solicitors and barristers, and the establishment of a new co-regulatory structure in which regulatory responsibility is shared between professional regulatory bodies and a newly created statutory regulator of the legal profession (the Legal Services Board or LSB).

154. While at first sight the regulation of legal services and payment systems may not appear to be analogous, there are a number of similarities between the two contexts.

- First, historically in both settings there has been a heavy reliance on self-regulation of the activities of market participants. In the legal services context this involved the self-regulation of the profession by various representative bodies such as the Law Society and the Bar Council. Over time, however, as with the experience of payment services, there was increasing dissatisfaction with the operation of these self-regulatory mechanisms, and a particular concern common to both settings was that innovation may be impeded as a result of the self-regulatory governance structure.

- Second, a major task of the new statutory regulator for legal services has involved the supervision and oversight of the 'rule-books' that are used by the various professional regulatory bodies. There is an obvious parallel here with the role of the PSR in terms of oversight of the rule-books of the various payment systems.

- Third, the new statutory regulator (the LSB) was created with a range of eight specific objectives, two of which – promotion of competition and protection of

[80] See Starkie, D. and Yarrow, G, 2013. "Why airports can face price-elastic demands: margins, lumpiness and leveraged passenger losses" RPI Letters and Notes on Regulation, No. 2.4. for a more formal analysis.

consumers' interests – can unambiguously be said to require economic regulation as defined at the beginning of this Report. The front-line (self) regulatory bodies are required to pursue the same objectives. In the legal services case, therefore, we can say that the approach has, from the outset, been to bundle economic regulation with regulation for other purposes, such as ensuring access to justice and promoting the constitutional principle of the rule of law.

155. This is clearly different from the payment services regulation framework, which requires only that the PSR have regard to matters such as financial safety and systemic risk, and inconsistent with the recommendations of the House of Lords Select Committee noted elsewhere in this Report. Unsurprisingly perhaps, although the legal reforms have been in place for a relatively short period of time, emerging evidence suggests that there may be a number of significant problems with the new regulatory and governance framework, and that further changes may be necessary.

156. Among the issues that were identified in a recent Ministry of Justice call for evidence on the workings of the new system, were claims that the wide range of objectives within the LSBs remit had created confusion as to how the different objectives are to be balanced. The Bar Standards Board – responsible for the front-line regulation of Barristers – voiced concerns about how the different regulatory objectives were being balanced in practice, and in particular, about what it considered to be an undue emphasis on the objective relating to the protection and promotion of the interests of consumers.[81] In contrast, a Regulatory Policy Institute study of solicitors' regulation concluded that *too little* emphasis was being placed on the consumer protection and competition objectives.[82] One possible explanation for this divergence of views is that it reflects and confirms the tendency, identified in section 2 above, for self-regulatory bodies to favour the interests of producers over consumers.

157. More generally, the Ministry of Justice review indicated that there was an apparent consensus among the different regulatory bodies that things had not worked out as anticipated, with the new statutorily created regulatory oversight body, the LSB, being particularly critical of the new arrangements, noting that that the system of regulation was *'over-engineered'* and *'exceptionally complex'*, and that there was a widespread resistance to the market liberalisation initiatives that have been introduced, which were seen as adding costs rather than removing burdens. The review also elicited submissions to the effect that the arrangements whereby the front-line regulatory bodies retain ties to professional organisations has maintained *'a legacy of over-detailed rules and cultural biases'* in relation to

[81] See Bar Standards Board, 2013. *Bar Standards Board submission to Ministry of Justice Legal Services Review Call for Evidence*. 17 September 2013

[82] Regulatory Policy Institute, 2013. "Understanding barriers to entry, exit and changes to the structure of regulated legal firms" December 2013.

issues such as controls over entry, and regulatory interference in matters which should have been left to commercial entities.

158. The Bar Standards Board (BSB) was also critical of what it considered to be the overly prescriptive and detailed approach that the LSB had adopted, and took the view that the LSB had extended and over-reached its statutory role in certain areas and activities. Similarly, The Law Society – the representative body for solicitors – identified what it believed to be a number of problems with the new regulatory arrangements.[83] In particular, it submitted that the responsibilities and accountabilities for regulation and oversight are unclear; that regulation has become too detached from the profession and too expensive; and that the regulatory arrangements are perceived internationally to have compromised the independence of the legal profession, which, in its view, was affecting on the attractiveness and competitiveness of the legal services markets in England and Wales.

159. The experience of the impacts of the changes introduced under the new regulatory framework for legal services is potentially instructive for the PSR for a number of reasons, including that: (a) it involved the creation of a new statutory regulator in a context where historically self-regulation had been relied on; (b) as described above, a major task of the LSB involved the supervision and oversight of 'rule-books' of professional regulators; and (c) unlike the utilities, there are no natural monopoly issues in the sector, and the focus of regulation is not specifically on prices. On the other hand, the PSR has a much more streamlined and coherent set of objectives and does not face the complexities arising from a division of responsibilities between front-line (self) regulatory bodies and a statutory oversight regulator, all sharing the same set of objectives but each (in practice) effectively able to vary the weights to be attached to each of the objectives.

3.8 Australian payment systems regulation

160. Regulation of the Australian payments system was dramatically reformed in the 1990s and the Australian approach and experience may be of interest to the PSR. Under the relevant legislation, the Payments Systems Board (PSB) of the Reserve Bank is responsible for the payments systems,[84] and has powers to:

- Designate a payment system as being subject to regulation.
- Determine an access regime, including the rules for participation in that system.
- Set standards to apply to participants in the system.

[83] See The Law Society, 2013. *The Law Society's Response to The Ministry of Justice's Call for Evidence on the regulation of legal services in England and Wales*. 2 September 2013.
[84] There is delineation between the Payments System Board (PSB), which is responsible for determination of the Bank's payments system policy, and the Reserve Bank Board, which has responsibility for the Bank's monetary and banking policies and all other policies except for payments system policy.

- Make directions to direct participants in a designated payment system to comply with a standard or access regime.
- Arbitrate in disputes in a payment system on matters relating to access, financial safety, competitiveness and systemic risk, if the parties concerned agree to such an arbitration.
- In addition, the RBA has extensive information gathering powers from payment systems or individual participants.

161. In approaching the issue of designation of a payment system, the PSB must form an opinion that it would be in the public interest to designate a system, and in forming this opinion the PSB must have regard to the desirability of payment systems being: financially safe for use by participants; efficient and competitive; and not materially causing or contributing to increased risk to the financial system.[85]

162. Three aspects of the Australian approach and experience of reforms to the regulation of payment systems are worthy of comment. The first is in relation to innovation. A 2012 strategic review of innovation in payment systems concluded that there were barriers to cooperative innovation and that the removal of some of these barriers could bring significant public benefits. Specifically, it proposed that the PSB be responsible for setting out the strategic objectives for the payments system from time to time (roughly every three years), taking account of the views of all stakeholders. In general terms, the industry would then be responsible for determining how those objectives could be met most efficiently. We note that this approach has some similarities with the relatively new Significant Code Review process in the UK energy sector (see above).

163. Another reform aimed at promoting innovation was the establishment of a more direct dialogue between the PSB and the industry, which could be facilitated through the establishment of an 'enhanced' coordination body that would build on the existing self-regulatory structure.

164. The second aspect of the Australian approach relates to the changes to payment card schemes that were introduced in 2004. These reforms, which sought to remedy the perceived problem that credit card transactions were more attractive to users than debit card transactions, despite the latter being less expensive, included: the setting of the interchange fees for Visa, MasterCard, and the major debit cards; allowing surcharging for card transactions; the withdrawal of the 'honour-all-cards' and 'no-steering' rules; and various changes to the access arrangements for four-party schemes. Similar types of changes are also currently being proposed in the European Commission (see discussion in section 3.9 below).

[85] See Section 8 of Payment Systems (Regulation) Act 1998.

165. Evidence on the effects of these reforms is subject to conflicting interpretation, most strikingly between the RBA's assessment of the impacts of the reforms and the assessments contained in external reviews and academic studies. A 2014 review of the impacts of changes to the payment cards access regimes concluded that the reforms introduced to encourage greater membership of payment card schemes (both credit and debit) had not been effective, largely because of legal and regulatory difficulties associated with new members being recognised as Authorised Deposit Taking Institutions and regulated by the Australian Prudential Regulatory Authority on that basis. Reforms to the access regime have now been proposed which include the imposition of some constraints on the payment card schemes through the PSB's power to alter the Access Regimes for the each scheme.

166. A third and final aspect of the Australian approach that is potentially relevant is the relationship between the PSB and other entities. As noted above, the PSB is a part of, but separate from, the RBA. According to the PSB, the structure established, which involves a delineation of responsibilities between the PSB and the RBA, means that instances of conflict over policies should 'be rare'. However, should a conflict arise the view of the Reserve Bank Board prevails to the extent that there is any inconsistency in policy. In circumstances where there is disagreement between the Boards (of the PSB and the RBA) on questions of jurisdiction or inconsistency of policy such disagreements are to be resolved by the Governor, who chairs both Boards.

3.9 The EU approach to payment systems

167. In 2013 the European Commission published proposals for a regulation on interchange fees for card-based payment transactions (Regulation) and for a new payment services directive (PSD2). The proposed price caps reflect the levels that emerged from the competition law cases involving MasterCard and Visa. Although the detail of these measures is beyond the scope of this report it is worth considering their interaction with any measures that the PSR may adopt to foster competition and innovation in the sector.

168. The proposed Regulation establishes uniform technical and business requirements for payment card transactions within the EU where both the payer's and the payee's service provider are established in the EU. Within two months of entry into force of the regulation:

- payment services providers shall not offer or request for cross-border credit transactions a per transaction interchange fee (or other agreed remuneration with equivalent effect) in excess of 0.2 per cent of the value of the transaction; and
- payment services providers shall not offer or request for cross-border debit transactions a per-transaction interchange fee (or other agreed remuneration

with equivalent effect) in excess of 0.3 per cent of the value of the transaction.

169. The proposed Regulation sets out permitted business rules that will apply to card transactions in a number of areas. In particular:

- the regulation prohibits territorial restrictions in the EU in licensing agreements for issuing payment cards or acquiring payment card transactions and in four party scheme rules
- payment card schemes must be separated from processing entities, and entities must not discriminate between their shareholders and subsidiaries and users of the schemes
- an issuer must not be prevented from co-badging different brands of payment instruments on a card or electronic device
- Honour all Cards rules will be limited so that payment schemes and payment services providers must not oblige payees accepting payment instruments issued by one payment service to also accept other payments instruments of the same brand except where they are subject to the same regulated interchange fee.
- Member States must designate competent authorities that are empowered to enforce the Regulation.

170. The 2007 Payment Services Directive established a harmonised legal framework across the EU to ensure that payments could be made more easily and quickly. In January 2012 the Commission issued a Green Paper consultation "Towards an integrated European market for card, internet and mobile payments"[86] as part of its review of the payments environment and whether this promotes competition, innovation and security. The Commission has concluded that, while significant advances had been made in integrating EU retail payments markets, further incremental measures were needed to ensure appropriate market access conditions and protections for consumers.[87]

171. The aim is that the combined effect of the proposed Regulation on inter-change fees and PSD2 is to further the creation of an EU-wide single market for payments. In particular it is claimed that the Regulation on inter-change fees would provide legal certainty on the permissible level of fees in consumer debit and credit cards. A theme from the EU experience when considering competition in payment systems is, as reflected in the view held by the Commission, that *ex post*

[86] European Commission Green Paper – Towards an integrated European market for card, internet and mobile payments, COM(2011)941, 11 January 2012.

[87] These include: refund rights for consumers, a requirement on banks and other payment services providers to increase the security of online transactions, and better protection for consumers against fraud. In addition, certain provisions of the PSD are to be modernised to take account of emerging types of payment services such as payment initiation in the context of e-commerce.

intervention under competition law is insufficient to ensure efficient competitive and innovative payments systems. However, in this context, it should be noted that the Commission's main target in the Regulation on interchange fees is ensuring harmonisation in fees levels across the EU Member States (i.e., a single market goal) and the views of individual NRAs on this issue (harmonisation of fee levels) are divergent.[88]

172. There is an open question as to whether the caps on interchange fees will lead banks to attempt to increase the fees they charge to cardholders. In response to such concerns, the Commission argues that cardholders could be expected to see the increase in fees and switch providers if necessary. The Commission further claims that bank revenues may not be expected to decrease overall on the assumption that the lower fees will increase the number of transactions which can be expected to offset the decrease in per transaction revenue.

173. It is likely that the PSR will become fully operational before there is any European regulation in this area. In these circumstances the PSR will no doubt want to have regard to the development of the Commission's proposals to ensure that its approach is compatible with such proposals and avoids conflicts.

3.10 Competition law

174. Markets for network-based products and services present particular challenges for both competition and competition law. Issues of network sharing, access to the infrastructure of dominant players and the transition from monopolies to competitive markets have all been the subject of competition law interventions. Further, each new generation of technologies poses the problem of how to apply competition law in markets which are 'born competitive', but where there is a risk of distortion of competition as a result of one party gaining an innovation lead. The following discusses a number of the pervasive and evolving issues concerning competition in network industries that may be informative for the PSR.

Standards and standard setting

175. Agreements on standards have as their main objective the definition of technical or quality requirements with which current or future production processes, methods or products must comply, for example to ensure compatibility between products that work together. Where participation in standard setting is unrestricted and transparent, standardisation agreements as defined above, which set no obligation to comply with the standard or which are part of a wider agreement to ensure compatibility of products, are not generally viewed as giving

[88] When the Commission issued its initial consultation on a legislative proposal for multi-lateral interchange fees views were divided. Some authorities favoured a ban on, or mandated reductions in the rates of, MIFs: others took the view that competition law was sufficient and that MIFs were necessary to provide incentives for the issue of payment cards.

rise to restrictions of competition. This normally applies to standards adopted by recognised standards bodies but has counterparts in the case of payment systems where individual operators may cooperate to ensure that users on different networks can connect with one another. Two broad categories of industry standardisation may be identified:

- *De facto* market leadership may result in a standard which, although not mandatory, becomes the industry practice. In practice, *de facto* standards may result from 'tipping' effects,[89] or the ownership of IPR, or leveraging of market power.
- Alternatively, collective standards may be set by agreement between industry participants.

176. In relation to payment systems, we interpret the concept of standards to refer loosely to both of the above situations arising in the context of ownership or operation of a payment system. The Commission's Horizontal Cooperation Guidelines identify two forms of standards that may invite anti-trust scrutiny.

- Standardisation: Standardisation agreements are agreements whose primary objective is the definition of technical or quality requirements with which current or future products, production processes, services or methods may comply. The Horizontal Cooperation Guidelines apply to standard setting in the form of product certification as well as to technology standard setting.
- Standard terms: Some industries use standard terms and conditions of sale or purchase developed by a trade association, or directly by competing companies. The Horizontal Cooperation Guidelines cover such standard terms to the extent that they establish standard conditions of sale or purchase of goods or services between competitors and consumers for substitute products.

177. In addition, ownership or control of standards can facilitate the creation and abuse of market power. Examples of competition law intervention in the standard setting arena of potential relevance to payments systems are provided in Table 2 below.

178. The level of competition law risk (whether in relation to Chapter I of the Competition Act 1998/ Article 101 TFEU or Chapter II/ Article 102) depends particularly on the interplay between:

- the interests of participants in ensuring that their downstream operations are profitable (i.e. there may be less of an incentive to license on unfair terms if the participant also has to sign up to similar terms with other parties which will affect its costs for other inputs to its downstream products incorporating the standard);

[89] The increase in a firm's market power caused by indirect network effects.

- patents owned by other companies (whether parties or not) which may constrain the risk of an appreciable restriction of competition or individual/ collective dominance;
- competition from rival standards;
- the declining value of the underlying technology;
- downstream product market competition.

Table 2: Standard setting and competition law

E-payments

The European Payments Council (EPC) is an organisation that promotes the creation of an integrated payments market through its project called the Single European Payments Area (SEPA). In September 2011 the Commission announced that it had initiated proceedings to investigate the procedures for the standardisation of e-payments through EPC. The Commission formally closed the case in June 2013 following the withdrawal of a complaint by Sofort AG. EPC declared that it had decided to cease its development of the e-payments framework and other equivalent standardisation measures. The Commission stated that it would continue to monitor this market closely in cooperation with the national authorities.

Source: Commission press releases IP/11/1076, Antitrust: Commission opens investigation in e-payment market, 26 September 2011

IACS

In January 2008, the Commission conducted dawn raids at the premises of providers of ship classification services and an association of providers of those services (International Association of Classification Societies (IACS)). The Commission raised concerns under Article 101 relating to IACS's decisions on the criteria and procedures relating to membership and the accessibility of IACS's resolutions and technical documents. On 14 October 2009 the Commission announced that it had accepted commitments under Article 9 of Regulation 1/2003. IACS agreed to (1) establish objective and transparent membership criteria and guidance and apply them in a uniform and non-discriminatory manner; (2) ensure that classification societies that are not IACS members are able to take part in IACS working groups; (3) ensure access to non-members of all current and future resolutions; (4) establish an independent appeal board to settle disputes and membership. The commitments are to remain in effect for five years.

Source: Commission press release IP/09/1513, Case COMP/39.416 - Commission decision of 14 October 2009

Joint ventures and network sharing

179. Major infrastructure projects have been a source of attempts by independent market players to pursue different means of collaboration falling short of structural consolidation. While these forms of cooperation raise their own competition issues, the problems may be viewed as less than those associated with full scale mergers. An example is the online travel agency, Opodo. This was a joint venture by nine of Europe's largest travel agents offering internet sales, hotel bookings, car hire and insurance. The Commission took into account a package of commitments offered by the parties and issued a 'negative clearance' type of comfort letter. In order to allay concerns that the airlines might use the joint venture as a vehicle for collusion the parties put in place undertakings that the shareholders would not get access to commercially sensitive information about each other. In order to address the concern that the airlines would favour their own operations to the detriment of other travel agents each undertook not to discriminate without objective justification between Opodo and other travel agents.

180. The competition concerns, and the undertakings that were accepted to resolve them, have some parallels in a payment systems context. The interests of the major banks in the various payment systems have been identified as a potential competition concern to the extent that the relevant joint venture may provide a forum for anti-competitive collusion. Another related concern is that the owner-banks have limited incentive to encourage development of rival payment systems and might use their strong positions in existing systems and related banking markets to foreclose new systems and services.

Competition law investigations into interchange fees

181. Certain on-going competition law proceedings at the EU and national level are of relevance to the PSR in considering how to use its own competition law powers in the sector. On 19 December 2007 the European Commission issued an infringement decision against MasterCard in relation to its cross-border multilateral interchange fees (MIF). The European Commission found that MasterCard had infringed Article 101 TFEU in that the MIF arrangements restricted competition between acquiring banks and increased the costs of accepting cards without leading to efficiencies within the meaning of Article 101(3) TFEU. Judgment of the Court of Justice in relation to MasterCard's appeal against the General Court's judgment is awaited.

182. Meanwhile the Commission has opened new proceedings against MasterCard which expand on the Commission's concerns (in particular in relation to the Honour All Cards Rule). In a separate investigation on 26 February 2014, the Commission announced that it has decided, under Article 9 of Regulation 1/2003, to make legally binding the commitments offered by Visa Europe to address concerns about its inter-bank fees.

183. These investigations by the Commission must also be seen in the context of the investigations of the OFT concerning UK domestic point-of-sale transactions using MasterCard and Visa cards. It is unlikely that the CMA will proceed further with these cases before the Court of Justice hands down its own judgment in the MasterCard case. Nevertheless, these pending cases are a reminder that issues around the need for action to reduce MIFs and the appropriateness or otherwise of competition law interventions are not new issues, and also that they are as yet unsettled.

Sector and market inquiries in competition law

184. The EU and UK competition authorities are increasingly carrying out sector or market investigations (industry wide probes where there are concerns that markets may not be working effectively but where the failure is not related to wrongdoing by individual companies or groups of companies). The PSR will similarly be able to conduct market studies, for example to consider the extent to which participation in payment systems used to provide services in the UK has, or may have, adverse effects on competition and consumers. It may then refer the market to the CMA, which has the power to carry out a market investigation and, if necessary, use its powers under Part 4 of the Enterprise Act to remedy any distortion or restriction of competition.

185. For the European Commission to launch a sector inquiry, there must be a material impact on trade between Member States. Owing to the pan-European significance of payment systems it cannot be ruled out that the sector could face scrutiny by the European Commission as well as the CMA/ FCA or even the PSR.

4. ASSESSMENT AND REFLECTIONS

186. In this final section of the Report we briefly set out what we consider to be some of the main insights that can be drawn from the preceding discussion of the experiences of applying different regulatory approaches in other economic sectors. Consistent with our general approach in this report, the approach is necessarily a selective one with our attention focussed only on those aspects that appear to be of most relevance in the payment systems context, and specifically, to the PSR in developing its own regulatory approach.

4.1 The context is unique, but many of the issues are familiar

187. A first, obvious insight is that although there are distinctive features of the payments systems context and of the problems to which regulatory policy is directed, the issues confronting the PSR in developing its regulatory approach have significant analogues in other regulatory experiences. Indeed, if economic regulation in payment systems is characterised in terms of measures directed at preventing or mitigating the harmful effects of control of rule-books by or on behalf of a particular interest group, then the general task of the PSR is not dissimilar to that which confronts other economic regulators.

188. This is not to imply that there are not important differences in terms of regulatory focus, with issues of access arrangements and innovation of particular importance in payment systems, and issues such as price regulation less significant than in utility contexts (although the issue has arisen in the context of interchange fees in card systems). The general point is that all economic systems can be viewed as comprising institutions (i.e.: rules, both formal and informal) and the central tasks of regulators of these systems are concerned with governance of designated parts of these general 'rule-books'.

189. Our view, therefore, is that there may be merit in the PSR thinking about the first steps in developing regulatory strategy and culture (i.e.: its own informal rule-book governing its way of going about things) in the following manner:

- Consistent with guidelines on regulatory impact assessment, first identify the specific issues to be addressed in the specific economic and market context. This is a necessarily intensive exercise in fact finding, but it is an important component of the rationale for specialist economic regulators (who would not be necessary if all contexts were alike).

- Consistent with advice to young students of mathematics, ask "have we seen a problem like this before?" It is at this point that references to wider regulatory histories and experiences can potentially be drawn upon, not as ready-made or

off-the-shelf 'solutions' to the specific problems identified, but rather as *heuristics* that will enable the payments-system-specific issues to be better understood and addressed.

- Remember that (i) *"many of the problems associated with regulation lie in what is being regulated"* and (ii) what is being regulated is, in the technical jargon, partly *endogenous* – today's decisions will influence what it is that is to be regulated tomorrow. Careful avoidance of the creation of unnecessary problems tomorrow is an important aspect of regulatory know-how.

4.2 All practical approaches to regulation are hybrids: the issue is how to find the right balance for the specific economic and market context

190. As should be clear from the above discussion, the broad regulatory approaches adopted in practice tend to contain mixes of alternative options along the various dimensions of choice that are available. Thus, we observe:

- Different combinations of *ex ante* and *ex post* elements, and different degrees of reliance on prescriptive formal rules and on general standards of conduct (do not harm the competitive process, do not harm service users or end consumers of services).

- A ubiquitous reliance on co-regulatory approaches to market governance issues in economic regulation (i.e.: avoidance of pure self-regulation and of pure statutory regulation), if only in recognition of the fact that economic institutions themselves comprise both formal and informal (market and commercial cultures) 'rules of the game'.

- Notwithstanding the associated difficulties, multiple regulators and multiple objectives, including mixes of economic regulation and other types of regulation, are ubiquitous: no regulator is an island. Even the PSR, which has about as clear-cut a set of primary objectives as can reasonably be expected, must have regard to other issues and work alongside other regulators, most notably the Bank of England.

191. Comparative experiences indicate that regulators seek to find 'balances' among the choices that are available that appear to them to be most appropriate in the particular circumstances that they face, albeit that their various searches have met with varying levels of success and failure. The PSR's task is no different, although the circumstances are. Thus the strategic choices can be expected to be affected by context-specific facts such as (i) whilst payment systems are not naturally monopolistic and inter-system (i.e.: inter-rule book) competition, including international competition, is feasible, the cross-system presence and influence of the

major banks in system governance raises a different type of market power issue, and (ii) the influence of the Bank of England in payment system issues.

192. Our general sense of the situation is that, given its primary objectives and its concurrent competition (EU as well as UK) law powers, the natural starting point for thinking about the PSR's regulatory strategy lies toward the *ex post, standards-based* end of the range. In respect of governance of systems of rules, this suggests an initial focus on assessment of the *scope* of the type of market power which is associated with any potential undue influence of one or more parties on relevant rule-books, and of the *effects* of that type of market power. *Ex ante* considerations may then come into play when considering how to address any significant problems that are identified. For example, the role of the regulator in *rule-change* (i.e. code modifications) in the energy sector, which goes beyond a pure *ex post* approach, shows the kind of adaptation that is feasible.

4.3 Market power and innovation

193. As discussed, the existence of substantial market power can be expected to have negative implications for innovation. The problem is therefore common to more or less all economic regulators, although the more specific elevation of the promotion of innovation into the PSR's objectives gives it added priority in the payment systems context.

194. In this area, probably the only general insight from comparative experience is that promotion of competition, where feasible, is much the most effective way of promoting innovation. Where competition is not feasible, there are no very compelling alternatives to be found in regulatory practice in other contexts.

195. In the absence of effective competition, there can be a temptation for the regulator to 'take the reins' in respect of innovation, and to set out various strategic visions for an industry or sector and mandate their delivery. These visions are, however, the visions of another monopolist (the regulator), and the underlying information and incentive issues associated with monopoly or substantial market do not disappear simply because the monopolist is a public body with ostensibly good intentions. Regulation can easily impede, rather than facilitate, innovation and technological change, even in sectors where it can call on the assistance of competitive forces.[90]

[90] Crew and Kleindorfer (2012) argue, for example that *"the role of regulation has been to follow and perhaps slow down the impact of technological change in telecommunications."* See also Hausman and Taylor (2012), argue that the 'misguided efforts' of regulators to bring about a particular vision of competition in the telecommunications markets has delayed innovations, misled investors and cost consumers billions of dollars. See: Crew, M.A and P.R. Kleindorfer, 2012. "Regulatory economics and the journal of regulatory economics: a 30-year retrospective". *Journal of Regulatory Economics.* 41: 1-18; and Hausman, J.A. and W.E. Taylor., 2012.

196. Recognising that the PSR has a specific objective to promote the development of, and innovation in, payment systems we nevertheless are of the view that this is an area where comparative experience from other regulated sectors suggests that the PSR should tread carefully. One potential way of proceeding might be simply to give its approach to competition issues an additional emphasis on: (a) identifying those areas where competition is weak and this is reducing incentives for innovation; or (b) testing for the existence of specific restrictions in rule-books that might serve to reduce opportunities for beneficial innovation. This would be a good thing in itself, since much competition law practice is influenced by an unduly static approach to economic issues drawn from rather dry economic textbooks that tend to abstract from the existence of uncertainty and change, as well as from the existence of economic institutions themselves. It might be described as a 'poking and prodding' strategy, consistent with competition law principles but going beyond what all-purpose competition authorities are generally doing for want of resources to acquire sufficient, market-specific knowledge.

4.4 Achieving regulatory certainty in changing circumstances

197. The PSR is faced with the task of developing regulatory arrangements in a context where there is the potential for rapid and significant technological change and unexpected developments in the market. As noted in section 2, this presents a challenge in terms of balancing stability and predictability in regulatory arrangements with adaptation to changes in the economic environment where necessary.

198. A particular manifestation of this challenge may be in regard to any access arrangements that the PSR requires of payment systems. While a given set of access arrangements might be well-suited to the current major payment systems, they may not be applicable to newly emerging payment systems which adopt different business models and interact with users in a different way.

199. The general point is that it is generally unwise to build regulatory approaches only around existing business models. The effect of doing so may be both to impede future innovations and to lead to 'stranded regulation'. Although not discussed in this report, there are many examples in regulatory history from around the world in which unproductive, symbiotic relationships have developed between regulators and major incumbent businesses in which there has developed a 'stable' way of doing things that has had the unfortunate effect of hindering, rather than facilitating, innovation and progress.

"Telecommunications in the US: From Regulation to Competition (Almost)." *Review of Industrial Organization*. Forthcoming.

200. The concept of 'technological neutrality' is now well understood in regulation, although rarely implemented in practice (see the telecoms and energy sectors), and the PSR might consider introducing the notion of 'business-model-neutrality', at least as a reference point in thinking about issues and problems. Specifically, following on from the innovation reasoning, it might be asked of a specific feature of payment system arrangements: "does this feature tend to foreclose possibilities for the development of potentially value-creating business models, having due regard to financial stability and systemic risk issues when assessing 'value'?"

4.5 Proportionality

201. Proportionality is one of the governing principles of the 'better regulation agenda' pursued by successive governments, but it is much easier to articulate as a principle than it is to put into practice. There is a well-known phenomenon in which regulatory measures to address one issue or problem give rise to some adverse, unintended consequences, which in turn give rise to further intervention to deal with those consequences, further unintended consequences, and further interventions. Whilst it is possible to conceive of circumstances in which, at each step of the way, the measures taken are proportionate to the measures addressed, the piecemeal nature of the process means that the effects of later interventions on the effectiveness of earlier measures is not fully assessed, and the cumulative regulation becomes disproportionate in nature.

202. Occasional, more holistic assessments are a possible counter-weight to such tendencies (see above on the Significant Code Reviews in the energy sector), and the PSR will be able to call upon both its own market studies and market investigations conducted by the CMA for this purpose. It is crucial, however, that the use of such options encompasses study or investigation of *the effects of regulation* as well as the effects of other market features that may be perceived as potentially problematic. By seeing the options in this light, the PSR would be contributing in an innovative way to better regulatory practice, since most regulators have tended to be very defensive on this point and have tended to want such studies and investigations to be sharply focused on potential 'market failures' and to be directed away from potential 'regulatory failures' (e.g.: disproportionate regulation).

203. There is another, less considered, dimension of proportionality that we think may be of particular significance in the payment systems context, and this is to do with the question of *regulatory design* raised earlier in this Report. In co-regulatory contexts, it is important that the parties involved have a clear sense of their own responsibilities and of *the limits of their responsibilities*, and that the relevant boundaries are stable over time. Disproportionate regulation can be associated with a crossing of those boundaries and give rise to uncertainties as to where the new boundaries now lie and as to where they may lie in the future. Since such regulatory 'creep' (it is rarely a full-scale invasion) amounts in effect to a violation of previous

commitments in a co-regulatory structure, it also tends to reduce trust and undermine reputation. These various effects are all inimical to effective regulation and they point again to the potential benefits of grafting some *ex ante* elements on to what may be a predominantly *ex post* regulatory approach in the form of commitments to things the regulator won't do, save possibly in the face of manifestly clear and present harms.

4.6 Coherence: harmonising sector-specific economic regulation with competition law and other dimensions of regulation

204. A final assessment point, which we have touched on elsewhere in this Report, but is worthy of repetition given its importance, relates to the need to ensure that the PSR's approach and strategy are coherent and consistent with other regulatory frameworks that apply to the sector. One aspect of this involves ensuring that the sectoral regulatory approach is consistent with general competition law principles. Indeed, given the nature of the PSR's objectives and given that the main components of competition law are derived from the European Treaty[91], it might even be said that the sectoral approach should *flow from the Treaty principles* (roughly, do not use market power to harm the competitive process or to harm consumers/customers). As noted in section 3, some insights might be drawn from the regulatory framework that is applied in telecommunications, which expressly uses concepts and approaches that have been developed under EU competition law. We think that the PSR should encounter few external obstacles to developing its approach in this way.

205. Problems of achieving coherence with regulators pursuing objectives other than those that are closely connected with market power issues are, however, likely to prove more difficult. The PSR is explicitly required to have regard to some of these other goals of public policy, but for other parts of government they are of more central significance. Thus, for example, if the PSR were to conclude that aspects of current settlement procedures and practices could be improved in ways that would foster innovation, competition and the interests of service users and end consumers, any progress would necessarily involve co-operation with the Bank of England.

206. There is, unfortunately, no 'invisible hand' that serves to co-ordinate the detailed actions of different parts of government: it is more a case of constant effort, engagement and dialogue.

[91] Whether in relation to the application of Article 101/102 TFEU or the equivalent UK domestic provisions under Chapter I/II of the Competition Act 1998.

ANNEX – STAKEHOLDER EVENT

A.1 The context

207. On 28 May 2014, as part of the more general process of PSR consultation, the RPI organised a workshop for parties with an interest in the payments systems sector ('stakeholders'). Participants included representatives from payment systems operators, payment systems infrastructure providers and payment services providers. The purpose was to share perspectives and gather views in a number of key areas of relevance to this Report, with a focus on how similar issues have been dealt with in other regulatory contexts. The following broad topics were covered:

a. Session 1: General choices in regulatory strategy
b. Session II: Governance and regulation or supervision of 'rule books'
c. Session III: Access and entry
d. Session IV: Other aspects of the regulatory approach including competition

208. The following are the high level themes that emerged from the meeting and that seem of potential relevance to the PSR's future regulatory approach.

A.2 A need for clarity of definition of the area/activities being regulated

209. A key theme was the importance of defining clearly the area or activities that is/are subject to regulation. It was put to us that the term 'payment systems' does not correlate with a distinct category of market participants so raises a question about how to define the parameters of regulation. Underlying this observation was a concern that if the remit of the PSR is not drawn with clarity this could result in it exceeding its mandate.

210. We noted that the task of identifying the activities that are to be subject to regulation and where similar functions can be served by different technologies or systems is not unique to payment systems. For example, the communications sector has grappled with this issue in the case of the EU Regulatory Framework.

211. Related to the issue of defining the category of activities that are subject to regulation is market definition in an economics sense. Market definition underpins the analytical assessment of market power and, in some other regulatory contexts such as telecommunications, is relevant in terms of periodically identifying which operators may be subject to ex ante conditions on conduct. One stakeholder offered the view that a 'one size fits all' approach to regulation was not always appropriate and it may be necessary to apply different approaches depending on the degree of market power that is enjoyed by a particular entity in relation to an economic activity.

A.3 Relevance of the experience in other regulatory contexts

212. A number of stakeholders questioned the relevance of approaches in other sectors, and whether there was any meaningful read-across to payment systems. They argued for an approach that was anchored in the specifics of the industry rather than 'text book economics'. Against this it was put to stakeholders that the focus of the project was at a foundational level; to identify relevant issues and tradeoffs, and to explore slightly different ways of looking at issues drawing on the experience of other regulated sectors and activities.

213. When drawing on experiences from other contexts, a participating lawyer suggested that the PSR should avoid the model in legal services. The lawyer did not consider the legal services regime to be 'fit for purpose' in the sense that there is an overarching regulator which is 'not speaking to, not being spoken to' by the various interested bodies. In this case, something *could* be learned from experience in other sectors in terms of how not to approach things.

214. Other views on the issue of the relevance of learning from other sectors were more mixed and nuanced. In particular, a number of stakeholders endorsed the approach of looking at utilities regulation citing the implications for the clearing and settlements area in particular.

A.4 Interaction with other regulation and the EU regime

215. An omnipresent theme was the importance attached by stakeholders to the need to take a holistic view by looking at other legislation and regulation in the area of payment systems such as the Payment Services Directive (PSD) and SEPA.

216. There was no disagreement on this in relation to the forward-looking tasks of the PSR, but we emphasised that the scope of this particular project was to take a wider scan of the horizon and look beyond the immediate and obvious considerations that the PSR would necessarily have to bear in mind when determining its approach.

217. Related to the issue of other regulatory approaches was the question of how to determine the right balance between the role of industry and the PSR and what was the policy role for the PSR against a background of European influences. In relation to the substantive issue of the effects of EU legislation on the PSR's approach, one stakeholder expressed the view that regulation from Europe is 'going to heavily influence it [the PSR's approach]'. Another believed that the constraints imposed by European regulation are already 'massive' and that this left little role for the PSR to play in determining its own approach, whilst a third thought that *in the areas where there was EU regulation* 'the scope of discretion of the PSR is very limited'. Again, however, there was some variety in the views that were expressed, with one

participant noting that the PSR is actually leading the way and creating an example of a European model for others to follow, rather than simply replicating something else that already exists.

A.5 Interaction between economic regulation and conduct regulation

218. A question was raised regarding the overlap between the PSR's role as economic regulator and that of the FCA as conduct regulator. It was asked whether there are contexts where such an overlap has worked well. The regulation of payment systems in Australia was discussed. Another example outside the financial services context was Ofcom which has an economic regulation role but also needs to conduct an assessment of whether a licensee is a 'fit and proper person'.

219. We noted that the combination of economic and conduct regulation has become more difficult in some of the contexts examined in the project, particularly where regulators adopt approaches that might be said to be characterised by micro-management of a market or sector. In the context of payment systems, it was noted that the PSR's economic regulation role is intended to be ring-fenced from the FCA's more general activities.

A.6 Regulating access to payment systems and complexity

220. On the issue of access to payment systems one stakeholder noted that 'we are a regulated institution' in the sense that payment services providers are subject to the PSD and associated obligations.

221. Additional complexity, however, comes with regard to shared ownership. It was noted by one stakeholder that it is not sufficient to regulate just the systems but that it may be necessary to influence the rules that pertain to the use of the system. There was no significant disagreement on the general point that payment systems pose some unique challenges, but there was a wider range of views on the extent and implications of similarities with access regimes in other sectors.

A.7 Outcomes focused regulation

222. One stakeholder raised a question about outcomes focused regulation and the type of outcomes that would demonstrate that the regulatory framework was effective.

223. We noted that the issue of outcomes needs to be assessed in relation to the three objectives of the PSR (namely, the competition objective, innovation objective and service-user objective) and emphasised the importance of defining exactly what is meant by outcomes focused regulation citing the example of the legal services sector as a warning of how things can go wrong if outcomes are narrowly defined. Among

other things, this can hinder innovation, the opposite of what the PSR will be seeking to achieve.

A.8 The impact of technological change

224. Related to the issue of access was a call to undertake a technical review of the 'mess that is the current system end to end'. This concern was expressed particularly from the perspective of small banks and credit unions who argue that their access to the most efficient technology is impeded due to challenges of navigating the morass of systems that have grown up over time.

225. One stakeholder emphasised the importance of technology by asking 'could you just get a technologist [on the review council] rather than a banker'.

A.9 General v detailed approaches

226. Stakeholders were as much interested to know about the PSR's approach to detailed issues as general policy questions. For example, a representative of a cards association asked whether the Report would be looking at network pricing. It was noted that this was not within the specific remit and focus of the Report but that it was our understanding that such an issue was within the scope of a separate workstream.

A.10 Involvement of the PSR and engagement of industry

227. A number of stakeholders made clear their strong desire to be kept informed of the PSR's deliberative process and to be engaged in the debate. They emphasised a need for the PSR to engage with industry through a two-way process that would allow stakeholders to make their views known and for the PSR to respond. It was reiterated that the specific meeting was an initial forum to exchange ideas on possible approaches to regulation that might inform the PSR as it makes progress on a much wider front. It was part of a much wider process of engagement and was taking place without any definitive views being taken as to what approach the PSR should, or would be minded to, take at this stage. Nevertheless the central importance of ensuring a two-way dialogue between industry and regulator is a relevant consideration for the PSR to bear in mind as it develops its regulatory approach and strategy over the next period.

A.11 Competition issues

228. There was relatively little discussion of competition issues, but one potentially important point was raised by a stakeholder in relation to the assessment of competition, namely that the international dimension should not be underestimated or over-looked: overseas operators can much more easily take business away from

domestic operators than in some of the comparator sectors that had been discussed in the course of the meeting.