

Structural separation in regulated industries

Report on implementing the OECD Recommendation

2016

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Foreword

On 26 April 2001, the OECD Council adopted a Recommendation Concerning Structural Separation in Regulated Industries suggesting to OECD countries that when regulated firms have activities that are potentially competitive and linked to non-competitive activities, such as natural monopoly activities, governments should consider the benefits and costs of structural measures separating two activities. The Recommendation was accompanied by a detailed report, and both advocated careful consideration of the potential pros and cons of structural separation versus the potential pros and cons of behavioural measures.

Since then, the OECD has conducted reviews of experience with structural separation in many countries and in a variety of sectors. The sectors have always included electricity, gas, railways and telecommunications, in addition to other sectors. In 2011, the Recommendation was modified to ensure that potential impacts on investment are taken into account when the possible appropriateness of structural separation is considered.

This is the fourth report issued to monitor the implementation of the Recommendation. It concludes that structural separation remains a relevant remedy to advance the process of market liberalisation and notes that other areas of application could also be included such as vertically integrated industries where only some activities are subject to competitive constraints. To include these and other points, a second amendment of the recommendation was made and is appended to this Report. Overall, the report concludes that the recommendation is still important and relevant, with substantial evolution of policies since the initiation of the recommendation.

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Chapter 1. Introduction

In April 2001, the Council adopted the “Recommendation of the Council concerning Structural Separation in Regulated Industries”¹ (hereafter “the Recommendation”). In essence, the Recommendation encourages OECD countries to consider structural separation as a mechanism for enhanced competition reorganisation, in contradistinction to behavioural measures, particularly in the context of privatisation, liberalisation or regulatory reform.

The Recommendation was preceded by a detailed report, entitled *Restructuring Public Utilities for Competition*.² This report considered the competition problems that may arise from vertical integration; it explored the options of vertical separation in comparison with access regulation; and it provided a brief overview of experiences with different approaches to structural separation across a variety of industries, including airports, ports, roads, electricity, natural gas, rail services, telecommunications, broadcasting and broadband interactive services, and postal services.

In addition, the Recommendation instructed the Competition Committee to review, three years after its adoption, the experiences of OECD countries in implementing its recommendations. A first report was issued in June 2006,³ which provided an overview of experiences across the OECD, alongside a series of more detailed case studies with respect to the electricity, gas, telecommunications, rail and postal sectors. A second report was submitted to the Council in 2011,⁴ providing a detailed update on relevant experiences in the areas of electricity, gas, telecommunications and rail. This second report placed considerable emphasis on a growing body of scholarship that focused on the potential investment effects that may stem from structural separation.⁵ It led, accordingly, to a revision of the Recommendation to include reference to the potential “effects on corporate incentives to invest” within the calculus of factors that may lead an OECD country to opt for or against structural separation.

This report provides a third update on experiences with structural separation to date. It builds on considerable existing work of the OECD in this area and extends it by examining potential new sectors

¹ *Recommendation of the Council concerning Structural Separation in Regulated Industries*, adopted on 26 April 2001 [C(2001)78/FINAL], amended on 13 December 2011 [C(2011)135 and CORR1] and on 23 February 2016 [C(2016)11 - C/M(2016)3], www.oecd.org/daf/competition/recommendations.htm.

² OECD, *Restructuring Public Utilities for Competition* (2001) (hereafter the “2001 report”), www.oecd.org/daf/competition/sectors/19635977.pdf.

³ OECD, *Report to the Council on Experiences on the Implementation of the Recommendation concerning Structural Separation in Regulated Industries* [C(2006)65, Annex], published June 2006 (hereafter the “2006 report”), www.oecd.org/daf/competition/sectors/45518043.pdf.

⁴ OECD, *Recent Experiences with Structural Separation: a Report to the Council on Implementation of the 2001 Recommendation concerning Structural Separation in Regulated Industries* [C(2011)135, Annex I and CORR1], published January 2011 (hereafter the “2011 report”), www.oecd.org/daf/competition/sectors/50056685.pdf.

⁵ 2011 report, pp.108-112.

for application of the Recommendation, as well as experiences in certain non-Members. This report was prepared by the OECD Secretariat on the basis of a questionnaire sent to delegates of the Working Party No. 2 on Competition and Regulation (hereafter the “WP2”) on 6 October 2014, discussions at meetings of the WP2 on structural separation on 15 December 2014 and 19 June 2015 and on Secretariat fact-finding work. An earlier draft of the report was shared with delegates on 9 June 2015 and this revised version incorporates comments received from delegations from Australia, Japan, Latvia, New Zealand, Peru, Turkey and the United States.

While the Recommendation is addressed to OECD countries, it is also open to non-OECD countries adherence. Romania (which is an Associate in the Competition Committee and its subsidiary bodies) is to date the only non-OECD country which has adhered to the Recommendation. However, discussions in the WP2 have demonstrated a strong interest from other non-Members on the issue of structural separation. Accordingly, in addition to Members and Romania, the reach of the report extends to the Participants in the Competition Committee (including Bulgaria, Colombia, Latvia, Lithuania, the Russian Federation, Peru and Ukraine) as well as the European Union.

The report is structured as follows:

Chapter 1 discusses the background to the Recommendation and the meaning of structural separation in this context. It also considers a number of notable recurring themes in the literature and recent experiences, including: the increasing use of the Independent System Operator model; greater levels of public-private partnership and state-investment in certain privatised sectors; and the use of structural separation to further goals outside the conventional competition context.

Chapter 2 then outlines and discusses experiences in both Members and certain non-Members with respect to the four established sectors that were examined in detail in the preceding report: namely, electricity and natural gas, telecommunications and rail services.

Chapter 3 explores the potential application of the Recommendation outside these sectors, considering, *inter alia*, postal services, ports, bus services, water supply and banking.

Chapter 4 provides a brief conclusion. The evidence presented in this report confirms the continuing relevance of the Recommendation, and illustrates its potential application within an expanding range of sectors and to address a broad spectrum of competition problems. Given the more extensive focus of this report, therefore, a number of minor textual changes to the Recommendation are suggested in order to reflect its wider significance and scope of application.

1.1 The Recommendation and its context

The 2001 report that preceded the Recommendation set out its broad economic context. It noted that most market “sectors” in fact comprise a series of separate yet related activities or components, many of which produce intermediate goods or services for use in other activities. Where these components are complements in the production of the final good or service to be provided, a vertical relationship exists. Where these components are substitutes in the production of the final good or services, a horizontal relationship exists.⁶

In the case of the conventional regulated industries (often referred to as utility sectors), it is generally the case that at least one of the component activities leading to the production of the final good or service is non-competitive, whether due, for example, to traditional economies of scale, network effects, or

⁶ 2001 Report, p.8.

regulatory restraints imposed to support universal service provision.⁷ The extent to which any component is to be considered competitive or non-competitive tends to differ from sector to sector and between jurisdictions: “In practice the level of competition that can be sustained in a market is a continuum.”⁸

Historically, fully integrated monopolists operated the conventional public utility sectors in most jurisdictions worldwide. Nonetheless, the 2001 report pointed to the potential benefits of the introduction of competition into the competitive components of such industries, including increased innovation and efficiency; better consumer choice; and a diminished need for intensive regulation. Where an historic vertically integrated monopolist faces new competition in respect of its potentially competitive activities, however, the incumbent has strong incentives to restrict competition in the related complementary activities:

- In some instances regulation of the bundled (competitive plus non-competitive) services will be lighter than the regulation of the non-competitive service alone, so that the regulated firm can recapture some or all of the monopoly rents by entering and restricting competition in the competitive activity.
- If a regulator has difficulty assessing the value of the assets to be included in the “rate base” of the regulated firm, the regulated firm may seek to enter other markets in order to enlarge the size of its “rate base” and thus to increase its profits.
- Other arguments include the possibility that an incumbent whose non-competitive activities are threatened by potential technological innovation may seek to avoid rivalry in its competitive activities so as to render new entry in its monopoly segment more difficult as well.⁹

Accordingly, the 2001 report identified a variety of mechanisms by which policy-makers might protect and promote competition in the competitive component(s) of an industry with complementary competitive and non-competitive segments: access regulation; ownership separation; club ownership, that is, joint ownership of the non-competitive activity by firms in the competitive component; operational separation, that is, placing the non-competitive component under the control of an independent entity; separation of the non-competitive component into smaller reciprocal parts; and lesser forms of separation such as accounting, functional and corporate/legal separation.¹⁰

The principal benefits of vertical separation when compared with access regulation are: separation limits the need for regulation that is difficult and costly to devise and implement, and may be only partly effective; it improves information; and it eliminates the risk of cross-subsidies by the incumbent from its non-competitive to its competitive segments. Conversely, separation may involve the loss of (potentially very significant) cost economies that arise from integration.¹¹ Moreover, as was emphasised in the 2011 report, separation may—but does not *necessarily*—have a negative impact on incentives to invest for network owners and operators.¹² Structural separation is, therefore, potentially an advantageous reform within any integrated sector. Before implementation, however, careful consideration must be given to its likely benefits (and, moreover, possible disadvantages) in a given situation.

⁷ *Ibid.*

⁸ 2001 Report, p.9.

⁹ 2001 report, pp.10-11.

¹⁰ 2001 report, pp.11-20.

¹¹ 2001 report, pp.20-26.

¹² 2011 report, pp.108-112.

Thus, as amended, the operative part of the Recommendation proposes the following to Members and non-Members having adhered to it (hereafter the “Adherents”):

- When faced with a situation in which a regulated firm is or may in the future be operating simultaneously in a non-competitive activity and a potentially competitive complementary activity, Adherents should carefully balance the benefits and costs of structural measures against the benefits and costs of behavioural measures.
- The benefits and costs to be balanced include the effects on competition, effects on the quality and cost of regulation, effects on corporate incentives to invest, the transition costs of structural modifications and the economic and public benefits of vertical integration, based on the economic characteristics of the industry in the country under review.
- The benefits and costs to be balanced should be those recognised by the relevant agency(ies) including the competition authority, based on principles defined by the Adherent. This balancing should occur especially in the context of privatisation, liberalisation or regulatory reform.

Both the 2006 and 2011 reports concluded that the Recommendation was still important and relevant, as was its suggested balancing exercise between the costs and benefits. As noted, the 2011 report called for greater recognition within this balancing exercise of the potential impact on investment incentives, which is now reflected in paragraph 2 of the Recommendation as set out above.

1.2 Structural Separation in Theory and Practice

Between integrated monopoly and full ownership separation of competitive and non-competitive components within a sector, a wide spectrum of potential degrees of separation exists. Accounting separation, whereby the integrated entity keeps separate accounts for its different business activities, constitutes the weakest form of possible separation. It has, nonetheless, been deployed with some frequency in practice, particularly at the earlier phase of liberalisation, and often functions as a precursor to more intensive forms of separation at a later stage.¹³ Beyond accounting separation, Cave identified “six degrees” of more intensive functional or operational separation that nonetheless fall short of full ownership separation, namely: creation of a wholesale business division; virtual separation; business separation; business separation with localised incentives; and legal separation involving separate legal entities under the same ownership.¹⁴

An open debate exists as to whether forms of separation below that of full ownership separation should be viewed as structural measures, or, conversely, as purely behavioural approaches.¹⁵ The 2001 report placed ownership separation, quite clearly, in the “structural” category;¹⁶ it viewed operational

¹³ For example, the EU’s First Electricity and Gas Directives (Directives 96/92/EC and 98/30/EC, respectively) required only accounting separation by incumbent energy firms; by the time of the Third Energy Directives (Directives 2009/72/EC and 2009/73/EC, respectively), Member States were required to implement either full ownership separation or an ISO or TSO system; see also the 2011 Report, pp.28-34 and 50-52.

¹⁴ Martin Cave, “Six Degree of Separation: Operation Separation as a Remedy in European Telecommunications Regulation,” 64 *Communications and Strategies* (4th quarter 2006), pp.1-15. See also discussion of the benefits and disadvantages of functional separation in Orada Teppayayon & Erik Bohlin, “Functional separation in Swedish broadband market: Next step of improving competition,” 34 *Telecommunication Policy* 375-383 (2010).

¹⁵ See also the 2011 Report, p.10.

¹⁶ 2001 report, p.13.

separation as a “hybridised” approach;¹⁷ and although it acknowledged lesser degrees of separation—accounting, functional and legal—as forms of separation as such, it cast some doubt on the effectiveness of these approaches to promote or protect competition in their own right, particularly given the much more limited impact on incentives.¹⁸ Such lesser degrees of separation might, nevertheless, be an important and effective means by which to strengthen other forms of separation or regulation, particularly access regulation.¹⁹ As the experiences discussed in this and preceding reports illustrate, moreover, Members have experimented with a wide variety of types and degrees of separation, and do not appear to feel bound by the semantic question as to whether their efforts fall within the structural or behavioural categories. Reflecting the spirit of the Recommendation, what is of greatest importance is the extent to which any separation measures to be implemented will be effective in providing a durable solution to on-going structural competition problems.

Separation, whatever its degree, may be effected by a variety of mechanisms. The Recommendation is directed at Members, and anticipates that any top-down decision to implement structural separation is most likely to arise when that sector is undergoing significant changes, for example at the time of privatisation or liberalisation. The progressive opening of electricity and gas markets in the European Union, accompanied by increasingly intensive separation requirements for incumbent operators, provides an illustration of such top-down reform.²⁰ Sector regulators may be empowered to require separation as a regulatory remedy. Competition law enforcers, too, often have the power to require or at least consent to structural separation as a remedy, whether in the context of antitrust or merger cases.²¹ Finally, incumbent firms may voluntarily propose or agree to separation, although usually in circumstances where the possibility of (potentially involuntary) separation is already on the policy agenda. The decision of the United Kingdom’s telecommunications incumbent, BT, voluntarily to implement functional separation in 2005 is a paradigmatic example in this regard.²²

As noted above, separation may involve a trade-off between the benefits that arise from increased competition, on the one hand, to be balanced against any reduction in efficiency that arises from loss of economies of scope. The 2011 report made reference to a significant body of scholarship exploring the extent to which separation has been beneficial in practice across a wide range of sectors and jurisdictions.²³ Considerable further recent work confirms that there can be no generalised answer to the question as to whether structural separation is beneficial on balance, although, certainly, beneficial effects have been demonstrated in many instances.²⁴ It is important to reemphasise that vertical

¹⁷ 2001 report, p.14.

¹⁸ 2001 report, p.18.

¹⁹ 2001 report, p.19.

²⁰ See fn. 14 above.

²¹ See the discussion on structural separation as a remedy contained in Chapter 2 of the 2011 report.

²² 2011 report, pp.83-85.

²³ 2011 report, pp.12-14, particularly fn.18.

²⁴ See e.g. J. Gregory Sidak & Andrew P. Vassallo, “Did Separating Openreach from British Telecom Benefit Consumers?” 38 *World Competition* 38 31–76 (2015); Felix Höffler & Sebastian Kranz, “Imperfect legal unbundling of monopolist bottlenecks,” 29 *Journal of Regulatory Economics* 273-292 (2011); Marc Bourreau, Pinar Doğan & Romain Lestage, “Level of access and infrastructure investment in network industries,” 46 *Journal of Regulatory Economic* 237-260 (2014); Christian Growitsch & Marcus Stonzik, “Ownership unbundling of natural gas transmission networks: empirical evidence,” 46 *Journal of Regulatory Economics* 207-225 (2014); Xuejuan Su, “Have customers benefitted from retail competition?” 47 *Journal of Regulatory Economics* 146-182 (2015); Marc Bourreau & Joeffrey Drouard,

integration is not problematic in and of itself, and thus should not be automatically discounted as a possible market structure.²⁵

Moreover, most sectors with non-competitive components are already subject to some degree of regulation within most jurisdictions. The relationship between regulation and structural separation is complex: the two can be complementary but also substitutes in their effects. The 2001 report drew a clear dichotomy between access regulation, on the one hand, and full ownership separation, on the other.²⁶ Nonetheless, it foresaw a complementary relationship between lesser forms of separation and access regulation, whereby the former may facilitate the task of the latter.²⁷ A recurrent theme across a number of recent empirical studies is the pre-eminent importance of robust and effective regulation within liberalised and liberalising market, which may take higher priority than structural reorganisation.²⁸ Conversely, there is evidence that effective regulation may help to ameliorate the co-ordination problems that can arise from vertical separation.²⁹ Accordingly, as the Recommendation recognises, any discussion of the merits of structural separation cannot occur in a vacuum, but instead must take account of existing

“Progressive entry and incentives to invest in alternative infrastructure,” 45 *Journal of Regulatory Economics* 329-351 (2014); Roland Meyer, “Economics of scope in electricity supply and the costs of vertical separation for different unbundling scenarios,” 42 *Journal of Regulatory Economics* 95-114 (2012); Stephen Littlechild, “Merchant and regulated transmission: theory, evidence and policy,” 42 *Journal of Regulatory Economics* 308-335 (2012); Fumitoshi Mizutani & Shuki Uranishi, “Does vertical separation reduce cost? An empirical analysis of the rail industry in European and East Asian OECD Countries” 43 *Journal of Regulatory Economics* 31-59 (2013); Jacques Pelkmans & Giacomo Luchetta, “Enjoying a single Market for Network Industries?” *Notre Europe Jacques Delors Institute*, February 2013; Klaus Gugler, Mario Liebensteiner & Stephan Schmitt, “Vertical Disintegration in the European Electricity Sector: Empirical Evidence on Lost Synergies,” published October 2014, www.wu.ac.at/fileadmin/wu/d/ri/regulation/Gugler_et_al_2014_Vertical_Disintegration_WU_Working_Paper.pdf; Rico Merkert & David A. Hensher, “Open access for railways and transaction cost economics—Management perspectives of Australia’s rail companies,” 48 *Research in Transport Economics* 227-236 (2014); Bruce Mountain, “Independent regulation of government-owned monopolies: An oxymoron? The case of electricity distribution in Australia,” 31 *Utilities Policy* 188-196 (2014); Dirk Buschle, “Unbundling of State-owned Transmission System Operators—Effective Remedy or Eyewash?” *European Networks Law & Regulation Quarterly* 1/2013, p.49 (2013); Paolo Mancuso, “Regulation and efficiency in transition: The case of telecommunications in Italy,” 135 *International Journal of Production Economics* 762-770 (2012); Jan Krämer & Daniel Schnurr, “A unified framework for open access regulation of telecommunications infrastructure: Review of the economic literature and policy guidelines,” 38 *Telecommunications Policy* 1160-1179 (2014); and Bronwyn Howell, “Separation Anxieties: Structural Separation and Technological Diffusion in Nascent Fibre Networks,” 2014 *TPRC Conference Paper*, published August 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418599.

²⁵ F. Lafontaine & M. Slade, “Vertical Integration and Firm Boundaries: The Evidence,” 45 *Journal of Economic Literature* 629-685 (2007).

²⁶ 2001 report, pp.20-27.

²⁷ 2001 report, p.19.

²⁸ See e.g. Reza Rajabiun & Catherine Middleton, “Regulation, investment and efficiency in the transition to next generation broadband networks: Evidence from the European Union,” 32 *Telematics and Informatics* 230-244 (2015); Filippo Belloc, Antonio Nicita & Maria Alessandra Rossi, “Whither policy design for broadband penetration? Evidence from 30 OECD countries,” 36 *Telecommunications Policy* 382-398 (2012); and Antonio Massarutto & Paolo Ermano, “Drowned in an inch of water. How poor regulation has weakened the Italian water reform,” 24 *Utilities Policy* 20-31 (2013).

²⁹ Miguel Amaral & Jean-Christophe Thiebaud, “Vertical Separation in Rail Transport: How Do Prices Influence Coordination?” 16(2) *Network Industries Quarterly* 15 (2014).

and potential future sectoral regulation. Any such balancing exercise must, additionally, be cognisant of the “better regulation” and “smart regulation” movements in effect in many jurisdictions.³⁰

The recitals to the Recommendation make explicit reference to its applicability within “regulated utility networks” and “network industries”. The preceding reports focused on experiences with structural separation in what one might describe as the classic utility sectors that have, moreover, undergone a degree of liberalisation in most countries by this stage: namely, electricity, gas, telecommunications and, to a lesser degree, rail services. Chapter 3 of this report, however, considers the case for applying the Recommendation outside these conventional areas: (i) to public utility sectors where the potential for competition is less advanced (for example, water and postal services); (ii) to transport infrastructure that may demonstrate a quasi-“essential facility” character (for example, ports and bus services); and, more radically, (iii) to markets without a traditional vertically integrated structural or concomitant bottleneck/foreclosures issues, but where separation may address alternative market problems, such as moral hazard. Some of these sectors were mentioned in the 2001 report. In contrast to the acknowledged argument that structural separation may not always be optimal even within fully liberalised utility sectors such as energy, Chapter 3 aims to explore whether structural separation may be of benefit across a broader range of sectors, and to address a broader range of market problems, than previously contemplated. The Recommendation itself is broadly written, referring to any “regulated firm [that] is or may in the future be operating simultaneously in a non-competitive and a potentially competitive complementary activity,” a description that is expansive enough to encompass categories (i) and (ii) above. Whilst it is likely that category (iii) falls outside its scope, Chapter 3 nonetheless gives some consideration to this issue insofar as structural separation within the banking sector constitutes what is arguably the most prominent development in this context in recent years.

1.3 Structural Separation: Recurrent Themes in Recent Practice

The experiences outlined in the chapters to follow do not call into question the continuing appropriateness of the Recommendation nor its potentially applicability across an increasingly wide range of sectors. Importantly, the Recommendation itself calls for a nuanced assessment of all policy considerations prior to any decision to implement separation measures. As recent experiences with structural separation will illustrate, moreover, a number of recurring themes or relevant policy factors are discernible in current practice.

First, increasing use is being made of Independent System Operator and Independent Transmission System Operator models, which have the potential to change the balance of advantages with respect to separation. Pollitt identified five possible models for transmission system operation:

- The independent transmission system operator (ITSO), whereby the system operation function is integrated with the transmission system ownership and maintenance;
- The legally unbundled transmission system operator (LTSO), which is legally unbundled from the rest of the system and owns and operates transmission assets;
- The independent system operator (ISO), which operates the transmission system but does not own the transmission assets.
- A hybrid model where both the ISO and the transmission owner are ownership unbundled from the rest of the system;
- The vertically integrated utility.³¹

³⁰ See, generally, Stephen Weatherill (ed.), *Better Regulation*, Hart Publishing, Oxford, UK (2007).

The ISO/ITSO models were first deployed on a wide-scale basis in the United States, in the context of the energy sector, although its effectiveness in this context has been disputed.³² The idea behind both of these models is the need to separate the operation (and, sometimes, the ownership) of a transmission or distribution system from the control or operation of other (potentially competitive) activities within a value chain, such as generation.³³ The key distinction between them is that whereas ISOs do not own any wires or pipes, ITSOs do own such infrastructure.³⁴ As the nomenclature suggests, independence is a core regulatory objective for the governance of both ISOs and ITSOs, yet this may be difficult to achieve in practice.³⁵ Moreover, ISOs may have an incentive problem insofar as they are “asset-light,” in contrast to *inter alia* ITSOs, so that any financial penalties that can be imposed by regulators for poor performance tend to be very low in relation to the size of the negative effective that under-performance can cause on the whole market.³⁶ Nonetheless, the experiences discussed in the following chapters suggest a growing deployment of both of these models, particularly the ISO model, in order to address competition problems in vertically integrated markets.³⁷ An unanswered question is whether, ultimately, the Recommendation contemplates full ownership separation as the optimal market structure (which increasing use of the ISO/ITSO models may challenge).

Second, there is an increasing fluidity with respect to the boundary between public and private enterprise, which again may change the regulatory calculus as to whether structural separation is appropriate.³⁸ The Recommendation applies “especially in the context of privatisation,” and indeed in many Members, liberalisation of former regulated monopoly industries has been accompanied by concomitant privatisation of former state-owned assets. What the experiences discussed in the following chapters demonstrate, however, is, frequently, a more nuanced state of affairs than a conventional dichotomy between state/private ownership. There is evidence that increased use is being made of public-private partnerships to fund the development or operation of ostensibly public infrastructure.³⁹ Particularly with respect to large-scale capital-intensive infrastructure projects such as fibre development, moreover, there is evidence of greater appetite for public investment in otherwise privatised industries.⁴⁰

³¹ Michael G. Pollitt, “Lessons from the History of Independent System Operators in the Energy Sector, with applications to the Water Sector,” *EPRG Working Paper No.1125*, published August 2011, www.eprg.group.cam.ac.uk/wp-content/uploads/2014/01/EPRG-1125_complete.pdf, at pp.3-4.

³² See, e.g., Theodore J. Kury, “Price effects of independent transmission system operators in the United States electricity market,” 43 *Journal of Regulatory Economic* pp.147-167 (2013).

³³ Pollitt (2011), at 1.

³⁴ Pollitt (2011).

³⁵ Pollitt (2011), at p.18.

³⁶ Pollitt (2011), at p.18.

³⁷ See also Pollitt (2011), for a thorough overview of the use of ISOs/ITSOs in the context of the energy sector.

³⁸ See, in the context of telecommunications, e.g. Jan Krämer & Daniel Schnurr, “A unified framework for open access regulation of telecommunications infrastructure: Review of the economic literature and policy guidelines,” 38 *Telecommunications Policy* 1160-1179 (2014).

³⁹ See, e.g., María Cabrera, Ancor Suárez-Alemán & Lourdes Trujillo, “Public Private Partnerships in Spanish Ports: Current status and future prospects,” 32 *Utilities Policy* 1-11 (2015).

⁴⁰ See, e.g., the significant investments made by the Australian and New Zealand Governments in fibre rollout. For the position under EU law, see European Commission, *Guide to High Speed Broadband Investment*, Release 1.1 – published 22 October 2014, particularly pp.32-35.

This mixture of public and private elements may impact upon the need for, or suitability of, structural separation. Private involvement in public infrastructure projects may, on the one hand, be facilitated by more structural guarantees regarding market competition. A recent survey relating to Argentina, for instance, suggested that vertical separation has and should be deployed as a means by which to restore investor confidence in public-private partnerships for public utility development.⁴¹ On the other hand, where a state wishes to maximise its own returns, it may grant private monopolies to concessionaires in order to extract a premium.⁴² Infrastructure operated by a private entity that is, at least in part, publicly funded is likely to be subject to demanding open access obligations, which may negate the necessity of more intensive structural separation.⁴³

Third, the Recommendation was envisaged as a means by which to minimise the competition problems that may arise where a vertically integrated firm operates in both competitive and non-competitive market segments, specifically the risk of foreclosure. Nonetheless, the experiences discussed in this report demonstrate that policymakers have also used structural separation to advance broader goals beyond the immediate competition context. Most obviously, Chapter 3 discusses the recent (contentious) deployment of structural separation within the banking sector, specifically in order to promote stability and resilience. Amongst other reasons, structural reform has been mooted in the water sector specifically in order to stimulate greater upstream competition and to diversify sources of supply, and thus to tackle the threat of future water shortages associated with population growth and climate change. In the ports sector, the movement towards greater adoption of the “landlord” model, which incorporates a significant degree of separation between ownership and operation of infrastructure, reflects not only underlying competition issues, but also the importance of shipping and ports for trade, and consequent economic growth and national competitiveness, both within developed and developing economies.⁴⁴ Whilst this report does not pass comment upon the effectiveness or appropriateness of structural separation as a mechanism by which to address such parallel objectives, it is important to appreciate the full range of policy goals that may come into play in this context, in addition to the policy considerations set out in the Recommendation itself.

⁴¹ See Andrés Chambouleyron, “Mitigating expropriation risk through vertical separation of public utilities: The case of Argentina,” 30 *Utilities Policy* 41-52 (2014).

⁴² See, for example, the concerns expressed in relation to the Australian ports sector.

⁴³ Although note the New Zealand example, whereby the privatised telecommunications incumbent voluntarily implemented a formal legal separation, in order to be permitted to participate in the lucrative state-sponsored fibre development programme: see p.43 below.

⁴⁴ See e.g. *The Australian Government Competition Policy Review*, Report March 2015, pp.192, 206; OECD (2011), p.109; and Lourdes Trujillo, María Manuela González & Juan Luis Jiménez, “An overview on the reform process of African ports,” 25 *Utilities Policy* 12 (2013).

Chapter 2. Update on experiences in established sectors

This chapter provides an update on experiences with structural separation in relation to the four established sectors considered in the 2011 report: natural gas and electricity, telecommunications and rail services. It considers developments with respect to many countries.

2.1 Electricity

This section provides a non-exhaustive update on experiences with structural separation in the electricity sector.

Australia

A recent Australian Government review of competition policy highlighted that structural separation has been an important feature of the reform of Australian electricity markets since the 1990s. Further reforms mean that considerable advances have been made in respect of electricity markets in recent years, in particular in relation to the increased degree of consumer choice and empowerment in such markets.⁴⁵ Noting the significant degree of structural separation effected in such markets alongside the increased use of price regulation by independent regulators to control monopoly networks, the report suggests clear links between market reorganisation and improved performance.⁴⁶ The report notes, however, a significant increase in electricity prices, which has been attributed by some stakeholders to the effects of competition and privatisation. Rising energy prices have focused considerable recent attention on the performance of the energy sector. The key driver of the electricity price increases in most jurisdictions has been higher network costs. Some increases in network costs were necessary to replace ageing assets and meet increased peak demand. However, weaknesses in the framework for regulating energy network businesses, including restrictions on the ability of the regulator to reject excessive forecasts, meant that consumers were paying more than necessary for a reliable energy supply. Rule changes in 2012 and 2014 have allowed more efficient pricing of electricity network costs and retail prices have subsequently stabilised.

*Bulgaria*⁴⁷

The Bulgarian Commission on the Protection of Competition (CPC) carried out an inquiry in 2013 into the functioning of the electricity sector. The main goals of the inquiry were to understand the key issues affecting the pace of liberalisation as well as to identify any on-going competition problems that might merit further action by the CPC. The inquiry conducted that the functional separation that is in

⁴⁵ *The Australian Government Competition Policy Review*, Report March 2015, p.191.

⁴⁶ *Ibid.*, pp.191-92

⁴⁷ The information that follows was provided by the country in its submission to the 15 December 2014 OECD Working Party No.2 on Competition and Regulation meeting on structural separation.

place with respect to the three incumbent electricity companies—EVN, CEZ and Energy Pro—is ineffective in practice, despite being required by both European Union and domestic law.

The CPC subsequently initiated competition law proceedings against the incumbents for an alleged abuse of dominance by hindering the process of switching by non-household consumers, thus slowing the emergence of an open energy market for electricity. Despite the fact that the entities are functionally separated in formal terms, the CPC took the view that each acted as a single entity within its respective territory with respect to distribution, supply and trade functions. The proceedings appear to be on-going at present.

Czech Republic

In April 2013, the Czech electricity incumbent, CEZ, entered into a legally binding commitment decision with the European Commission,⁴⁸ pursuant to which it agreed to divest about 800-1,000 MW of its generation capacity.⁴⁹ The commitment decision was preceded by an antitrust investigation by the Commission under Article 102 of the Treaty on the Functioning of the European Union (TFEU), premised on the concern that CEZ may have abused its dominant position on the Czech market for generation and wholesale electricity by making a pre-emptive reservation in the Czech electricity transmission network, with the effect of preventing new market entry. To address the Commission's competition concerns and also avoid a finding of breach, CEZ offered to sell one of a number of its generation assets in the Czech Republic: namely, Pocerady lignite-fired power plant (1,000 MW); Chvaletice lignite-fired power plant (800 MW); Detmarovice coal-fired power plant (800 MW); or Melnik III lignite-fired power plant (500 MW) together with Tisova lignite-fired power plants (Tisova I—184 MW, Tisova II—112 MW). Under the terms of the commitment decision, CEZ has discretion as to which asset is to be sold, and it will be prohibited, for a period of 10 years, from regaining direct or indirect influence over the divested asset. In its assessment of the proportionality of the commitments adopted, the Commission held that:

*transfer of some of CEZ's generation capacity to a competitor represents a clear-cut solution to the identified competition concerns. Transfer of generation capacity is necessary in this case as no other type of remedy can effectively address the effects of CEZ's conduct.*⁵⁰

It noted that acquisition of any of the assets identified in the commitments should allow a buyer to establish itself on the Czech market for the generation and wholesale supply of electricity, and that a new entrant should then be able to gradually develop a wider portfolio of generation assets and to compete effectively with CEZ.⁵¹

⁴⁸ Under Article 9 of Regulation 1/2003.

⁴⁹ See Summary of Commission Decision of 10 April 2013 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union and Article 54 of the EEA Agreement (Case AT.39727—CEZ) (OJ C 251/4, 31.8.2013).

⁵⁰ Ibid, at (15).

⁵¹ See European Commission Press Release IP/13/320, “Antitrust: Commission accepts commitments from CEZ concerning the Czech electricity market and makes them legally binding,” published 10 April 2013.

European Union (EU)

The preceding report described in detail the unbundling options presented under the EU's Third Gas⁵² and Electricity Directives.⁵³ The Directives require, *inter alia*, that Member States adopt one of three unbundling models for gas and electricity transmission networks: full ownership unbundling; an independent systems operator model whereby ownership of transmission assets could remain within a vertically integrated group but system operation would be conducted by a ownership-separated entity; and an independent transmission operator model, whereby operation of transmission assets would be conducted by an autonomous entity, albeit remaining part of the same vertically integrated group. Despite sometimes-trenchant criticism of the effectiveness in practice of these reforms,⁵⁴ the structural separation agenda reflected in the Directives continues apace.

Pursuant to Article 9 of both Directives, under the first (full ownership unbundling) model, the same entity is prohibited from controlling generation, production and/or supply activities, while at the same time controlling or exercising any right over a TSO or a transmission system. In May 2013, the Commission issued a Staff Working Document, setting out its (explicitly non-legally-binding) approach to the interpretation and application of the rules relating to this first model.⁵⁵ This guidance states, in particular, that:

the objective which the unbundling rules of the Electricity and Gas Directives pursue is the removal of any conflict of interest between generators/producers, suppliers and transmission system operators. It would not be in line with this objective if certification of a TSO were to be refused in cases where it can be clearly demonstrated that there is no incentive for a shareholder in a TSO to influence the TSO's decision making in order to favour his generation, production and/or supply interest to the detriment of other network users.⁵⁶

As examples of such circumstances, the guidance cites cases where a shareholder might have a participation in a transmission network in the EU, as well as participation in generation activities in another jurisdictions (e.g. Australia or the United States), or where participations in both sectors are held by arms-length financial investors. In such situations, where it can be clearly demonstrated that the shareholder/investor has no incentive to influence the decision-making in the TSO concerned to benefit

⁵² Directive 299/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211/94, 14.8.2009).

⁵³ Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC (OJ L 211/55, 12.8.2009).

⁵⁴ See e.g. Klaus Gugler, Mario Liebensteiner & Stephan Schmitt, "Vertical Disintegration in the European Electricity Sector: Empirical Evidence on Lost Synergies," published October 2014, www.wu.ac.at/fileadmin/wu/d/ri/regulation/Gugler_et_al_2014_Vertical_Disintegration_WU_Working_Paper.pdf, suggesting that larger electricity systems, in particular, may incur high levels of inefficiency as a result of ownership unbundling.

⁵⁵ Commission Staff Working Document, *Ownership Unbundling: The Commission's Practice in Assessing the Presence of a Conflict of Interest including in case of Financial Investors* (SWD(2013) 177 final), published 8 May 2013.

⁵⁶ *Ibid*, p. 4.

its other holdings, the Commission takes the view that certification of the TSO as compliant with the requirements of the Directives is justified.⁵⁷

In light of this guidance, which indicates a more flexible and nuanced approach to ownership unbundling than the strict wording of the Directives might suggest, the United Kingdom Government has proposed amending its own unbundling provisions, which currently implement the full ownership unbundling model. In particular, the Call for Comments notes a concern that “*the transposition of the ownership unbundling requirements of the Third Package might be unduly constraining investment because Ofgem [the UK energy regulator] may not be able to certify certain cases that...do not present a risk of discriminatory treatment.*”⁵⁸ In essence, the Government proposes to maintain the existing ownership unbundling tests for certification, but to introduce greater flexibility by empowering Ofgem to grant certification even where the existing tests are not met, in circumstances where the applicant can establish that no risk of discrimination exists.⁵⁹

The most recent report on EU-wide energy prices and costs noted an above-inflation rise for both households and industry during the period 2008-2012, despite falling or stable levels of consumption. The report notes that the rise in prices is driven mainly by increased network costs, as well as taxes/levies. Disparities between different Member States are particularly significant with respect to retail prices, but also exist at the wholesale level indicating weaknesses in the internal energy market. The report recommends, *inter alia*, the benchmarking of network costs and practices to encourage European convergence, leading to increased efficiency and reduced costs.⁶⁰

In the area of antitrust enforcement, in August 2014 the Commission sent a Statement of Objections to Bulgarian Energy Holding (BEH), informing the company of its preliminary view that territorial restrictions on resale contained in BEH's electricity supply contracts with traders on the non-regulated Bulgarian wholesale electricity market may breach Article 102 TFEU. In particular, the Commission has concerns that BEH, the incumbent state-owned vertically integrated energy company, may be hindering competition by imposing restrictions as to where the electricity supplied by BEH may be resold.⁶¹ The case is on-going at present.

⁵⁷ Ibid, pp. 4-5.

⁵⁸ See Department of Energy & Climate Change, Call for Comments regarding the Proposed Amendments to the Ownership Unbundling Provisions of the Electricity Act 1989 and Gas Act 1986, published 16 September 2014, www.gov.uk/government/uploads/system/uploads/attachment_data/file/354981/unbundling_call_4_comments.pdf.

⁵⁹ *Ibid.*

⁶⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Energy prices and costs in Europe* (COM(2014) 21/2), published 29 January 2014.

Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Energy prices and costs in Europe* (COM(2014) 21/2), published 29 January 2014.

⁶¹ See European Commission Press Release IP/14/922, “Antitrust: Commission sends Statement of Objections to Bulgarian Energy Holding for suspected abuse of dominance on Bulgarian wholesale electricity market,” published 12 August 2014.

*Israel*⁶²

As noted in the preceding report,⁶³ deregulation and privatisation have been on the agenda for the electricity sector in Israel for some time, but have not yet been realised. In July 2013, the Director General of the Israeli Antitrust Authority (IAA) sent a detailed letter to the Ministers of Energy, Treasury and Economy, setting out the IAA's recommendations for a revised structure of the electricity market in Israel. In particular, the Director General advocated for the complete separation of ownership and control between generation, transmission and distribution. At present, the government-owned Israel Electric Company (IEC) controls most of the generation, all of the transmission and almost all of the distribution of electricity in the country. The IAA's analysis argues that this ownership structure incentivises and enables IEC to exercise market power in the generation segment and to block new entrants. This analysis suggests, moreover, that only total separation of ownership and control between the various segments would ensure a well-functioning and competitive market.

*Japan*⁶⁴

For many years, the Japanese electricity sector has been subject to competition within the power generation sector, as well as partial retail deregulation.⁶⁵ In the wake of the great East Japan earthquake followed by the Fukushima nuclear accident in March 2011, however, it became apparent that there were various limitations in the existing electricity system. The need for reform became apparent, with the primary objective of securing a stable supply of electricity. In response, the Cabinet approved a "Policy on Electricity System Reform" in April 2012, which includes the following proposals:

- Full liberalisation of retail and power generation sectors: to ensure that all consumers, including those in household sectors, will be able to choose their electricity supplier, the retail market is to be fully deregulated by 2016. Free competition will be facilitated through increased information provision and an active publicity campaign by the government and utilities, so that consumers can make informed choices about electricity suppliers. Smart meters are also to be introduced. Full liberalisation of power generation, together with the abolition of wholesale regulation, will also be pursued; alongside initiatives to increase trading volumes of electricity at wholesale power exchange markets. The government is also considering whether to add the electricity sector to the coverage of the Commodity Future Trading Act.
- Legal unbundling of transmission and distribution sectors: in order to ensure that generation and retail electricity operators are able fairly to use the electricity transmission and distribution systems, the aim is that these sectors should be legally unbundled and become separate companies from the general electricity utilities (GEUs), although the holding of capital relationships between these companies will not be excluded (that is, legal unbundling). Moreover, a code of conduct concerning personnel affairs and budget will also be implemented to further ensure their neutrality.

⁶² The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁶³ 2011 report, p.60.

⁶⁴ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁶⁵ See also the 2006 report, p. 30.

Amendment of the Electricity Business Act, which stipulates legal unbundling, was enacted in June 2015.⁶⁶

In response to the Cabinet's decision with respect to institutional reform in the energy sector, the Japanese Fair Trade Commission (JFTC) conducted a survey of the current state of the electricity market. It published a full report, entitled *Proposals for the Electricity Market from Competition Policy*, in September 2012.⁶⁷ The report begins by outlining the evolution of the electricity market since partial deregulation, noting that the market shares of new power suppliers remains small in comparison with those of the GEUs. Although GEUs generate more than 70% of power in Japan, new retail suppliers tend to source their electricity from non-utility power producers, and some own power plants. Although GEUs are subject to accounting separation requirements with respect to their transmission and distribution activities, the JFTC found evidence of incentives on the part of GEUs to treat new power suppliers unfairly by setting excessive transmission fees. In response, the JFTC recommended legal unbundling of the generation/wholesaling units of GEUs from their retail units; as well as legal unbundling of the transmission and distribution networks of GEUs from generation and retailing activities. In addition, it recommended the revitalisation of trading on the electric power exchange through increased usability of rules, and full liberalisation of the retail market.

*Latvia*⁶⁸

The electricity sector in Latvia is governed primarily by the Electricity Market Law, enacted in 2005. As a result of the EU's electricity liberalisation agenda, the former vertically integrated, state-owned electricity company, JSC Latvenergo, has been legally unbundled with respect to its transmission and distribution operations. Since July 2007, the operation of the electricity distribution system has been performed by Sadales tīkls, a legally independent subsidiary of Latvenergo. JSC Augstsprieguma Tīkls is the independent transmission system operator in Latvia; until January 2012 a subsidiary of Latvenergo, it is now owned by the Ministry of Finance. Another Latvenergo subsidiary, JSC Latvijas elektriskie tīkli, is the owner of the transmission system assets. A public electricity trader, JSC Enerģijas publiskais tirgotājs, was established in February 2014; its function is to purchase electricity from companies operating under feed-in tariff schemes for electricity generation from renewable sources and efficient co-generation power plants. Amendments to the Electricity Market Law in March 2014 required the electricity market in Latvia to be fully liberalised by January 2015, with the removal of retail price regulation of household electricity tariffs. In 2013, Latvia joined the Nord Pool Spot (NPS) power exchange; currently, all of its wholesale electricity trading is done via the NPS.

*Peru*⁶⁹

Whilst structural separation has not generally been deployed as a market remedy in Peru, apart from accounting separation in some industries, the exception is within the electricity sector. Here, the sector

⁶⁶ Further information on the legislative process is available online at: www.meti.go.jp/english/policy/energy_environment/electricity_system_reform/index.html.

⁶⁷ The full text of the report is available online, in English, on the JFTC's website, at: www.jftc.go.jp/en/pressreleases/yearly-2012/sep/individual-000499.files/FullText.pdf.

⁶⁸ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁶⁹ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

has been opened to competition, with structural separation between transmission and distribution, on the one hand, and generation, on the other. Exceptionally, there is also a pre-merger notification requirement with respect to the electricity sector (but not other sectors), which is enforced by Indecopi, the general competition authority in Peru.

Russian Federation⁷⁰

The most important step to the liberalisation of electricity within the Russian Federation was the adoption of a series of Federal laws in 2003, which require, *inter alia*, separation of activities in electric power transmission and/operation dispatch management from activities related to the production, purchasing and sale of electricity power. Mandatory separation of these activities was established in April 2006. Compliance with these obligations is supervised by the competition authority, the Federal Antimonopoly Service. The legislation makes provision for compulsory sale of the property of any company that combines such activities, and is intended to generate effective competition in the electricity market.

Ukraine⁷¹

Reform within the Ukrainian electricity sector has progressed more slowly than in the gas sector. New legislation setting out Principles of Functioning of the Electricity Market was adopted at the end of 2013, which will provide for fundamental reforms of the sector. The aim is to transition from the single-buyer model, which currently serves the wholesale electricity market, to a model of bilateral contracts and balancing markets. A full-scale market for electricity is due to for implementation in July 2017. At this point in time, legislators are also considering mandatory structural separation of activities within the electricity sector, which would similarly be implemented from July 2017.

United Kingdom⁷²

The United Kingdom electricity sector was subject to vertical separation at the time of privatisation under the Electricity Act 1989. Subsequent mergers in the sector have resulted in vertically integrated groups, however, as well as a significant reduction in the number of suppliers in the retail market to six larger players.⁷³ The renewed vertical integration of electricity companies in the United Kingdom has enabled them to meet more of their generation needs themselves, without as much necessity to trade on the wholesale market. Functional separation occurs in this market, nonetheless, as the wholesale and retails arms of the vertically integrated participants are operationally and managerially separated, and in principle, therefore, trade with the wholesale and retail arms of non-affiliated companies in the same manner with which they trade with their own subsidiaries.

⁷⁰ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁷¹ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁷² The information in this section was provided by the country in its submission to the 2014 OECD meeting on structural separation

⁷³ The largest six electricity suppliers directly own about 70 per cent of generation capacity: OFT, Ofgem & CMA, *State of the Market Assessment*, published 27 March 2014, www.ofgem.gov.uk/ofgem-publications/86804/assessmentdocumentpublished.pdf, at 1.36. The report notes that vertical integration is not such a strong feature of the gas market.

In an assessment of the state of competition in UK energy markets, published in March 2014, the United Kingdom energy regulator, Ofgem, highlighted the benefits that arise from the current model of (partial) vertical integration, but it also suggested that it might reduce competition in the market:

Vertical integration provides a financial hedge against volatile wholesale energy prices and a natural hedge against balancing risk. As well as having less of a requirement to trade, integrated suppliers are also likely to have stronger credit ratings, allowing them to post lower levels of collateral... We consider that vertical integration reduces the cost of capital relative to similar non-integrated businesses, because it reduces exposure to volatile market risk. Given the capital intensive nature of power generation, this could yield a significant benefit to consumers through lower prices and better security of supply.

However, we consider that vertical integration also has costs in terms of reduced competition in energy markets. Low levels of liquidity in the wholesale electricity markets, particularly for certain types of product at particular times, act as a barrier to entry for non-integrated suppliers. They also act as a barrier to expansion for those non-integrated suppliers already in the market. A lack of liquidity in the market for longer-term contracts may also inhibit the ability of independent generators to secure finance for new investment, or raise their cost of capital...

...we do not consider that the benefits of vertical integration are so clear cut...We also consider that the costs to retail competition in terms of the barriers to entry and expansion resulting from vertical integration may be significant—particularly in a market where competition is already weak...⁷⁴

Ofgem has considered full structural separation in order to remedy liquidity problems, but has instead introduced a range of measure aimed at making specific improvements to the existing regime. Further changes in terms of separation were considered potentially costly and therefore as an option of last resort. These specific measures included obligations to trade a proportion of their electricity and to share information on prices of otherwise private bilateral agreements in order to give small players good reference prices for their own transactions.

The Competition and Markets Authority is currently, at the request of Ofgem, undertaking a full market investigation into the energy market. This will include an assessment of whether vertically integrated electricity companies harm the competitive position of non-integrated firms, to the detriment of customers, either by increasing the cost of non-integrated energy suppliers or reducing the sales of non-integrated generating companies.⁷⁵ The findings of this investigation are expected in December 2015.

2.2 Natural Gas

This section provides a non-exhaustive update on experiences with structural separation in the natural gas sector for selected countries.

⁷⁴ *Ibid*, paras.1.36-1.39.

⁷⁵ CMA, *Energy Market Investigation. Updated Issues Statement*, published 18 February 2015, https://assets.digital.cabinet-office.gov.uk/media/54e378a3ed915d0cf7000001/Updated_Issues_Statement.pdf

Australia

Similar to the case in the electricity sector, structural separation has been a key feature of Australian gas markets since the 1990's, with gas distribution networks and key transmission pipelines separated from contestable elements of the supply chain and subject to independent regulation. This reform has been considered in preceding reports.

A recent government review of the eastern Australian market considered the on-going changes in the gas sector that have resulted from the shift from a solely domestic-focused market to one that is export-linked, in particular due to the advent of large-scale liquefied natural gas (LNG) projects.⁷⁶ One very visible consequence of this shift has been an increase in domestic gas prices, as the Australian market faces greater competition and influence from global gas markets. The report notes that, to date, existing gas infrastructure and the associated regulatory framework has “*arguably worked well—in recent years there has been a consistent build and redevelopment of infrastructure to meet growing demand.*”⁷⁷ Given the challenges posed by the changing focus of the gas industry in Australia, however, the report suggests that certain structural reforms or developments may be desirable, alongside increased market transparency, concluding that:

Of the infrastructure services in the gas supply chain, pipeline services have the greatest opportunities to develop in response to the significant changes occurring in the eastern gas market. While the pipeline network has been adequate to meet the demand for gas in the eastern market, it has grown incrementally as a result of individual pipelines servicing large increases in demand from specific areas, rather than with a view to maximising the efficiency and interconnectedness of the gas supply chain as a whole....

While access to efficiently priced infrastructure should not be seen as a panacea for upstream competition problems, it does affect market outcomes. It may therefore be possible to improve market fundamentals by increasing transparency around infrastructure utilisation and (in some cases) pricing.⁷⁸

Two further reviews are currently underway as part of the reform process. In December 2014 the Energy Council of the Australian governments launched a review to consider the appropriate structure, type and number of facilitated markets on the east coast. The Australian Competition Commission (ACCC) has also been directed by the Australian Government to review the competitiveness of wholesale gas prices and the structure of the upstream, processing, transportation, storage and marketing segments of the gas industry. Both reviews will conclude in early 2016.

⁷⁶ Department of Industry and Bureau of Resource and Energy Economics, *Eastern Australian Domestic Gas Market Study*, published January 2014, www.industry.gov.au/Energy/EnergyMarkets/Documents/EasternAustralianDomesticGasMarketStudy.pdf.

⁷⁷ *Ibid*, p.47.

⁷⁸ *Ibid*, p.59.

European Union

The 2011 report outlined the progressive framework for liberalisation of gas markets in the EU, which culminated in the Third Gas Directive in 2009.⁷⁹ The provisions of the Directive were due for implementation in their entirety by 3 March 2013. As of September 2014, the large majority of Member States had notified transposition measures to the Commission, although infringement proceedings remained on-going against two Member States for non- or partial-transposition of the Third Energy Package.⁸⁰ As with electricity, however, the longer term efficiency of the Commission's unbundling policy in this area has been questioned by some commentators.⁸¹

In addition, a number of antitrust cases involving natural gas incumbents are on-going before the European Commission. A high-profile investigation into alleged anti-competitive practices by Gazprom, the Russian gas company that is partly state-owned, was formally initiated in September 2012. The Commission had concerns that Gazprom might be abusing its dominant market position in upstream gas supply markets in Central and Eastern European Member States, in breach of Article 102 TFEU.⁸² As of September 2014, the investigation was suspended for political reasons, but not formally closed.⁸³ In April 2015, however, the Commission sent a formal Statement of Objections to Gazprom, alleging an overall abusive strategy that may hinder competition in the gas supply market in eight Member States (Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland and the Slovak Republic). This strategy comprises three strands of alleged abuses: the imposition of territorial restrictions in its supply agreements with wholesalers and with some industrial customers in these eight countries; the pursuance of an unfair pricing policy in five Member States (Bulgaria, Estonia, Latvia, Lithuania and Poland); and the leveraging of its dominance by making gas supplies to Bulgaria and Poland conditional on obtaining unrelated commitments from wholesalers concerning gas transport infrastructure.⁸⁴ The investigation remains on-going.

Additionally, in March 2015 the Commission sent a formal Statement of Objections to Bulgarian Energy Holdings (BEH), alongside its gas supply subsidiary Bulgargaz and its gas infrastructure subsidiary Bulgartransgaz, informing the company of the Commission's preliminary view that BEH may

⁷⁹ Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC (OJ L 211/94, 14.8.2009). See also the 2011 report, pp.28-40.

⁸⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Progress towards completing the Internal Energy Market* (COM(2014) 634 final), published 13 October 2014, at p.13.

⁸¹ See e.g. Christian Growitsch & Marcus Stronzik, "Ownership unbundling of natural gas transmission networks," 46 *Journal of Regulatory Economics* 207-225 (2014).

⁸² See European Commission Press Release IP/12/937, "Antitrust: Commission opens proceedings against Gazprom," published 4 September 2012.

⁸³ See e.g. Reuters, EU's Gazprom antitrust probe suspended, but case not closed, published 19 September 2014, <http://uk.reuters.com/article/2014/09/19/uk-eu-gazprom-antitrust-idUKKBN0HE0WR20140919>.

⁸⁴ See European Commission Press Release IP/15/4828, "Antitrust: Commission sends Statement of Objections to Gazprom for alleged abuse of dominance on Central and Eastern European gas supply markets," published 22 April 2015.

have breached EU antitrust rules by hindering competitors access to key gas infrastructures in Bulgaria.⁸⁵ BEH is the incumbent state-owned energy company in Bulgaria. It is vertically integrated: BEH supplies gas and its subsidiaries own or control the domestic Bulgarian gas transmission network, the only gas storage facility in Bulgaria and the capacity on the main gas import pipeline into Bulgaria. The Commission has concerns that BEH and its subsidiaries have refused to give competitors access to the gas transmission network and the gas storage facility, as well as reserved capacity they do not need on the gas import pipeline. The investigation remains on-going.

*Israel*⁸⁶

In September 2011, the Director General of the Israeli Antitrust Authority (IAA) announced his intention to declare the entry by Delek Drilling, Avner and Noble to the Leviathan reservoir as a restrictive arrangement prohibited by law, which had not received the prior approval of the IAA.⁸⁷ In November 2012, the Tamar gas reservoir partnership was declared as having a monopoly in the supply of natural gas starting from mid-2013. The partners involved, the Delek Group, Noble, Isramco and Dor, were declared as monopolies, both jointly and separately. Accordingly, the legal rules governing monopolies became applicable to each of those partners also in the context of additional gas reservoirs, such as Leviathan.

Following announcement of the IAA's intention to declare the entry into the Leviathan reservoir as a restrictive agreement, the parties began negotiations with the IAA. A consent decree was reached in March 2014, according to which the parties agreed to sell their holdings in other reservoirs to a new competitor, which would then be in a position to supply a substantial portion of local demand for natural gas. In December 2014, however, the IAA informed the parties that it was not prepared to submit the consent decree, which would have permitted the parties concerned to keep their holdings in both the Tamar and Leviathan gas field, to the Antitrust Tribunal for final approval. Instead, the IAA would require the parties to sell their holdings in one of these fields.⁸⁸

In May 2015, however, an inter-ministerial team—comprising representatives from the Finance Ministry, the National Economic Council and the National Infrastructure, Energy and Water Ministry—drafted a compromise arrangement, under which the Delek Group subsidiaries Delek Drilling and Avner Oil Exploration would exit the Tamar reservoir entirely, selling their assets there within six years. However, Noble Energy would only need to dilute its assets from its 36-percent share today to 25 percent, and could remain the basin's operator. Both companies would be required to sell their holdings in two much smaller offshore reservoirs, Karish and Tanin. Unlike previous drafts of the compromise agreement, this version would revoke a mandate that all Leviathan shareholders market their gas to the

⁸⁵ See European Commission Press Release IP/15/4651, “Antitrust: Commission sends Statement of Objections to Bulgarian Energy Holding and subsidiaries for suspected abuse of dominance on Bulgarian natural gas markets,” published 23 March 2015.

⁸⁶ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁸⁷ See Antitrust Authority Press Release, “General Director of Restrictive Trade Practices Considers Declaring Delek to have a Monopoly in the Supply of Natural Gas and to determine that Delek, Avner, Noble and Ratio were Sides to a Restrictive Arrangement in relation to the 'Leviathan' Joint Venture,” published 6 September 2011, www.antitrust.gov.il/eng/subject/182/item/32860.aspx.

⁸⁸ For further details, see OE Digital, “Noble suspends Israel investments, expansion,” published 20 February 2015, www.oedigital.com/component/k2/item/8295-noble-suspends-israel-investments-expansion.

Israeli market separately.⁸⁹ Although this arrangement enjoys clear governmental support, it has led to the resignation of the head of the IAA, Professor David Gilo, who has argued that the proposals are insufficient to secure competition within the market.⁹⁰

*Japan*⁹¹

In 2013, the Ministry of Economy, Trade and Industry (METI) assembled a council of experts—comprised of academics, representatives of consumers and energy experts—to discuss a revision of the Gas Business Act, which permits regional monopolies in gas retailing to households. Based on the discussions of the council, an amendment of the Gas Business Act, which enhances a transparent and fair market environment in Japan, including the full liberalisation of the retail sector⁹², was enacted in June 2015.⁹³

*Latvia*⁹⁴

The Latvian gas supply market is not connected to the gas supply system of Continental Europe, and instead all natural gas is supplied from Russia. Currently, JSC Latvijas Gāze is the only enterprise operating in the natural gas market. Under the privatisation agreement signed in 1997, Latvijas Gāze has exclusive rights for the transmission, distribution, store and trade of natural gas until 2017. Although gas market liberalisation is on-going in line with EU requirements, the “isolated market” derogation continues to apply. In order to implement the requirements of the Third Gas Directive, the domestic legislation has been amended to require accounting separation and third party access. Moreover, the deadline for separation of the distribution and transmission system operators has been set for 2017, unless the Latvian natural gas market is connected to an interconnected system of any Member State other than Estonia, Lithuania or Finland; or if the market share of the main supplier of natural gas in the Latvian market drops below 75 per cent.

*Russian Federation*⁹⁵

Under current legislation, wholesale gas transmission is a natural monopoly activity, carried out via the United Gas Supply System, regional gas supply systems, gas distribution systems and the gas distribution systems of independent organisations. The majority of these gas supply systems are owned by the Gazprom group and its affiliates. Within Gazprom, there are also a number of financially and

⁸⁹ See Jerusalem Post, “Antitrust Commissioner David Gilo to resign in August amid gas disputes,” published 25 May 2015, www.jpost.com/Business-and-Innovation/Antitrust-Commissioner-David-Gilo-to-resign-in-August-amid-gas-disputes-404017.

⁹⁰ *Ibid.*

⁹¹ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁹² See also Asia News Network, “Japan gas supply liberalisation seen in 2016, published 3 September 2013, www.asianewsnet.net/Japan-gas-supply-liberalisation-seen-in-2016-51133.html.

⁹³ Further information on the amendment is available online at: www.meti.go.jp/english/press/2015/0303_02.html.

⁹⁴ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

⁹⁵ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

organisationally independent companies involved in the extraction, transmission and sale of natural gas. Natural gas exchange trading is a competitive segment of the wholesale market, which has been structurally separated by legislation. Rules on non-discriminatory access to the gas supply system have been devised by the competition authority, the Federal Antimonopoly Service (FAS), with the aim of providing equal access to the market for all economic entities. Development of natural gas trading has led to a decrease in prices below those set by regulation, and has also given consumers the opportunity to choose their suppliers.

Turkey

As outlined in the preceding report, under the Natural Gas Market Law No.4646 of 2001, the state-owned gas transportation company, Boru Hatları ile Petrol Taşımacılığı (BOTAŞ), was scheduled to be legally unbundled by 2009. Despite the entry into force of this legislation, however, unbundling has not yet occurred. A revised draft Natural Gas Market Law is currently before the Turkish Parliament, which proposes the unbundling of BOTAS into three different legal entities, to be engaged in (i) transmission, (ii) operation of LNG terminals and storage; and (iii) trading. The proposed Law also anticipates the establishment of an autonomous Transmission System Operator to own and operate the gas transmission network. It was originally envisaged that this new structure would take effect from 1 January 2015; however, the legislative process remains on-going to date.⁹⁶

In an opinion provided on the draft law in October 2013, the Turkish Competition Authority offered its support for the legal unbundling of BOTAŞ. In order to avoid any misuse of dominance, moreover, the competition authority took the view that unbundling should be supported by an independent system operator and volume releases.⁹⁷

*Ukraine*⁹⁸

The gas market in the Ukraine is governed by the law on the Principles of the Functioning of the Nature Gas Market, which incorporates the following principles: free choice of gas suppliers by consumers; equal opportunity for customers to access gas grids; free trade in natural gas; protection of the rights and interests of natural gas consumers; and sanctions for violation of the rules of the natural gas market. This law also establishes structural separation: any gas transmission company is prohibited from carrying out activities of production or supply of natural gas, while any gas distribution company cannot carry out activities of production, supply, storage or transportation of natural gas. Where a gas transmission or distribution company is part of a vertically integrated business, it must be: legally and organisationally independent from the other activities of that business; and autonomous in terms of its decision-making on current financial operations, maintenance, construction and modernisation of its networks. Gas transportation and distribution companies prepare an annual report outlining the provisions for separation and independence of their businesses, which is submitted to the state regulator

⁹⁶ See Deger Boden, “Turkey: On the way to becoming an energy hub”, published 3 June 2014, www.iflr1000.com/NewsAndAnalysis/Turkey-on-the-way-to-becoming-an-energy-hub/Index/637; and Mondaq, “Turkey: 2014 Overview of Turkish Oil and Natural Gas Legislation,” published 12 May 2014, www.mondaq.com/x/312672/Oil+Gas+Electricity/2014+Overview+Of+Turkish+Oil+And+Natural+Gas+Legislation.

⁹⁷ See Deger Boden, “Turkey: On the way to becoming an energy hub”, published 3 June 2014, www.iflr1000.com/NewsAndAnalysis/Turkey-on-the-way-to-becoming-an-energy-hub/Index/637.

⁹⁸ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

for monitoring and publication. Under the existing legislative framework, separation of the activities within the gas sector was due to be completed by 1 January 2015.

2.3 Rail

This section provides a non-exhaustive update on experiences with structural separation in the rail sector. The effectiveness of structural separation in this context is disputed. A 2003 study by Mizutani and Uranishi, for instance, surveyed 30 railway organisations across 23 European and East Asian OECD Members, from 1994 to 1997. Their survey suggests that horizontal separation tends to reduce railway costs, whereas, with vertical separation, effects change according to the train density of the railway organisation. Where there is lower train density, vertical separation tends to reduce costs, whereas with high train density vertical separation increases cost. In line with the Recommendation, the authors therefore suggest that a blanket policy requiring vertical separation may be unwise, insofar as it may lead to more costly outcomes in certain markets.⁹⁹

Australia

As described in the preceding report, structural separation has been pursued extensively with respect to the rail sector in Australia. The recent Australian Government review of competition policy summarises the existing position as follows:

*The main interstate freight network was brought together under the ownership of the Australian Rail Track Corporation, while above-rail freight operations have been privatised. Jurisdictions have access regimes in place for regional freight lines. Although competition in above-rail services has emerged on some routes, on many others volumes have been too low to support competitive entry. Parts of the rail freight sector faces strong competition from road transport.*¹⁰⁰

The review notes that the reforms in the rail sector have largely met the objectives of the country's National Competition Policy. Regulatory oversight appears to have addressed concerns about possible monopoly pricing, and has generally promoted competition and entry. Moreover, intermodal competition—particularly road transport—can act as an effective competitive constraint on parts of the rail freight sector, and has reduced the need for heavy-handed regulation in the rail sector. However, the complexity of operating under multiple access regimes was criticised by some market participants.¹⁰¹

An interesting argument raised in some of the submissions received by the review panel suggested that structural separation has been imposed in some instances where above-rail competition has not and is not likely to emerge. The recommendation in response is that, “Regulators and policy-makers should be pragmatic about structural separation of railways, recognising that on some low-volume rail routes vertical integration may be preferable.”¹⁰²

⁹⁹ Fumitoshi Mizutani and Shuji Uranishi, “Does vertical separation reduce cost? An empirical analysis of the rail industry in European and East Asian OECD Countries,” 43 *Journal of Regulatory Economics* 31-59 (2013), particularly pp.56-57.

¹⁰⁰ *The Australian Government Competition Policy Review*, Report March 2015, pp.191-192.

¹⁰¹ *Ibid*, p.221.

¹⁰² *Ibid*, p.134.

As described in the preceding report, two rail services have been declared pursuant to Australia's unique National Access Regime (NAR) under Part IIIA of the CCA 2010: these are the Tasmanian railway network, declared in 2007; and the Goldsworthy iron ore railway in the Pilbara, declared in 2008.¹⁰³ The NAR under Part IIIA has been subject to considerable scrutiny in recent years, including by the High Court of Australia in the *Pilbara Infrastructure* case,¹⁰⁴ the Productivity Commission,¹⁰⁵ and the recently-concluded governmental review of competition policy.¹⁰⁶ Apart from declarations, Part IIIA also enables the ACCC to accept access undertakings from service providers. The ACCC has accepted access undertakings from the Australian Rail Track Corporation (ARTC) on its Hunter Valley Rail Network and its Interstate Rail Network. These access undertakings cover the terms and conditions of access for parties seeking to run trains on these rail networks owned or leased by ARTC. The Australian Government has announced that it will undertake a scoping study in 2015-16 on options for the future management, operations and ownership of ARTC.¹⁰⁷

European Union

The 2011 report discussed the efforts to date at EU-level towards vertical separation between railway undertakings providing transport services and rail infrastructure managers, which have, moreover, been the primary driver of structural separation at EU Member State level.¹⁰⁸

The process began with Council Directive 91/440/EEC of 29 July 1991 on the development of the Community's railways, which mandated accounting separation between railway undertakings and infrastructure managers and a requirement of access to infrastructure under equitable conditions for undertakings providing international passenger and/or freight transport services.¹⁰⁹

The First Railway Package of 2001 expanded this regime, strengthening requirements for, *inter alia*, access to infrastructure on a non-discriminatory basis, accounting separation, non-discriminatory licensing of railway undertakings, non-discriminatory access to related services, capacity allocation and setting of charges for access to infrastructure.¹¹⁰

¹⁰³ *Ibid*, p.212.

¹⁰⁴ *Pilbara Infrastructure Pty Ltd v Australian Competition Tribunal* (2012) 246 CLR 379.

¹⁰⁵ Productivity Commission, *National Access Regime*, Inquiry Report No.66, published October 2013.

¹⁰⁶ *The Australian Government Competition Policy Review*, Report March 2015.

¹⁰⁷ Australian Government, *Budget 2015 – Budget Paper No. 2: Budget Measures 2015-16*, 12 May 2015.

¹⁰⁸ 2011 report, pp.93-96.

¹⁰⁹ OJ C 237/25, 24.8.1991.

¹¹⁰ See Directive 2001/12/EC of the European Parliament and of the Council of 26 February 2001 amending Council Directive 91/440/EEC on the development of the Community's railways (OJ L 75/1, 15.3.2001); Directive 2001/13/EC of the European parliament and of the Council of 26 February 2001 amending Council Directive 95/18/EC on the licensing of railway undertakings (OJ L 75/26, 15.3.2001); and Directive 2001/14/EC of the European Parliament and of the Council of 26 February 2001 on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (OJ L75/29, 15.3.2001).

The Second Railway Package of 2004 included requirements for the mandatory opening of the market for international freight services to competition from January 2006 onwards, and the market for international passenger services to competition from January 2010 onwards.¹¹¹

The Third Railway Package adopted in October 2007 introduced open access rights for international rail passenger services, including cabotage, by 2010.¹¹² A report from the Commission issued in January 2013, however, noted the relatively limited uptake of this right in practice. It attributed these limitations to late and often restrictive implementation by Member States, alongside the fact that there are few international destinations with traffic flows strong enough to enable operators to introduce economically viable new services.¹¹³

The First Railway Package was subsequently “recast” in a single piece of legislation, Directive 2012/34/EU,¹¹⁴ enacted in November 2012, which seeks to simplify, clarify and underpin the existing agreement. The new Directive, which must be implemented by Member States by June 2015, thus replaces the existing provisions of the First Railway Package whilst strengthening its requirements. In particular, the recast Directive requires, or reinforces the need for:

- Independence of railway undertakings and infrastructure managers (Articles 4 and 7);
- Management of railway undertakings according to commercial principles (Article 5);
- Where integrated undertakings continue to exist, accounting separation for business relating to the provision of transport services by railway undertakings on the one hand, and for business relating to the management of railway infrastructure, on the other (Article 6);
- Non-discriminatory access to railway infrastructure and services (Articles 10 and 13);
- Effective use of infrastructure capacity alongside non-discriminatory allocation of capacity (Articles 26 and 29); and
- An enhanced role for national rail regulators (Article 55-57).

¹¹¹ See Directive 2004/51/EC of the European Council and of the Parliament of 29 April 2004 amending Council Directive 91/440/EEC on the development of the Community's railways (OJ L 164/164, 30.4.2004); and Directive 2007/58/EC of the European Parliament and of the Council of 23 October 2007 amending Council Directive 91/440/EEC on the development of the Community's railways and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure (OJ L 315/44, 3.1.2007).

¹¹² See, in particular, Directive 2007/58/EC of the European Parliament and of the Council of 23 October 2007 amending Council Directive 91/440/EEC on the development of the Community's railways and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure (OJ L 315/44, 3.12.2007).

¹¹³ Report from the Commission to the European Parliament, the Council, and European Economic and Social Committee and the Committee of the Regions on the implementation of the provisions of Directive 2007/58/EC on the opening of the market of international rail passenger transport accompanying the Communication to the Council and the European Parliament on the fourth Railway Package (COM(2013) 34 final), published 30 January 2013.

¹¹⁴ Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area (OJ L 343/32, 14.12.2012).

More recently, in January 2013, the Commission announced even more ambitious plans for further disaggregation of existing vertically integrated railway undertakings within the EU, alongside concomitant efforts to encourage greater integration of European railway markets. The proposed “fourth railway package” would have comprised measures addressing standardisation of technical standards, improved safety, workforce issues, and, more controversially, reorganisation of infrastructure governance and the opening of the market for domestic passenger transport services by rail.¹¹⁵

Of particular interest for these purposes was the proposal to require legal/functional separation—although not full ownership separation—between rail infrastructure managers and railway undertakings, in order to address the perceived “conflict of interests” that an infrastructure manager may face where it is part of a vertically integrated rail undertaking.¹¹⁶ Specifically, it was proposed to require that, “*To guarantee the independence of the infrastructure manager, Member States shall ensure that infrastructure managers are organised in an entity that is legally distinct from any railway undertaking.*”¹¹⁷ Although this would not preclude the retention of both the railway undertaking and infrastructure manager in public ownership, it would mean that the two or more public authorities concerned would be “separate and legally distinct”.¹¹⁸ Where legally distinct entities remained within the same vertically-integrated undertaking (i.e. in the absence of full ownership unbundling), the proposed Directive would require fairly rigid separation between the activities of the two entities, including prohibitions on cross-shareholding and cross-subsidisations.¹¹⁹

In setting out its proposal, the Commission had taken the view that:

*Existing separation requirements do not prevent conflicts of interest, and functions not currently defined as essential (such as investment planning, financing and maintenance) have resulted in discrimination against some new entrants.*¹²⁰

It suggested, moreover, that existing separation requirements had proven difficult both to transpose and enforce, and that the current framework provided few incentives for European and intermodal

¹¹⁵ The proposal is discussed, generally, in the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on “The Fourth Railway Package—Completing the Single European Railway Area to Foster European Competitiveness and Growth” (COM(2013) 25 final), published 30 January 2013. See also Oxera *Agenda*: “The Fourth European Railway Package: does one size fit all?”, November 2013, www.oxera.com/Latest-Thinking/Agenda/2013/The-Fourth-European-Railway-Package-does-one-size.aspx, for an overview of the proposed changes.

¹¹⁶ Proposal for a Directive of the European Parliament and of the Council amending Directive 2012/34/EU of the European Parliament and of the Council of 21 November 2012 establishing a single European railway area, as regards the opening of the market for domestic passenger transport services by rail and the governance of the railway infrastructure [COM(2013) 29 final], published 30 January 2013, p.3.

¹¹⁷ Ibid, p.11.

¹¹⁸ Ibid, pp.11-12.

¹¹⁹ Ibid, p.12.

¹²⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on “The Fourth Railway Package—Completing the Single European Railway Area to Foster European Competitiveness and Growth” [COM(2013) 25 final], published 30 January 2013, p.5.

cooperation.¹²¹ The proposal acknowledged the criticism that existing arrangements can result in inefficient operations and inappropriate long term investment decisions. Nonetheless, the Commission rejected the argument that the existing evidence demonstrates that structural separation is *necessarily* inefficient, arguing instead that such evidence pointed to the need for strengthened powers of infrastructure managers, to have responsibility for long term investment planning, through timetabling and real-time train management to maintenance.¹²²

In tandem with the proposal to strengthen vertical separation of railway undertakings within the EU, the Commission also proposed to introduce mandatory competitive tendering for (usually, state-subsidised) domestic passenger rail services, in order to introduce at least competition “for the market” in this area.¹²³

Whilst the so-called “technical pillar” of the proposed Fourth Railway Package is relatively uncontroversial, the Commission has faced considerable criticism and opposition to the “market pillar,” namely those aspects that (are perceived to) aim at greater liberalisation, and, potentially, privatisation of rail service provision.¹²⁴ Whilst largely supported by public transport authorities,¹²⁵ the proposals have been opposed by, amongst others, larger railway companies¹²⁶ and rail worker unions. In February 2014, the European Parliament voted to amend or discard significant elements of the “market pillar” during its first Reading of the proposed Package, watering down proposals for both compulsory tendering and mandatory legal separation.¹²⁷ The issue has yet to be resolved with the Council, which supported the initial proposal, although there has been a suggestion that the technical and market components might be uncoupled for legislative purposes, and thus pursued separately.

The Directorate-General for Competition, the antitrust division of the European Commission, has also pursued several investigations into alleged breaches of dominance by incumbent railway operators

¹²¹ Ibid.

¹²² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on “The Fourth Railway Package—Completing the Single European Railway Area to Foster European Competitiveness and Growth” [COM(2013) 25 final], published 30 January 2013, p.5.

¹²³ European Commission, Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EC) No 1370/2007 concerning the opening of the market for domestic passenger transport services by rail (COM(2013) 28 final), published 30 January 2013.

¹²⁴ See e.g. James Abbott, “Is the 4th Railway Package in trouble?” *European Railway Review* Issue 2 (2014), www.europeanrailwayreview.com/20368/err-magazine/past-issues/issue-2-2014/introduction-is-the-4th-railway-package-in-trouble/.

¹²⁵ See e.g. Practical Law, “Council announces political agreement on “technical pillar” of Fourth Railway Package,” published 5 June 2014, <http://uk.practicallaw.com/0-570-3839>.

¹²⁶ See e.g. CER Press Release, “European Parliament paves the way for the future of a healthy European railway sector,” published Brussels, 26 February 2014, www.cer.be/press/press-releases/press-releases/european-parliament-paves-the-way-for-the-future-of-a-healthy-european-railway-sector/.

¹²⁷ See e.g. EurActiv, “MEPs vote in change to fourth railway package,” published 27 February 2014, www.euractiv.com/transport/parliament-votes-changes-fourth-news-533796, and Railway Gazette, “European Parliament waters down unbundling proposals,” published 26 February 2014, www.railwaygazette.com/news/policy/single-view/view/european-parliament-waters-down-unbundling-proposals.html.

in the EU, contrary to Article 102 TFEU. In both recent cases, the alleged abusive conduct has related directly to the vertically integrated structure of the defendant undertaking.

In *Deutsche Bahn*, the European Commission accepted legally binding commitments from the German rail incumbent to modify its pricing policies for traction current, which, according to the preliminary case theory, had previously had the effect of excluding competing suppliers of traction current from the German market, to the advantage of the incumbent's own subsidiary company.¹²⁸

The *Baltic Rail* case concerns an on-going investigation into an alleged breach of Article 102 TFEU by the Lithuanian rail incumbent, AB Lietuvos geležinkeliai, which, by dismantling a railway track running between Lithuania and Latvia, potentially limited international freight transport between these countries.¹²⁹

A formal Statement of Objections has been issued by the European Commission in this case.¹³⁰

France

The French competition authority, the *Autorité de la Concurrence* (hereafter the “Autorité”), has jurisdiction within the rail sector, and has been active in enforcing the competition rules within this area. In October 2014, for instance, it accepted commitments from the incumbent rail operator, SNCF, to end an investigation into alleged discriminatory treatment of travel agencies that competed with its own subsidiary, *voyages-sncf.com*. The commitments comprised, *inter alia*, guarantees of greater confidentiality and non-discriminatory treatment in its relationships with other travel agencies.¹³¹

In 2012, the *Autorité* had actually sanctioned SNCF, imposing a fine of EUR 60.9 million for various anti-competitive practices after opening of the French rail freight market in 2006. As delegated infrastructure manager, SNCF collected confidential information on the requests of train paths submitted by its competitors and used it in the commercial interest of its freight subsidiary, SNCF Fret.¹³² The decision of the *Autorité* was modified by a Paris Court of Appeal decision of 6 November 2014,

¹²⁸ See Summary of Commission Decision of 18 December 2013 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union (Case AT.39678/AT.39731—*Deutsche Bahn I/II*) (OJ C 86/4, 25.3.2014).

¹²⁹ See European Commission Press Release Antitrust: Commission opens formal proceedings against the Lithuanian railway incumbent, AB Lietuvos geležinkeliai, published Brussels, 6 March 2013, http://europa.eu/rapid/press-release_IP-13-197_en.htm.

¹³⁰ See European Commission Press Release, “Antitrust: Antitrust: Commission sends statement of objections to the Lithuanian railway incumbent AB Lietuvos geležinkeliai”, published 5 January 2015, http://europa.eu/rapid/press-release_IP-15-2940_en.htm.

¹³¹ See European Competition Network, *ECN Brief* 03/2014, pp.9-10, and French Competition Authority, The French Competition Authority accepts commitments from a railway company in the distribution of train tickets market (SNCF and *voyages-sncf.com*), 2 October 2014, *Bulletin e-Competitions* October 2014, Art. N° 69345.

¹³² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *The Fourth Railway Package—Completing the Single European Railway Area to Foster European Competitiveness and Growth* (COM(2013) 25 final), published 30 January 2013; see also International Rail Journal, “SNCF fined EUR 60.9m for anti-competitive behaviour,” published 12 December 2012, www.railjournal.com/index.php/freight/sncf-fined-%E2%82%AC609m-for-anti-competitive-behaviour.html.

confirming that the practices for which Fret SNCF was accused could be considered anti-competitive practices, except with respect to the price of eviction. The court reduced the sanction of EUR 60.9 million to EUR 48.1 million. The decision by the Court of Appeal is itself under appeal to the Cour de Cassation.¹³³

In January 2015, the *Autorité* issued an unfavourable opinion regarding a series of implementing decrees of a 2014 legislation reforming the governance of the rail sector.¹³⁴ In its opinion on four proposed decrees, the *Autorité* took the view that the draft measures were too focused on industrial policy goals relating to the integration of the French railway system, at the expense of competition and the possibility of facilitating access through greater neutrality and transparency. The measures did not provide sufficient guarantees of independent operations of the rail infrastructure within a vertically integrated structure of rail network and services. This raised the possibility that the principle of non-discriminatory access to infrastructure would not be respected, and might, in the opinion of the *Autorité*, bring French law into conflict with EU obligations. Whilst a number of recommendations made by the *Autorité* at an earlier consultation stage were incorporated in the final draft decrees, it nonetheless suggested significant further adjustments to the proposed measures should be made before enactment. These include provisions to secure greater independence for the infrastructure manager, particularly in its relationship with SNCF; as well as strengthened oversight powers for the sector regulator, the *Autorité de régulation des activités ferroviaires (ARAFER)*.

Italy

The Italian Competition Authority (AGCM) has been proactive in terms of pursuing claims of anticompetitive conduct lodged against the incumbent railway operator, Ferrovie dello Stato (FS), along with its network operator subsidiary, RFI, and transport services subsidiary, Trenitalia. In 2012, AGCM imposed a fine of EUR 300,000 on FS after finding that the company, through RFI and Trenitalia, had maintained a complex and unified strategy to keep Arenaways, a would-be competitor that was bankrupt by the time of the decision, out of the profitable route between Milan and Turin between 2008 and 2011. The abuses at issue consisted of delays by RFI in processing train path allocation requests from firms not affiliated with the FS group; and the provision of misleading information for costs accounting for regulatory purposes. The AGCM found that these practices were clearly exclusionary in nature, and had deprived train customers of the benefits of competition by excluding rivals from a high-traffic market.¹³⁵

In May 2013, the AGCM launched another investigation against FS, following a further complaint from a rival train services operator, NTV. (An earlier complaint and investigation involving the same rival firm was concluded by commitments in 2009, and was discussed in the preceding report.) The alleged abuses at issue consisted of an exclusionary strategy carried on against NTV by the FS group in relation to access to the national railway infrastructure, the management of advertising space in the main Italian stations, and in the market for high-speed rail transport of passengers. This case was similarly concluded by commitments in March 2014, without any finding of infringement. Instead, FS and its subsidiaries committed to: provide relevant signage within train stations to allow travellers to identify the

¹³³ President of the *Autorité de la concurrence* vs. SNCF, Cour de cassation (commercial, financial and economic chamber), appeal no. M 14-28.862.

¹³⁴ *Autorité de la concurrence, Avis n°15-A-01 du 6 janvier 2015 relatif à des projets de décrets pris pour l'application de la loi portant réforme ferroviaire*, www.autoritedelaconcurrence.fr/pdf/avis/15a01.pdf. See also Global Competition Review, “French authority criticizes railways reform,” published 13 January 2015.

¹³⁵ European Competition Network, *ECN Brief* 04/2012, pp.37-38.

specific services provided by individual rail operators; provide determined areas for mobile desks and visible self-service ticket offices for competitors; provide advertising space to NTV within various train stations; reduce fees for network access by 15% for all railway undertakings; and grant NTV its requested path allocations for a one-year period. Simultaneously, the AGCM chose to open two investigations against Trenitalia for alleged breaches of consumer protection rules.¹³⁶

*Latvia*¹³⁷

JSC Latvijas dzelzceļš (LDz) is the main state-owned railway company in Latvia, the owner of both the public railway infrastructure and a railway undertaking, LLC LDz Cargo. In order to ensure the independent operation of certain core functions such as capacity allocation and the setting of infrastructure access charges, these are performed by a separate company, JSC LatRailNet, belonging to the LDz group. The performance of LatRailNet is regulated and monitored by the rail regulator, the State Railway Administration. Passenger rail services are provided by a separate state-owned carrier, JSC Pasažieru vilciens, apart from a short (32km) regional narrow gauge line that is operated by a private undertaking with local municipality participation. There is no competition in the passenger market due to a lack of economic feasibility, although the law does not create any such restrictions. Three railway undertakings operate in the freight rail sector: LDz Cargo, and two private companies, both of which have a market share of about 20% in tonne-kilometre terms. International traffic routes towards Russia and Belarus are operated by LDz Cargo.

Mexico

Since the privatisation of the Mexican railway system in 1995, provision of railway services has been performed by two (originally three) private sector companies that operate under government concessions (now, Ferromex and Kansas City Southern de Mexico). Although ownership of the physical infrastructure remains vested in the central government, the concessionaires have exclusive control of this infrastructure. Moreover, this arrangement reflects a deliberate policy choice *against* structural separation in this instance. Freight comprises the great majority of rail transport in Mexico at present.¹³⁸ Reflecting the growing popularity of passenger rail transport, however, in 2014 plans for an ambitious high-speed rail project that would once again involve the Mexican government in the provision of rail services were announced by the Ministry of Communications and Transportation ('SCT'). Occurring under the auspices of the 2013-2018 Transport and Communications Infrastructure Investments Program, the SCT had specifically envisaged a public-private partnership model for the development of this new rail infrastructure.¹³⁹ The project has faced a number of difficulties, however, including an unsuccessful

¹³⁶ See Autorità Garante della Concorrenza e del Mercato Press Release, "Rail Transport: the Competition Authority agrees with commitments of the FS Group to provide more information for rail travelers about competitors, who will have simpler access to the Railways", published 12 March 2014.

¹³⁷ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

¹³⁸ See International Transport Forum, *Peer Review of Railway Freight Development in Mexico*, February 2014, www.internationaltransportforum.org/jtrc/peer-review/mexico-freight-rail.pdf.

¹³⁹ For further details, see Lexology, "Recent Developments regarding Mexico passenger railway systems for 2014," published 28 February 2014, www.lexology.com/library/detail.aspx?g=d6cea711-9656-4a5c-b605-349bef890b44.

initial tender which resulted in only a single qualified applicant, followed by financial difficulties that have seen the project suspended indefinitely.¹⁴⁰

Russian Federation¹⁴¹

The Russian rail sector has been subject to a degree of structural reform. The current legislation differentiates between “operators” and “carriers”. Operators own rolling stock and arrange transport, but do not run their own locomotives or trains; carriers actually own their own locomotives and run their own trains on the RZhD (state-owned rail company) track. Currently the system is open to competition amongst operators; it is to some degree open to competition among passenger carriers; however, it is not open to competition amongst freight carriers, which compromise the most important category of rail transport in Russia today.¹⁴²

With respect to passenger rail transport, market-based pricing methods are applied, including the introduction of “dynamic model” pricing within separate deregulated segments. This allows the price of journeys to be set taking into account the pace of sales of tickets, forecast of demand for all transportation segments, actions of competitors and other market factors. The programme is used on routes with intermodal competition, for example the carriage of passengers by rail, road and air, and aims to stimulate competition between different transportation methods. Dynamic pricing has resulted in an overall increase in passenger numbers and revenues, albeit with a decrease in average revenues per passenger. About 83 per cent of passengers now buy their tickets at a cost below or at the level of tariffs that were in force before the introduction of dynamic pricing.

In order to build a transparent system of relations between the participants of the transportation process, the competition authority, the Federal Antimonopoly Service, has begun to create a commercial market infrastructure (CMI), with the involvement of participants of freight rail services. CMI is intended to operate as an effective mechanism for co-regulation of provision of services for the carriage of goods, providing non-discriminatory access to infrastructure. It also aims to be a mechanism for protection and development of competition in this market, as well as for adequate technical, tariff and antimonopoly regulation of product markets in the sphere of rail transport.

Turkey

Türkiye Cumhuriyeti Devlet Demiryolları (TCDD) is the established state-owned incumbent railway company in Turkey. It has, historically, been fully vertically integrated, with responsibility for infrastructure construction, maintenance and operation, in addition to the provision of rail services for both passenger and freight. On 1 May 2013, however, the Law regarding the Liberalization of Railway Transportation in Turkey (No. 6461) came into force, which aims to liberalise the Turkish rail market by, *inter alia*, effecting a degree of legal unbundling of TCDD. Specifically, Law No. 6461 ends the provision of rail services by TCDD, which instead will concentrate on its infrastructure ownership and

¹⁴⁰ See Bloomberg, China Rail Stocks Sink After Mexico Shelves High-Speed Rail Line, published 2 February 2015, www.bloomberg.com/news/articles/2015-02-02/china-rail-stocks-sink-after-mexico-shelves-high-speed-rail-line.

¹⁴¹ Much of the information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

¹⁴² See Russell Pittman, “Blame the Switchman? Russian Railways Restructuring after Ten Years” in Michael Alexeev and Shlomo Weber (eds.), *The Oxford Handbook of the Russian Economy*, OUP USA, New York (2013).

management roles. A new affiliate company of TCDD is to be created, TCDD Taşımacılık A.Ş., which will be responsible for the provision of rail services.¹⁴³ Contrary to some of the criticisms levelled against unbundling in the EU context, a key motivation for unbundling in this instance has been the need to attract large-scale private sector investment in the Turkish railway sector.¹⁴⁴

*Ukraine*¹⁴⁵

In December 2009, the Cabinet of Ministers of the Ukraine approved a state target programme for 2010-2019 that aims to reform rail transport in the country. A key objective is to promote competition in rail transportation, particularly passenger transport in the first instance. The programme thus requires, *inter alia*: separation of economic and governance functions; formation of a public joint stock company as the national carrier of goods and passengers in the transport services market, which will also hold the railway infrastructure; vertical separation of discrete activities, including rail services, and maintenance and operation of infrastructure; and increased levels of competition through equal market access guarantees in competitive, potentially competitive and adjacent markets.

*United Kingdom*¹⁴⁶

As described in the preceding report,¹⁴⁷ following privatisation of the railway industry in 1993, there has been structural separation of tracks and infrastructure from passenger train operators. The infrastructure is currently owned and operated as a monopoly by Network Rail, which, since 1 September 2014, has been classified as a central government body. The majority of passenger train operators are franchises, granted by the Government for a specified period to operate passenger train services on a major route, set of routes or in a particular region.

The United Kingdom's submission to the 2014 OECD meeting on structural separation noted that there has been some discontent with the structure of the United Kingdom rail sector. Arguments have been made that the separation of train and track has reduced investment in the network, insofar as a train operator with control over the infrastructure would have an incentive to ensure that it works, and is maintained, more efficiently. The time-limited nature of franchises may also create instability in the system, and further reduce incentives to invest. Although separation of train and track is being formally maintained, there are moves to minimise its disadvantages through greater alignment and collaboration. In January 2012, Network Rail announced its plans to form a number of "alliances" in order "to work more closely with at least six train operators in order to deliver passenger benefits more quickly."¹⁴⁸ An alliance between Network Rail and South West Trains announced in April 2012, for instance, has been

¹⁴³ See Cakmak Avukatlık Burosu, "Liberalization of Turkish Railway Sector", published 3 May 2013, www.cakmak.av.tr/articles/Construction_Infrastructure/Liberalization%20of%20Turkish%20Railway%20Sector_01.pdf.

¹⁴⁴ Ibid; see also Didem Ataun, "Turkey: High Speed and Fair Price in Turkish Railways!", 5 June 2013, www.mondaq.com/x/237166/cycling+rail+road/High+Speed+And+Fair+Price+In+Turkish+Railways.

¹⁴⁵ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

¹⁴⁶ Some of the information in the section as provided by the country in its submission to the 2014 OECD meeting on structural separation.

¹⁴⁷ 2011 report, pp.105-107.

¹⁴⁸ See Network Rail Press Release, *Passengers to Benefit from New Alliances with Train Operators*, published 23 January 2012, www.networkrail.co.uk/alliance-framework.aspx.

achieved through a single senior joint management teams that has responsibility for delivering improvements including track works, signalling and telecommunications. This is the first time since the break-up of British Rail that managers have been responsible for both rail infrastructure and the running of trains. In July 2012, an alliance between Network Rail and ScotRail was announced, including a GBP 12 million joint investment project to electrify the route between Glasgow Central and Paisley Canal. The cost of the project is significantly reduced from the original estimate, partly due to the waiver by ScotRail of its usual compensation claims for disruption.

2.4 Telecommunications

This section provides a non-exhaustive update on experiences with structural separation in the telecommunications sector. The extent to which unbundling and forms of structural separation have been beneficial in the context of the telecommunications sector is, again, a disputed issue here, particularly in view of the large-scale investment currently required in many countries in order to move towards fibre-based “next-generation” networks.¹⁴⁹

Australia

The preceding report outlined the early stages of two important developments in Australia: the construction of a publicly funded “National Broadband Network” (NBN), and the potential structural separation of the privatised incumbent telecommunications operator, Telstra.

First, the NBN is a country-wide project to upgrade the existing fixed line telephone and internet network infrastructure, with the primary aim of providing access to a minimum level of broadband services to homes and businesses throughout the country.¹⁵⁰ The NBN Co., a wholly Government-owned business enterprise, was established in April 2009 to design, build and operate the NBN. The current Statement of Expectations set by the Shareholder Ministers of the NBN Co. sets out its key policy objectives as:

...ensuring all Australians have access to very fast broadband as soon as possible, at affordable prices, and at least cost to taxpayers.

¹⁴⁹ Compare, e.g., Pedro Pereira & Tiago Ribeiro, “The impact on broadband access to the internet of the dual ownership of telephone and cable networks,” 29 *International Journal of Industrial Organisation* 283-293 (2011); Robert W. Crandall, Jeffrey A. Eisenach & Allan T. Ingraham, “The long-run effects of copper-loop unbundling and the implications for fiber,” 37 *Telecommunications Policy* 262-281 (2013); Jan Krämer & Daniel Schnurr, “A unified framework for open access regulation of telecommunications infrastructure: Review of the economic literature and policy guidelines,” 38 *Telecommunications Policy* 1160-1179 (2014); Duarte Brito, Pedro Periera & Joao Vareda, “An assessment of the equality of access and no-regulation approaches to next generation networks,” 35 *Telecommunications Policy* 818-826 (2011); John M. Paleologos & Michael L. Polemis, “What drives investment in the telecommunications sector? Some lessons from OECD countries,” 31 *Economic Modelling* 49-57 (2013); Paolo Mancuso, “Regulation and efficiency in transition: The case of telecommunications in Italy,” 135 *International Journal of Production Economics* 762-770 (2012); and Bronwyn Howell, “Separation Anxieties: Structural Separation and Technological Diffusion in Nascent Fibre Networks,” 2014 *TPRC Conference Paper*, published August 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418599

¹⁵⁰ Further information is available online at the NBN Co.’s website at www.nbnco.com.au/about-the-nbn.html. See also the discussion in Grace Li, “The return of public investment in telecommunications: Assessing the early challenges of the national broadband network policy in Australia,” 28 *Computer Law & Security Review* 220-230 (2012).

To achieve these objectives the NBN should be built in a cost-effective way using the technology best matched to each area of Australia. This Statement of Expectations provides NBN Co. with flexibility and discretion in operational, technology and network design decisions, within the constraints of a public equity capital limit of \$29.5 billion...

The Government intends the NBN to be a wholesale-only access network, available on equivalent terms to all access seekers, that operates at the lowest possible levels in its network slack.¹⁵¹

A trial rollout of NBN infrastructure began in Tasmania in 2010, and has subsequently been extended to numerous other mainland sites. Although the initial plan was to run fibre optic cable to almost every Australian home, as a result of a policy shift that followed a change of Government in 2013, a multi-technology mix model is now envisaged, potentially involving fibre to the home (FTTH), fibre to the node (FTTN) and hybrid-fibre coaxial solutions.¹⁵² To date, uptake has been fairly rapid with uptake rates of 30-40% of premises passed claimed to be connected to the network as of 2015. The relatively high uptake of NBN services is primarily driven by the mandatory disconnection of telephone and broadband services from Telstra and Optus' legacy networks 18 months from the date that NBN services become available in an NBN rollout area. It has also been suggested that a significant explanation for the rapidity of take-up relates to the compensatory payments made to the owners of the incumbent copper and fibre networks—Telstra and Optus, respectively—who are compensated for each customer that transitions from the legacy networks to the NBN. These payments generate strong incentives for the incumbents, in their guise as retailers, to promote rapid substitution to the new network.¹⁵³ Such incentives come at significant additional cost to the NBN rollout, however, and it has been argued that such incentives would in fact be unnecessary to induce an unregulated operator to invest in similar infrastructure.¹⁵⁴

A recent independent cost-benefit analysis of the NBN scheme confirmed that there are significant economic benefits to be garnered from increasing broadband speeds in Australia from their current levels.¹⁵⁵ The report suggested, however, that the greatest benefits are to be gained from an unsubsidised rollout, that is the provision of infrastructure by the NBN Co. only where this could be done without government subsidy (i.e. where rollout decisions are made solely on the basis of costs, and the rate of return sought is equal to the NBN specific cost of capital).

¹⁵¹ See the Shareholder Statement of Expectations issued to the NBN Co., dated 8 April 2014, available on the NBN Co.'s website at www1.nbnco.com.au/content/dam/nbnco2/documents/SOE-Shareholder-Minister-letter.pdf.

¹⁵² See Commonwealth of Australia, *Implementation of the National Broadband Network. Migration Assurance Policy. Consultation Paper*, published September 2014.

¹⁵³ Bronwyn Howell, "Separation Anxieties: Structural Separation and Technological Diffusion in Nascent Fibre Networks," *2014 TPRC Conference Paper*, published August 2014, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2418599, at p.13.

¹⁵⁴ Ibid, p.14.

¹⁵⁵ See Independent cost-benefit analysis of broadband and review of regulation, *Volume II: The costs and benefits of high speed broadband*, published August 2014, www.communications.gov.au/_data/assets/pdf_file/0003/243039/Cost-Benefit-Analysis-FINAL-For-Publication.pdf.

Second, in tandem with the development of the NBN, the privatised telecommunications incumbent in Australia, Telstra, has submitted to voluntary structural separation of its retail service and network businesses. The structural separation of Telstra had been mooted for some time.¹⁵⁶ The recent Australian government review of competition policy suggested that the privatisation of Telstra as a vertically integrated undertaking, coupled with inadequate access arrangements, had had the effect of diminishing competition in fixed-line retail sectors—although it also noted that it was dissatisfaction with existing arrangements which led Optus to engage in systems competition by building its own hybrid fibre-coaxial network.¹⁵⁷ The *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010*, passed in November 2010, amended the *Telecommunications Act 1997* to create a framework for Telstra to implement functional separation or to voluntarily structurally separate by submitting an structural separation undertaking (SSU).

In July 2011, Telstra lodged a draft SSU and migration plan with the ACCC. The proposed structural separation model adopted a migration model, whereby Telstra would cease to use its own fixed line access networks and would instead use the wholesale-only NBN to supply downstream services. Thus, the structural reforms would be progressively implemented as the NBN fibre access network was built, and so the SSU specified a range of measures that would apply to Telstra's supply of fixed line access services to its wholesale customers during the interim period that were intended to promote equivalence and transparency in Telstra's supply of services to wholesale customers and its retail businesses. The SSU also specified measures to enable the ACCC to monitor Telstra's compliance with its various commitments.¹⁵⁸ The ACCC conducted two public consultations in relation to the proposals, held in August 2011, and following the receipt of modified proposals from Telstra, in December 2011.¹⁵⁹ A revised SSU was formally accepted by the ACCC on 27 February 2012,¹⁶⁰ alongside approval of the draft migration plan.

In its formal decision approving the proposal, the ACCC noted that the approved structural reform is to be implemented by:

- commitments from Telstra to cease the supply of specified services over networks under its control from the designated day—which is expected to be the day on which the construction of the new wholesale-only national broadband network will be concluded; and
- equivalence and transparency measures regarding access to Telstra's key wholesale services (that is, the Regulated Services) in the period leading up to the designated day.

¹⁵⁶ See e.g. *National Broadband Network: Regulatory Reform for the 21st Century*, Discussion Paper published April 2009.

¹⁵⁷ *The Australian Government Competition Policy Review*, Report March 2015, p.192.

¹⁵⁸ ACCC, *Assessment of Telstra's Structural Separation Undertaking and draft Migration Plan*. Final decision, published February 2012, p.1.

¹⁵⁹ *Ibid*, p.4.

¹⁶⁰ See Structural Separation Undertaking given by Telstra Corporation Limited to the Australian Competition and Consumer Commission under section 577A of the Telecommunications Act 1997 dated 23 February 2012 (including variations up to 19 June 2013), <https://www.accc.gov.au/system/files/Structural%20Separation%20Undertaking.pdf>.

- A migration plan under which Telstra will cease supplying copper and most HFC services—including wholesale services (where they are supplied)—as part of the migration to the national broadband network.¹⁶¹

The ACCC is charged with monitoring the implementation of the formal SSU. Where Telstra has acted contrary to its overarching equivalence commitment, the ACCC is empowered to accept rectification proposals to remedy the possible breach, or, if satisfied that the proposal would not provide an effective remedy, it may reject the rectification proposal and direct Telstra to take alternative steps.¹⁶² The ACCC's most recent annual report on compliance with the SSU identifies a number of instances where Telstra has failed to meet its obligations to properly ring-fence confidential or commercially sensitive wholesale customer information, and to ensure equivalence between its retail and wholesale operations in certain respects.¹⁶³ The report noted, nonetheless, that Telstra had made significant progress towards addressing issues that came to light following the commencement of the SSU.¹⁶⁴

European Union

As discussed in the preceding report, the current framework for telecommunications regulation at EU level, which was adopted in 2009, does not mandate structural separation of telecommunications providers. Instead, functional separation is envisaged as a *potential* remedy that may be imposed by national regulators to control instances of significant market power.¹⁶⁵

As in other jurisdictions, an issue of significant concern and interest within the EU at present is the need to incentivise and ensure greater investment in next generation technologies, particularly high-speed fibre networks.¹⁶⁶ In July 2012, the then Commissioner for the Digital Agenda, Neelie Kroes, announced a shift in EU telecommunications policy, with the express objective of “*enhancing the broadband investment environment*”.¹⁶⁷ This followed on from two public consultations conducted by the European Commission, considering non-discriminatory and regulatory price-setting in relation to regulated access

¹⁶¹ ACCC, Assessment of Telstra's Structural Separation Undertaking and draft Migration Plan. Final decision, published February 2012, p.14.

¹⁶² For an overview of the ACCC's activities in this area, see the ACCC's website at <https://www.accc.gov.au/regulated-infrastructure/communications/industry-reform/telstras-structural-separation-undertaking>.

¹⁶³ ACCC Report, *Telstra's Structural Separation Undertaking. Annual Compliance Report 2013-14*, published May 2015.

¹⁶⁴ *Ibid*, p.1.

¹⁶⁵ Directive 2009/140/EC of the European Parliament and of the Council of 25 November amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorisation of electronic communications networks and services (OJ L 337/37, 18.12.2009).

¹⁶⁶ See e.g. Wolfgang Briglauer, “The impact of regulation and competition on the adoption of fiber-based broadband services: recent evidence from the European Union Member States,” 46 *Journal of Regulatory Economics* 51-79 (2014).

¹⁶⁷ European Commission MEMO/12/554, “Enhancing the broadband investment environment—policy statement by Vice President Kroes,” published 12 July 2012.

to telecommunications network, respectively,¹⁶⁸ which had sparked a wider debate regarding the role of regulation in promoting competition and investment in this area.¹⁶⁹ Noting that “*the real heavy lifting must be done by private investment*”¹⁷⁰ in relation to next generation access (NGA) and high-speed networks, the policy statement emphasised, in particular, the need for certainty, greater flexibility and a degree of restraint in relation to regulation of new technologies:

*“Regulatory policy should clearly be an enabler not an obstacle. Regulation that is stable over time and consistent throughout Europe can underpin competition and efficient investment.”*¹⁷¹

The policy statement thus set out seven guiding principles for future regulatory strategies throughout the EU:

- The need for a level playing field to secure competition, securing “truly equivalent access” to incumbent networks.
- Recognition that too much intervention can constrain flexibility, so that regulation should be focused on those issues that are vital for healthy competition, allowing scope to lighten regulatory intervention elsewhere.
- Awareness of both the direct and potential indirect effects of regulation.
- Reluctance to “pick winners” through telecommunications policy, and thus a need for technology neutrality in regulatory terms.
- The need to generate the appropriate “buy or build” signals through regulated wholesale access prices—in particular, to give other operators proper incentives to duplicate infrastructure where economically viable.
- Regulatory stability and consistency, particularly in order to generate certainty for operators—whilst retaining scope for flexibility to meet changing circumstances where necessary.
- Recognition of the complexity of the question of the role that copper access prices plays in spurring NGA investment.

In relation to the final point, the policy statement set out the Commission’s view that “we are not convinced that a phased decrease in copper prices would spur NGA investment. Indeed, we now see fibre investment progressing relatively well in some Member States where copper prices are around or above the EU average.” Thus, the Commission would now appear to have a greater appreciation, and preference where possible, for the merits of infrastructure-based rather than access-based competition in relation to telecommunications. This repositioning has received the strong support from those representing

¹⁶⁸ See European Commission Press Release IP/11/1147, “Digital Agenda: public consultations on access to telecoms networks,” published 3 October 2011.

¹⁶⁹ MEMO/12/554.

¹⁷⁰ Ibid.

¹⁷¹ Ibid.

incumbent operator interests insofar as it is conducive to greater investment in new infrastructure,¹⁷² yet has been criticised by challenger telecommunications operators as detrimental to existing competition.¹⁷³

The policy statement has subsequently been complemented by a (soft law) Recommendation on application of the principle of non-discrimination in relation to wholesale access, as well as regulatory price-setting for access.¹⁷⁴ The principles espoused are, however, expressly stated to be without prejudice to any decision to impose functional separation, or accept voluntary separation arrangements, under Directive 2002/19/EC.¹⁷⁵

The Commission has continued to pursue antitrust enforcement action in the telecommunications sector, which acts as a complement to liberalisation and unbundling requirements in many instances. In *Telekomunikacja Polska*, the Commission sanctioned the incumbent telecommunications operator in Poland for a constructive refusal to deal, contrary to Article 102 TFEU.¹⁷⁶ The core of the anticompetitive behaviour at issue comprised a repeated refusal to provide wholesale access to the incumbent's network, already mandated by domestic telecommunications regulation, through a combination of delaying tactics and unreasonable access conditions. A fine of over EUR 127 million was imposed on Telekomunikacja Polska for its behaviour.¹⁷⁷

In *Slovak Telekom*, the Commission held that the incumbent telecommunications operator in the Slovak Republic had similarly breached Article 102 TFEU by refusing to supply access to its unbundled local loops, through a combination of withholding from alternative operators network information necessary for the unbundling of local loops, reducing the scope of its obligations regarding unbundled local loops, therefore reserving for itself potential xDSL customers, and by setting other unfair terms and conditions in its Reference Unbundling Offer (RUO) regarding collocation, qualification, forecasting, repairs and bank guarantees. It also imposed a margin squeeze in relation to access, by applying tariffs that did not allow an equally efficient competitor relying on wholesale access to replicate the retail broadband services offered by Slovak Telekom without incurring a loss. A fine of EUR 38,838,000 was imposed on Slovak Telekom for its abusive behaviour; in addition to being held jointly and severally liable for that fine, an additional fine of EUR 31,070,000 was imposed on Slovak Telekom's parent

¹⁷² See ETNO Press Release, "ETNO reiterates support to Commission's announcement on a new regulatory environment for broadband investment and improve conditions for competitiveness," published 3 October 2012, <https://www.etno.eu/news/etno/2012/57>.

¹⁷³ See ECTA Press Release, "Vice-President Kroes turns her back on competition, published 12 July 2012, www.ectportal.com/en/PRESS/ECTA-Press-Releases/2012/Vice-President-Kroes-turns-her-back-on-competition/.

¹⁷⁴ European Commission Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (C(2013) 5761 final), published 11 September 2013.

¹⁷⁵ Ibid, recital (18).

¹⁷⁶ See Summary of Commission Decision of 22 June 2011 relating to a proceeding under Article 102 of the Treaty on the Functioning of the European Union (Case COMP/39.525 — Telekomunikacja Polska) (OJ C 324/7, 9.11.2011).

¹⁷⁷ For further discussion, see Eduardo Martinez Rivero, "Telekomunikacja Polska: Antitrust Enforcement in a Highly Regulated Environment," 3(1) *Journal of European Competition Law and Practice* 45 (2012).

company, Deutsche Telekom, which had previously been found by the Commission to have breached Article 102 TFEU through an abusive margin squeeze relating to broadband markets in Germany.¹⁷⁸

In *Telefónica/Portugal Telecom*, the Commission sanctioned a non-compete clause between these two incumbent operators, which had effectively carved up the Iberian telecommunications market, contrary to Article 101 TFEU. Fines of EUR 66,894,000 were imposed on Telefónica and EUR 12,290,000 on Portugal Telecom.¹⁷⁹

Finally, in July 2014, the European Commission approved the acquisition of Dutch Telecom operator KPN's German mobile telecommunications business E-Plus by Telefónica Deutschland following an in-depth investigation.¹⁸⁰ Approval was conditional upon the full implementation of a commitments package submitted by Telefónica. Initially, the Commission had concerns that the merger would have removed two close competitors and important competitive forces from the German mobile telecommunications market, and that it would have further weakened the position of Mobile Virtual Network Operators (MVNOs) and Service Providers to the detriment of consumers. To address these concerns, Telefónica submitted commitments ensuring that new competitors will enter the mobile telecommunications market in Germany and that the position of existing competitors is strengthened. These commitments include, *inter alia*, that Telefónica ensures the short-term entry or expansion of one or several MVNOs that will compete with the merged entity. Thus, Telefónica committed to sell, before the acquisition was completed, up to 30% of the merged company's network capacity to one or several (up to three) MVNO(s) in Germany at fixed payments, to extend existing wholesale agreements with Telefónica's and E-Plus' partners (i.e. MVNOs and Service Providers), and to offer wholesale 4G services to all interested players in the future.

*Japan*¹⁸¹

Following a period of consolidation, the mobile telecommunications business in Japan is concentrated at present, with only three major players. Thus, the market now has a strong oligopoly character, under which the three business groups offer customer plans with similar fee levels. As a result, it is now recognised that there is a need to develop an environment in which MVNOs—telecommunications operators that provide mobile network services by using wholesale-level mobile network services provided by a mobile network operator, without establishing or managing wireless stations of their own—are able to compete more effectively. In response to this situation, the Ministry of Internal Affairs and Communications has examined ways to enhance fair competition and to protect the benefits of customers in mobile telecommunications services. In order to ensure that MVNOs are able to access mobile telecommunications networks, promptly and stably, the Ministry has issued directions setting out its policies in this regard. This includes the development of provisions in law and regulations

¹⁷⁸ No public version of the decision is yet available; a summary is available in the European Commission MEMO/14/590, “Antitrust: Commission decision on abusive conduct on Slovak broadband markets by Slovak Telekom and Deutsche Telekom - frequently asked questions,” published 15 October 2014.

¹⁷⁹ Summary of Commission Decision of 23 January 2013 relating to a proceeding under Article 101 of the Treaty on the Functioning of the European Union (Case COMP/39.839 — *Telefónica/Portugal Telecom*) (OJ C 140/11, 18.5.2013).

¹⁸⁰ See European Commission Press Release IP/14/771, “Mergers: Commission clears acquisition of E-Plus by Telefónica Deutschland, subject to conditions,” published 2 July 2014.

¹⁸¹ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

about the unbundling of the mobile telecommunications networks that are stipulated in the guidelines at present.

*Latvia*¹⁸²

Latvia has transposed the EU telecommunications regulatory framework into national legislation via the Electronic Communication Law. The sector is overseen by the Public Utilities Commission, which is the national regulatory authority with jurisdiction over telecommunications, energy and transport. It is furthermore policed by the Competition Council, which enforces competition law within the sector. In the case of fixed telecommunications, the market is shared between the incumbent operator, LLC Lattelecom, and several smaller operators. In the case of mobile telecommunications, the market is shared between LMT (LLC Latvijas Mobilais Telefons), LLC Tele2, LLC BITE Latvija and LLC Telekom Baltija. Competition within the Latvian telecommunications sector is generally good, with retail rates that are amongst the lowest in the EU.

New Zealand

The 2011 report described the operational (but not ownership) separation of the privatised incumbent telecommunications operator in New Zealand, then known as Telecom New Zealand, into three distinct divisions, comprising retail, wholesale and network infrastructure functions. In 2009, the New Zealand Government formally published its “ultra-fast broadband initiative,” which set out the objective of ensuring the availability of ultra-fast broadband to 75 per cent of New Zealanders by 2019, with a particular emphasis in the early years upon provisions to schools, businesses and health services.¹⁸³ The proposal envisaged a series of public-private partnerships, with management of government investment in fibre networks via a new Crown-owned investment company, Crown Fibre Holdings.¹⁸⁴ A key principle underlying the initiative, moreover, was that infrastructure funded (partly) by the government would be subject to open access, with local fibre companies required to provide transparent and non-discriminatory access to their infrastructure.¹⁸⁵ Around NZD 1.35 billion of public funds have been committed to the project.

Crown Fibre Holdings subsequently entered into partnerships with four private companies to develop ultra-fast broadband infrastructure. The majority of contracts (about 70%) were awarded to Chorus, the infrastructure division of the operationally separated Telecom New Zealand structure. A condition of the award, however, was the full structural separation of Chorus from the remainder of Telecom New Zealand. On 1 December 2011, Chorus was formally separated, and listed on the New Zealand stock exchange as a separate company.¹⁸⁶ The remaining service provision divisions of Telecom New Zealand have been rebranded as Spark New Zealand as of August 2014.

Originally, it had been anticipated that infrastructure builders might benefit from a “regulatory holiday,” shielding wholesale access prices from regulatory scrutiny, during the build period of the

¹⁸² The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

¹⁸³ New Zealand Government, *Ultra-Fast Broadband Initiative. Overview of Initiative*, published September 2009, p.1.

¹⁸⁴ Ibid, p.2.

¹⁸⁵ Ibid, p.8.

¹⁸⁶ Further information on Chorus is available at www.chorus.co.nz/about-chorus/our-history/our-history.

public-private partnerships. In response to significant political pressure and lobbying efforts from telecommunications service providers, this strategy of regulatory forbearance was ultimately abandoned, and replaced with contractual protections for infrastructure builders in the event of a reduction in the regulated access price.¹⁸⁷ Whilst the project has been criticised for allegedly low take-up rates in its early stages,¹⁸⁸ by June 2015 almost 54% of the build areas of the scheme had been completed, with over 106,000 users connected.¹⁸⁹ The objective is for 97.8% of New Zealanders to have access to faster broadband under the project by the end of 2019.¹⁹⁰ The relative price differences between copper and fibre are likely to be an important factor in driving migration because, as yet, there is no plan to force consumers to migrate to the new network. Longer term pricing (post-2019) of both copper and fibre is currently under review by the New Zealand government.

Russian Federation¹⁹¹

In November 2014, rules regarding non-discriminatory access to telecommunication came into effect in the Russian Federation, which require the owners of infrastructure to provide for interconnection with telecommunications systems. Moreover, owners are required to register all applications for access. Implementation of these rules is intended to create transparent, non-discriminatory access conditions within the telecommunications sector; to lower investment risks and significantly to decrease barriers to entry for new market participants; and to reduce the “digital gap” between the regions.

United Kingdom

The United Kingdom has had (voluntary) functional separation of its telecommunications incumbent, BT, in place since 2006. Under the terms of its agreement with Ofcom, the United Kingdom telecommunications regulator, BT was separated into distinct retail, wholesale and access divisions, albeit all remaining within the broader BT Group.¹⁹² Whilst the longer-term impacts of separation have been disputed to an extent,¹⁹³ the separation has generally been seen as a success by commentators.¹⁹⁴ For example, at the end of 2005 United Kingdom consumers were paying on average GBP 23.60 per month for broadband services, whereas recent figures have shown that this has fallen to GBP 13.19 per month. Moreover, these savings do not appear to have been realised in a manner that has harmed the company, as BT’s share price has risen subsequent to separation, contrary to some predictions. There has also been a significant boom in broadband subscriptions, which has been, to a large degree, attributable to the separation of BT and OpenReach and the take-off of local loop unbundling.

¹⁸⁷ See Ministry of Communications and Information Technology Press Release, “Regulatory forbearance to be replaced,” published 18 May 2011.

¹⁸⁸ Howell, p.13.

¹⁸⁹ See Ministry of Business, Innovation and Employment, *Broadband Deployment Update*, June 2015.

¹⁹⁰ Ibid.

¹⁹¹ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

¹⁹² See further discussion of these arrangements in the 2011 report, pp.83-85.

¹⁹³ See e.g. J. Gregory Sidak & Andrew P. Vassallo, “Did Separating Openreach from British Telecom Benefit Consumers?” 38 *World Competition* 38 31–76 (2015).

¹⁹⁴ The figures that follow were provided by the country in its submission to the 2014 OECD meeting on structural separation.

In November 2014, however, it was reported that BT had approached Ofcom to explore the possibility of folding its existing wholesale business into Openreach, its infrastructure division. The report cites a desire to reduce overall costs as well as declining sales revenue at the wholesale division as the motivations for the proposal. Technological advances, particularly the advent of high-speed fibre, also mean that both divisions now sell many of the same products. However, the report notes the likely opposition of downstream competitors to the potential merger, which might create the possibility for greater bundling and leveraging of Openreach's existing monopoly position.¹⁹⁵

United States

The telecommunications sector in the United States witnessed one of the earliest and most prominent examples of structural separation with the break-up of the vast AT&T company by voluntary consent decree in 1984.¹⁹⁶ As described in the 2006 Report, however, the United States subsequently moved away from stringent structural separation between vertically related carriers.¹⁹⁷ Following a series of mergers, the number of Regional Bell Operating Companies (RBOCs) has dropped from seven at the time of divestment to just three today: Verizon, CenturyLink and (the renamed) AT&T.

As the nature of the telecommunications market has evolved, an increasing emphasis is being placed upon Internet services, which are also offered by cable providers alongside the more conventional fixed-line telecommunications operators. In February 2014, Comcast, the largest cable company and home Internet service provider in the United States, announced its proposed acquisition of Time Warner Cable, the second-largest cable provider in the country. Although there was no direct overlap between the service areas in which Comcast and Time Warner operated, the merger faced significant regulatory opposition on the basis of the potential market power that the combined entity would have yielded in the high speed Internet market. In particular, there was a fear that, post-merger, Comcast could use its considerable power in the broadband market to disrupt online streaming services, which compete directly with the company's conventional cable pay-TV services.¹⁹⁸ In April 2015, in light of indications that the Department of Justice was preparing to block the merger on antitrust grounds, Comcast called off the deal.¹⁹⁹

Furthermore, in February 2015, the Federal Communications Commission (F.C.C.) formally adopted a policy of "net neutrality,"²⁰⁰ which will result in the regulation of broadband Internet services as a public utility.²⁰¹ The crux of the net neutrality concept is a desire to avoid a "two-speed" Internet,

¹⁹⁵ Daily Telegraph, "BT plans to scrap £2.4bn Wholesale division," published 13 November 2014.

¹⁹⁶ *United States v. AT&T*, 552 F. Supp. 131 (DDC, 1982); affirmed sub nom. *Maryland v. United States*, 460 U.S. 1001 (1983).

¹⁹⁷ 2006 Report, pp.38-39.

¹⁹⁸ Forbes, "Comcast-TWC Merger Called Off" Where Do These Companies Stand Now", published 28 April 2015, www.forbes.com/sites/greatspeculations/2015/04/28/comcast-twc-merger-called-off-where-do-these-companies-stand-now/.

¹⁹⁹ New York Times, "Under Regulators' Scrutiny, Comcast and Time Warner Cable End Deal," published 24 April 2015, www.nytimes.com/2015/04/25/business/media/comcast-time-warner-cable-deal.html.

²⁰⁰ The "net neutrality" concept was introduced by Professor Tim Wu in an influential article, "Network Neutrality, Broadband Discrimination," 2 *Journal on Telecommunications and High Technology Law* 141 (2003).

²⁰¹ New York Times, "F.C.C. Approves Net Neutrality Rules, Classifying Broadband Internet Service as a Utility," published 26 February 2015, www.nytimes.com/2015/02/27/technology/net-neutrality-fcc-vote-internet-utility.html?_r=0.

that is a principle of non-discrimination with respect to charges and access to the Internet as between competing content and applications. Fixed lines, plus mobile data service for smartphones and tablets, have all been placed under the new rules.²⁰² Notably, however, adoption of the rules was not a unanimous decision: the F.C.C. Commissioners split 3 to 2 along party lines, with both Republican representatives dissenting.²⁰³ Detailed rules that set out the requirements of the new policy were published in March 2015.²⁰⁴

²⁰² *Ibid.*

²⁰³ *Ibid.*

²⁰⁴ See *In the Matter of Protecting and Promoting the Open Internet*, GN Docket No. 14-28, Report and Order on Remand, Declaratory Ruling, and Order, released 12 March 2015, available online on the F.C.C.'s website at: http://transition.fcc.gov/Daily_Releases/Daily_Business/2015/db0312/FCC-15-24A1.pdf.

Chapter 3. New sectors for application of the Recommendation

This chapter considers the possible application of the Recommendation in certain vertically (or, sometimes, horizontally) integrated sectors beyond those considered in the 2011 report but in the line with 2001 report. Generally speaking, across Members, these potential candidate markets are less advanced in terms of deregulation and liberalisation than the more established sectors examined in the preceding chapter. Nonetheless, as the experiences to follow demonstrate, in many jurisdictions a degree of competition has been introduced. Moreover, as competition problems have arisen, structural solutions have been considered, and sometimes implemented, to varying degrees. This chapter aims, first, to identify broadly the competition—and other—considerations that may inform the potential application of the Recommendation within these sectors. Second, to the extent that experiential evidence is available, it provides a non-exhaustive illustration of circumstances in which separation measures have been contemplated and/or imposed. The chapter concludes with a brief overview of further sectors in which structural separation in line with the Recommendation may be appropriate in some instances.

3.1 Postal Services

Much has been written about how and to what extent competition can (and should) be introduced into the postal sector.²⁰⁵ Like other utility markets, the postal sector is characterised by (possible) natural monopoly components,²⁰⁶ coupled with contestable segments. The 2001 report noted that the natural monopoly, if it exists at all, arises in the regular local delivery of letter mail to households. The remaining segments of this market (collection, outward sorting, transportation, express mail and parcels) are all potentially competitive.²⁰⁷ Yet other aspects of the postal sector render it less typical as a utility market: for example, the postal sector is especially labour-intensive,²⁰⁸ while the postal service today faces considerable competition from electronic means of communication, particularly in respect of letter—as opposed to parcel—delivery.²⁰⁹ Whilst liberalisation and privatisation have been achieved in some jurisdictions, in others a state-owned monopoly provider remains in place, at least for letter services. Considering the possibilities for competition in the postal sector, Cave concluded the following:

²⁰⁵ See e.g. Michael A. Crew & Paul R. Kleindorfer (eds.), *Heightening Competition in the Postal and Delivery Sector*, Edward Elgar Publishing, Cheltenham, 2010; Martin Cave, “Separation and Access Prices in Postal Services,” 6 *Journal of Network Industries* 115 (2005); Christian Jaag, “Postal-sector policy: From Monopoly to Regulated Competition and Beyond,” 31 *Utilities Policy* 266 (2014).

²⁰⁶ The extent to which the postal sector in fact incorporates natural monopoly components is disputed: a survey of the literature is found in Toufic M. El Masri, “Subadditivity and Contestability in the Postal Sector: Theory and Evidence,” *University of Lüneburg Working Paper Series in Economics* No.195, published February 2011.

²⁰⁷ 2001 report, p.51.

²⁰⁸ Jaag (2014), at 266.

²⁰⁹ See Michael A. Crew & Paul R. Kleindorfer (eds.), *Reforming the Postal Sector in the Face of Electronic Competition*, Edward Elgar Publishing, Cheltenham, 2013.

*Compared with other utility sectors, the post sector exhibits a different cost structure with a lower proportion of capital and sunk costs. This facilitates entry. On the other hand the historic monopolist's inheritance of a reserved area, which in many OECD countries is declining slowly, creates distortions in competition which may justify mandatory access to those assets which are hard to replicate.*²¹⁰

He concluded that, whilst the data to make a judgment regarding the merits of structural separation in this context is not readily available (and, indeed, remains elusive a decade later), “the matter deserves full consideration as the OECD Recommendation proposes.”²¹¹

European Union

As with other former monopoly sectors, the European Union has taken a progressive approach to harmonised liberalisation of postal markets in Europe. The initial Framework Directive²¹² established common rules to be adopted across the Member States with respect to both (eventual) market opening and quality of service for the postal sector. The aims and objectives were set out in Article 1:

This Directive establishes common rules concerning:

- the provision of a universal postal service within the Community;
- the criteria defining the services which may be reserved for universal service providers and the conditions governing the provision of non-reserved services, tariff principles and transparency of accounts for universal service provision;
- the setting of quality standards for universal service provision and the setting-up of a system to ensure compliance with those standards;
- the harmonisation of technical standards;
- the creation of independent national regulatory authorities.

Whereas the Directive acknowledged that certain elements of the postal sector relating to universal service provision could be “reserved” (i.e. insulated from competition), it foresaw an opening of non-reserved segments. Thus, Member States were permitted to reserve the following: “the clearance, sorting, transport and delivery of items of domestic correspondence, whether by accelerated delivery or not, the price of which is less than five times the public tariff for an item of correspondence in the first weight step of the fastest standard category where such category exists, provided that they weigh less than 350 grams.”²¹³ Cross-border and direct mail could also be reserved within the same limits.²¹⁴ The Directive required the European Parliament and the Council of the European Union to make a decision, by 1

²¹⁰ Cave (2005), at 131.

²¹¹ *Ibid.*

²¹² Directive 97/67/EC of the European Parliament and of the Council of 15 December 1997 on common rules for the development of the internal market of Community postal services and the improvement of quality of service (OJ L 15/14, 21.1.1998).

²¹³ Directive 97/67/EC, Article 7(1).

²¹⁴ Directive 97/67/EC, Article 7(2).

January 2000, about “the further gradual and controlled liberalisation of the postal market, in particular with a view to the liberalisation of cross-border and direct mail”.²¹⁵

Additionally, in order to improve transparency and to avoid anti-competitive cross-subsidies,²¹⁶ universal service providers were required to keep separate accounts within the internal accounting systems at least for each of the services within the reserved sector on the one hand and for the non-reserved services on the other.²¹⁷ The Directive also required the creation of national regulatory authorities for the postal sector in each Member State, to be legally separate from and operationally independent of the incumbent postal operator.²¹⁸

The liberalisation process continued with the second postal Directive,²¹⁹ which reduced the weight thresholds for “reserved” status on the basis of universal service provision to:

*100 grams from 1 January 2003 and 50 grams from 1 January 2006. These weight limits shall not apply as from 1 January 2003 if the price is equal to, or more than, three times the public tariff for an item of correspondence in the first weight step of the fastest category, and, as from 1 January 2006, if the price is equal to, or more than, two and a half times this tariff.*²²⁰

Where necessary to ensure the provision of universal service, direct mail and *out-going* cross-border mail continued to benefit from the same exemption from competition below the relevant weight and price thresholds.²²¹ The Directive also envisaged the “full accomplishment of the postal internal market” by the end of 2009.²²²

The third postal Directive²²³ abolished the “reserved” segment in its entirety. Instead, revised Article 7 of the Framework Directive now states: “Member States shall not grant or maintain in force exclusive or special rights for the establishment and provision of postal services.”²²⁴ Member States are permitted (indeed, required) to make provision for universal service, including compensation for uneconomic services, but must do so in accordance with the general EU public procurement rules.²²⁵ Member States were required to implement the requirements of the Directive by the end of 2010,²²⁶

²¹⁵ Directive 97/67/EC, Article 7(3).

²¹⁶ Directive 97/67/EC, Recital (28).

²¹⁷ Directive 97/67/EC, Article 14(2).

²¹⁸ Directive 97/67/EC, Article 22.

²¹⁹ Directive 2002/39/EC of the European Parliament and of the Council of 10 June 2002 amending Directive 97/67/EC with regard to the further opening to competition of Community postal services (OJ L 176/21, 5.7.2002).

²²⁰ Directive 2002/39/EC, Article 1(1).

²²¹ *Ibid.*

²²² *Ibid.*

²²³ Directive 2008/6/EC of the European Parliament and of the Council of 20 February 2008 amending Directive 97/67/EC with regard to the full accomplishment of the internal market of Community postal services (OJ L 52/3, 27.2.2008).

²²⁴ Directive 2008/6/EC, Article 1(8).

²²⁵ *Ibid.*

²²⁶ Directive 2008/6/EC, Article 2.

although a number of smaller or newer Member States were granted derogation from the full effects of the Directive until the end of 2012.²²⁷

Accounting separation for universal service providers remains in place, again for the express purpose of avoiding cross-subsidies within new fully-competitive markets.²²⁸ Revised Article 22 of the Framework Directive moreover states explicitly that: “Member States that retain ownership or control of postal service providers shall ensure effective structural separation of the regulatory functions from activities associated with ownership or control.”²²⁹ It has been recommended, nonetheless, that this provision should be amended to make clear the further need for structural separation between the various Member State authorities that govern the postal sector, namely: policy-making authorities (one or more ministries), regulatory authorities (one or more National Regulatory Authorities), and the ownership authority (if the government owns a postal operator).²³⁰

As of 1 May 2013, all 28 Member States have adopted legislation to transpose the Third Postal Directive into national law, with the exception of Cyprus²³¹ and Romania. None of the 3 non-EU EEA Member States had done so.²³²

*Ireland*²³³

In line with EU requirements, the postal sector in Ireland became fully liberalised on 2 August 2011. An Post, the state-owned incumbent operator and the historic monopolist, continues to be the largest postal provider in Ireland. An Post owns the main postal network and infrastructure; it fulfils the core functions of a postal operator; and, until 2023, it has been designated as the “universal postal service provider” in accordance with the amended EU Framework Directive.²³⁴ In this regard it is regulated by the Commission for Communications Regulation (“ComReg”).²³⁵ As universal service provider, An Post

²²⁷ Namely, Czech Republic, Greece, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Poland, Romania and the Slovak Republic: see Directive 2008/6/EC, Article 3.

²²⁸ Directive 2008/6/EC, Recital (41).

²²⁹ Directive 2008/6/EC, Article 1(20).

²³⁰ WIK-Consult, *Main Developments in the Postal Sector (2010-2013): Final Report. Study for the European Commission, Directorate General for Internal Market and Services*, published August 2013, http://ec.europa.eu/internal_market/post/doc/studies/20130821_wik_md2013-final-report_en.pdf, at p.345.

²³¹ *Note by Turkey*: The information in this document with reference to « Cyprus » relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the “Cyprus issue”. *Note by all the European Union Member States of the OECD and the European Union*: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

²³² *Ibid.*, at p.i.

²³³ The information in this section was provided by the country in its submission to the 2014 OECD meeting on structural separation.

²³⁴ Further information about An Post is available on its website: www.anpost.ie/AnPost/.

²³⁵ Further information about ComReg is available on its website: www.comreg.ie/.

is obliged to provide these services until 2023, but these services are not reserved to it, and competition is legally possible even in this area.

Since liberalisation, a small number of other providers have entered some segments of the Irish Market. Apart from express and courier services, however, entry into other product segments has been severely limited. There has been limited entry into the letter mail segment of the market, with two companies, CityPOST and Lettershop, serving business customers, but only in the large urban centres. New entrants have concentrated on bulk business mails, focusing on pre-postal and postal services for bulk business mailings of items of correspondence, direct mail and magazine segments.

The Irish Competition Authority identifies several obstacles to competition in the postal sector in Ireland. The first is the issue of locating postal addresses. Ireland is the only country in the EU that does not have postcodes, which complicates the task of locating the exact geographic location of postal addresses. An Post has the only complete, proprietary database of postal addresses in the state, called GeoDirectory. It is intended, however, that every letterbox in the state will be provided with a unique seven-character code under the incoming National Postcode System by 2015. This publicly available database should assist increased entry into postal product segments that have not experienced competition to date.

Second, An Post is the only vertically integrated postal operator on a national scale (although Lettershop is vertically integrated in Dublin). Moreover, as the universal service provider, once the national infrastructure for consumer mail is in place An Post benefits from substantial economies of scope with business mail. All authorised postal providers have the right to access the postal network of the universal postal provider, known as downstream access arrangements. These are commercial arrangements between An Post and the non-universal service postal provider. ComReg has only a dispute resolution/mediator role with respect to these arrangements. Non-universal service postal providers may also purchase An Post's universal services and other products, or negotiate an agreement with An Post as a user in order to access its network. Structural separation has not, to date, been considered in the postal sector.

In October 2014, following a number of complaints, the Competition Authority adopted an Enforcement Decision against An Post relating to its zonal pricing scheme for users of its Publication Services product.²³⁶ This product is offered to publishers of newspapers, magazines and periodicals that post in excess of 100 items in a single mailing. The Competition Authority took the view that, between March 2012 and February 2013, the pricing scheme was implemented in a manner that had the same effect as granting an exclusivity discount. In view of An Post's probably dominant position in the market for the delivery by post of newspapers and periodicals presented in bulk in the state, the application of the pricing scheme was likely to amount to a breach of section 5 of the Irish Competition Act 2002, and Article 102 TFEU. The Authority was satisfied, however, that An Post's amended procedures for the application of the zonal pricing scheme, introduced in February 2013, addressed the competition concerns identified, and so it closed the investigation without seeking to take any further action.

²³⁶ Enforcement Decision Series (E/14/001), Decision of the Competition Authority (Case COM/13/005) *Alleged anti-competitive conduct by An Post in the market for bulk distribution of pre-sorted publications by post in the State*, published October 2014.

*Latvia*²³⁷

Latvia has transposed the requirements of the EU regulatory framework for the postal sector, and the postal market has been fully open to competition from 1 January 2013. SJSC Latvijas Pasts, the incumbent service provider, is a fully state-owned enterprise. Postal services are considered to be services of general economic interest, so they are regulated by an independent regulatory authority, the general Public Utilities Commission, which supervises compliance by postal service operators with their conditions of authorisation and specific quality requirements. Under the Postal Law, postal companies are permitted to gain access to the postal infrastructure of other postal companies if they can reach agreement about payment, and conditions regarding collection, delivery and return of postal items.

The regulator maintains a register of authorised postal companies; any company granted generalised authorisation has the rights to provide any kind of postal services in all market segments. About half of the companies authorised to provide postal services at the end of 2013, however, were not active in the market, while new entrants have tended to focus on the most profitable market segments, such as express and courier mail service. Moreover, most new entrants operate only in certain regions or cities. At the end of 2013, for example, only eight companies provided traditional postal services in the postal sector.

Sweden

Sweden was the first country in Europe to completely liberalise its postal market, in 1993, years before other Member States began to do so.²³⁸ There is no regulated downstream access to the delivery network of the incumbent postal services operator (formerly Posten) for competitors.²³⁹ Nonetheless, it has a prominent example of end-to-end competition in CityMail, a direct competitor of the incumbent. In entering the market, CityMail chose a business model that was highly selective, incorporating (i) a small product range (pre-sorted bulk mail); (ii) a low delivery frequency; and (iii) a geographic focus on the most densely populated areas. It focuses on the largest bulk mailers who are able to pre-sort mail to the carrier-route level, thereby offering their services at a lower price than those of Posten. CityMail began by serving only Stockholm, although it has subsequently expanded into other urban areas. Moreover, it provides deliveries only every third business day.²⁴⁰ Jaag concludes that the secret to its success is “a highly selective business model that aims only to penetrate the most attractive market segments.”²⁴¹ On the other hand, although CityMail has managed to double its market share since 2001, it still struggles for profitability, and depends on financial support from its owner Posten Norge (Norway Post).²⁴²

In June 2009, Posten and Post Danmark merged, creating the corporate company Posten Norden AB. Posten Norden is a Swedish public company whose owners are the Swedish state with 60 per cent of shares, and the Danish state with 40 per cent of shares.²⁴³

²³⁷ The information that follows was provided by the country in its submission to the 2014 OECD meeting on structural separation.

²³⁸ WIK-Consult (2013), at p.40.

²³⁹ *Ibid.*

²⁴⁰ Jaag (2014), at p.270.

²⁴¹ *Ibid.*

²⁴² WIK-Consult (2013), at p.42.

²⁴³ WIK-Consult (2013), at p.40.

United Kingdom

As discussed in the 2006 report, the postal service in the United Kingdom was fully opened to competition from 1 January 2006.²⁴⁴ Pursuant to the Postal Services Act 2011, the incumbent postal services operator in the United Kingdom, Royal Mail, has been privatised. A majority of its shares were floated on the London Stock Exchange in October 2013, although the Government has retained a 30 per cent share in the company. Prior to privatisation, a separate retail post office company was created, Post Office Ltd, with responsibility for provision of a wide range of products including postage stamps and banking through its nationwide network of post office branches. At privatisation, Post Office Ltd was retained in public ownership, and is now held by Post Services Holding Company Ltd, which also holds the public's 30 per cent holding in Royal Mail. The former postal regulator, Postcomm, has been incorporated into the general telecommunications regulator, Ofcom, under the 2011 Act.

3.2 Ports

The port sector was noted in the 2001 report as an industry where structural separation issues may arise, but was not subject to analysis.²⁴⁵ Ports display a degree of vertical integration insofar as it is necessary to have access to port infrastructure, such as terminals, in order to be able to provide associated services, such as stevedoring. Moreover, access to both infrastructure and services is necessary for related transport services, both waterside (i.e. shipping) and landside (i.e. trucking or rail). In most jurisdictions, port infrastructure remains in public ownership, although some or all of port services, shipping, trucking or associated rail services may be privatised.

Ports operate under a number of distinct models.²⁴⁶ Under the service model, the port authority owns, maintains and operates every available asset, offering the complete range of services required for the functioning of the port. Under the tool model, the port authority owns, develops and maintains the port infrastructure, and its staff operates all equipment owned by the authority, but cargo handling is usually contracted out to private handling firms. Under the landlord model, the port authority acts as regulatory body and as landlord, whereas port operations are carried out by private companies. Finally, the most “extreme form of port reform”²⁴⁷ is full privatisation of port infrastructure and services, which often takes the form subsequently of a private service port.

The landlord model is the predominant approach today to the operation and regulation of larger and medium-sized ports in most developed economies.²⁴⁸ In a sense, the landlord model incorporates certain elements of quasi-structural separation. Under this model, the port authority (typically, a public body) is involved in providing core infrastructure activities only, whereas private contractors provide more contestable elements such as stevedoring, dredging and towage.²⁴⁹ An illustration of the landlord model

²⁴⁴ 2006 report, pp.27-28.

²⁴⁵ 2001 report, p.29.

²⁴⁶ See World Bank, “Module 3: Alternative Port Management Structures and Ownership Models” in *Port Reform Toolkit*, 2nd ed. (2007), www.ppiaf.org/sites/ppiaf.org/files/documents/toolkits/Portoolkit/Toolkit/pdf/modules/03_TOOLKIT_Module3.pdf, pp.81-83.

²⁴⁷ *Ibid.*, p.83.

²⁴⁸ *Ibid.*, p.82.

²⁴⁹ *The Australian Government Competition Policy Review*, Report March 2015, p.106.

in practice is the Hanseatic Ports of Antwerp, Rotterdam, Bremen, Bremerhaven and Hamburg, five universal ports that compete intensely for business in northwest Europe. Each of these ports operates on a public-private partnership model where the public entity takes responsibility only for: setting the legal framework and the guidelines for port development; providing the port infrastructure; administering and renting out the publicly owned land; and regulating and supervising ship movements. All other core port business activities, such as cargo handling, storage and physical distribution, are performed by the private sector.²⁵⁰ The World Bank, in a survey of port management structures, took the view that the landlord model is generally an efficient one, insofar as it both allows for the quick adaptation of port infrastructure to meet changing requirements of world trade, and it provides the possibility of competition in the port between the different suppliers for nearly every service to ships, passengers and cargo, provided that traffic is sufficiently high.²⁵¹

The question of competition between and at ports is a complex one. Competition between ports is most likely to occur in regions where no single port has a significant cost advantage over others, so that the ports concerned operate in the same geographic market.²⁵² Within the EU, for example, the European Commission has held that northern European ports and Mediterranean ports each constitute a relevant market for freight liner shipping services, rejecting arguments presented by merging ocean carriers of containers that the two groups of ports together have come to constitute a single market, as a result of improvements in land transport.²⁵³ An individual port is most likely to possess market power where it has a persistently high market share, where barriers to entry are high, and where countervailing buyer is insignificant.²⁵⁴ In certain ports (particularly bulk ports), there may be a few large customers that can exert countervailing buyer powers; but in others (particularly city container ports) an absence of such power may grant port authorities significant market power in the absence of regulation.²⁵⁵ Where market power exists, the main forms of abuse of dominance that arise are through excessive pricing and/or refusal to supply, while tying and bundling also present issues in some markets.²⁵⁶

In its 2011 Roundtable on competition in the port sector [[DAF/COMP\(2011\)14](#)], the OECD explored the possible use of structural separation to alleviate competition problems in such markets:

One option for addressing market power concerns is to implement remedies that create a situation where a port would no longer be deemed to be in a dominant position. This is only possible in situations where there is some physical possibility of dividing the components of what has been deemed to represent the relevant market. For example, if a single terminal port were found to be the relevant market, there may be no scope for reducing this level of dominance. Where there is scope for divisibility, this could occur between ports or within a port itself.

²⁵⁰ World Bank (2007), p.110.

²⁵¹ *Ibid.*, p.110.

²⁵² OECD, *Competition in Ports and Port Services*, [DAF/COMP\(2011\)14](#) (2011), at p.10.

²⁵³ *Case No IV/M.831 – P&O/Royal Nedlloyd*, 19 December 1996; *Case No IV/M.1474 – Maersk/Safmarine*, 7 May 1999. See also Russell Pittman, “Competition Issues in Restructuring Ports and Rialways, Including Brief Consideration of these Sectors in India,” *International Journal of Regulation and Governance*, 9:2 (December 2009).

²⁵⁴ *Ibid.*, pp.10-11.

²⁵⁵ *The Australian Government Competition Policy Review*, Report March 2015, p.207.

²⁵⁶ OECD (2011), p.11.

Where a market has been determined to include several competing ports and one entity owns or has a stake in each of them, one option for reducing dominance would be to force divestiture of individual ports. Many large ports have separate terminals, opening up some scope for separate ownership of these terminals. Therefore, if a port is found to be dominant and if there are concerns about this dominance, separating the ownership of different port terminals may help to alleviate the competition concerns.

This requires the separated terminals to place some degree of competitive constraint on each other, so they need to be able to handle the same customer/commodity types

...As a possible alternative to structural separation, access regulation can help to limit the risk of discrimination where a port is a vertically integrated entity with interests downstream.²⁵⁷

Another issue of increasing relevance is the operation of port terminal facilities by large-scale users, whether shipping companies or large importers/exporters.²⁵⁸ A new ferry terminal at the port of Barcelona, for instance, is operated by Grimaldi Lines, a shipping company that also operates various passenger ferry routes from Barcelona.²⁵⁹ Whereas large downstream customers might counterbalance the potential market power of port operators, vertical integration between both operator and user functions raises the spectre of possible foreclosure, that is, that terminal operators might discriminate against companies that compete against them in downstream markets. These situations may arise from the development of new port facilities or, as emphasised in relation to Australia below, the privatisation of existing facilities.

Australia

The major Australian ports have been reformed (even if not formally vertically separated), with port authorities typically acting as landlords for competitive service providers rather than directly providing services.²⁶⁰ Port reforms have resulted in the corporatisation of ports in all States and the Northern Territories; in addition, some ports have been privatised whereas others remain in public ownership.²⁶¹

Under Part VIIA of the *Competition and Consumer Act 2010*, the ACCC monitors prices, costs and profits of container stevedoring operators located in the ports of Adelaide, Brisbane, Burnie, Fremantle, Melbourne and Sydney. Its most recent monitoring report points to increased competition in container stevedoring and the associated market entry of a third stevedore at some ports, which has delivered benefits to users of stevedoring services and the wider Australian community.²⁶² These include increased productivity; a fall in average prices; and considerable investment in container terminals. Moreover, the report suggests that these benefits should flow to consumers and Australian exporters by way of cheaper imports and lower costs. However, the report continued to highlight challenges facing new entrants to the

²⁵⁷ OECD (2011), pp.12-13.

²⁵⁸ See also the discussion in OECD (2011), at pp.271-299.

²⁵⁹ María Cabrera, Ancor Suárez-Alemán & Lourdes Trujillo, “Public Private Partnerships in Spanish Ports: Current Status and Future Prospects,” *32 Utilities Policy* 1 (2015), particularly p.8.

²⁶⁰ *The Australian Government Competition Policy Review*, Report March 2015, p.191.

²⁶¹ *The Australian Government Competition Policy Review*, Report March 2015, pp.206-207.

²⁶² ACCC, *Container Stevedoring Monitoring Report No.16*, published October 2014, <https://www.accc.gov.au/system/files/ACCC%20stevedoring%20report%202014.pdf>.

industry – some of which reflect the economics of the industry, while others may relate to existing arrangements in the industry. The report notes certain risks to continued positive performance in the sectors, the most important of which, for these purposes, is the impact of port privatisations.

*The sales of leases to operate ports provide a timely reminder to governments of the principles for privatisations set out in national competition policy. Importantly, the structure of such sales should have regard to promoting competition, and governments should consider the need for economic regulation of monopoly assets. There is significant concern that the sales of ports, if not properly managed, could lead to greater costs for container stevedores and other port users, and ultimately for consumers and exporters.*²⁶³

A recent review of national competition policy, moreover, pointed to anecdotal evidence suggesting that certain ports had been privatised, or considered for privatisation, with restrictions on competition in place in order to enhance sale prices. The review notes the potential harm to competition through privatisation of integrated monopoly entities.²⁶⁴

Thus the ACCC argues that the sale of port assets should promote competition where possible, for example by separating rather than integrating potentially competitive facilities and avoiding anticompetitive provisions from agreements with successful bidders. It notes that major container ports are generally monopoly or near monopoly assets, so their public or private operators tend to have market power. Where such assets are privatised, the ACCC suggests that regulation is likely to be required if there is only one port in a particular market or the operator of a port operates in, or may enter, a downstream market. This may involve third party access regulation where access to a monopoly service is needed to compete in upstream or downstream markets.²⁶⁵ One example of where third party access regulation has been introduced in the port space is the Port Terminal Access (Bulk Wheat) Code of Conduct, which regulates the conduct of port terminal service providers to ensure that exporters of bulk wheat have fair and transparent access to port terminal services. The Code, and the previous wheat port undertaking regime before it, were introduced in particular to address concerns about the potential for wheat port operators who also exported wheat to deny or hinder port access to rival wheat exporters.

Whilst raising concerns regarding potential competition problems arising from structural integration, however, the ACCC has suggested that benefits might be derived from improved landside connections leading to increased freight flows. The ACCC's 2014 container stevedoring monitoring report acknowledged that there may be scope for productivity gains through initiatives that align the incentives of supply chain participants (e.g. stevedores, trucking operators, empty container parks, and other service providers).

Chile

The Chilean port sector was reformed in 1997 with Act No.19.542/1997, which replaced the existing state-owned port company, Emporchi, with ten distinct state-owned companies, each of which was charged with exploiting one state-owned port. The main task of each company is to allocate port facilities by means of concessions, with two models permitted: a mono-carrier system, which allows vertical integration between the concessionaire of port services and the supporting services in the dock

²⁶³ *Ibid*, p.vii.

²⁶⁴ *The Australian Government Competition Policy Review*, Report March 2015, p.207.

²⁶⁵ ACCC submission dated 25 June 2014 to *The Australian Government Competition Policy Review*, pp.7, 35-38.

area, and a multi-carrier system which allows for different companies to provide support services in the dock area.²⁶⁶

In 1998, three major port companies requested the Chilean Competition Authority to review the competitive conditions for the tenders of port facilities in the three main port facilities in the country, Valparaíso, San Antonio and Talcahuano-San Vicente, which together represented 60 per cent of the total cargo transferred by Chilean ports. All three of the port companies had opted for a mono-carrier model.

In assessing the proposed tenders, the Competition Authority imposed strict caps on horizontal and vertical integration. In relation to horizontal integration, it prohibited any business group that owned more than 15 per cent of the corporate concessionaire of an anchor front from owning, directly or indirectly, more than 15 per cent of another corporate concessionaire of an anchor front in a public port, or any private port, in the same region. In relation to vertical integration, it held that “relevant users” (defined as companies that transfer significant quantities of cargo in the region concerned) were not permitted to own more than 40 per cent of the rights in a corresponding corporate concession. These caps were challenged at the time of the decision, but were ultimately upheld. In 2006, however, the Competition Tribunal agreed to raise the threshold on vertical integration to 60 per cent in relation to the port of San Antonio. Additional concessions were approved in subsequent years, including the ports of Iquique, Antofagasta and Arica.²⁶⁷

In May 2011, a concession was granted for a second terminal at San Antonio, which created private intra-port competition for the first time in Chile. Notably, the incumbent concessionaire for the competing anchor front in the port was not permitted to participate in the tender process.²⁶⁸

European Union

At present, there is no EU-wide legislation in place that mandates or regulates the liberalisation of port services in Member States. Earlier efforts by the European Commission to introduce such legislation in 2001 and 2004 were rejected as being unduly prescriptive, too narrow in their focus, and as creating problems of legal certainty.²⁶⁹

In May 2013, however, the Commission again introduced a proposal for a EU Regulation on port services.²⁷⁰ The proposed legislation would impose on managing bodies of ports, *inter alia*, requirements with respect to market access as well as financial transparency. The planned Regulation remains within the legislative process at present.

²⁶⁶ OECD (2011), p.109.

²⁶⁷ OECD (2011), pp.111-112.

²⁶⁸ OECD (2011), pp114-116.

²⁶⁹ OECD (2011), p.280.

²⁷⁰ European Commission, *Proposal for a Regulation of the European Parliament and of the Council Establishing a framework on market access to port services and financial transparency of ports* (COM(2013) 296 final), published 23 May 2013.

Ireland

In 2013, the Irish Competition Authority produced a study to evaluate levels of competition in the ports sector in Ireland.²⁷¹ All but one significant port in Ireland are in state ownership; the majority are operated under the landlord model. Inter-port competition is limited, and so the study focused on the potential for intra-port competition, particularly at Dublin Port, the largest port facility in the country. The study made two key recommendations to facilitate intra-port competition: with respect to the leasing and licensing of Lo-Lo (Lift on/Lift off) container terminals; and to stevedoring licensing across all Irish ports.

There are three separate Lo-Lo container terminals at Dublin Port, which are already structurally separated and privately operated under leasing and licensing arrangements. The study found, however, that those arrangements are exceptionally long—for example, one terminal had about 110 years left to run on its lease—and that this may restrict competition by severely limiting the scope for new entry. The Competition Authority recommended that the Dublin Port Company should give consideration to reducing the duration of those leases in order to address their anti-competitive effects, and that future terminal leases and licences should be awarded for shorter periods on a fair, reasonable and non-discriminatory basis.

In addition, although stevedoring services at Dublin port are similarly separated from port ownership and terminal operation, there are only two ‘general’ stevedoring licences available, both of which contain a clause that allows for the repeated renewal of those licenses at the licensee’s option and on identical terms. The study argued that, instead, that general stevedoring licenses should be granted to applicants on a fair, reasonable and non-discriminatory basis or through a tendering process. More self-handling licences should also be made available.

The restrictive practices identified in the study suggest that, even where there is a degree of structural separation at a facility, the specific nature of the leasing and licensing arrangements under which downstream service providers operate may have the effect of diluting the benefits of separation.

*Latvia*²⁷²

Commercial activities in the ports sector of Latvia are fully open to competition. Ports operate under the landlord port model. Port authorities are not-for-profit public bodies established by the relevant city council; authorities are responsible for, *inter alia*, the determination of port fees and tariff caps, pollution control, safe navigation, management of port infrastructure, and the collection of port fees and land lease payments. All commercial activities, such as cargo handling, storage, bunkering, dredging, passenger services, collective of ship-generated water and cargo residues, towage etc., are open to free competition. Compliance with competition law is ensured by the national competition authority, the Latvian Competition Council.

²⁷¹ The Competition Authority, *Competition in the Irish Ports Sector*, published November 2013, www.tca.ie/images/uploaded/documents/Ports%20Study%202013.pdf.

²⁷² The information in this section was provided by the country in its submission to the 2014 OECD meeting on structural separation.

Peru

Concession contracts are the typical mechanism of regulation in the port sector in Peru. Most port infrastructure lies under the supervisory jurisdiction of OSITRAN, a public agency that has responsibility for the regulation of the operation of all public transport infrastructure. Tariff regulation and accounting separation are the key regulatory mechanisms deployed by OSITRAN in such sectors. At present, seven port terminals operated by various private companies are under the supervision of OSITRAN. Additionally, a number of terminals are administered by the state-owned National Port Company, in which case intra-port competition is more clearly in issue. Between 2011 and 2014, the Peruvian competition authority, Indecopi, carried out an assessment of competition in port services in Peru, concluding that about 65% of the services analysed were subject to some degree of competition. Generally speaking, the review found that services related to cargo tended to be competitive, whereas those provided to ships were subject to less competition.

Switzerland

Although the country is landlocked, Switzerland has guaranteed access to the sea via the River Rhine. The Swiss port sector has seen considerable consolidation, in terms of horizontal integration, in recent years. The principal river port in the country, the “Swiss Rhine Ports,” arose from the merger of the four ports of Basel in 2008. This was intended to consolidate their position on the market, to promote river traffic on the Rhine, and to exploit synergies arising from cooperation.

Turkey

Many of the key cargo ports in Turkey have recently been privatised, or are in the process of privatisation. In providing advice on the structure of the privatisation process, the Turkish Competition Board recommended that the same purchaser should not be permitted to acquire both the ports of Mersin and Iskenderun, as both ports were located in the same geographic market, and the market share of Mersin port was high in certain segments. Following a challenge from the Privatisation High Council (PHC, the public decision-making body for the privatisation process), however, the Competition Board revised its opinion to take account of planned new port investment projects by both the public and private sectors, and opted against a separation recommendation. It did recommend, however, that the tender specifications for the privatisation of Iskenderun include investment in container handling in order to develop the capacity of the port and to enable competition with Mersin port.²⁷³

Similarly, when considering the privatisation of İzmir and Mersin ports, the Competition Board recommended that the quays at these ports should be divided into different entities to develop intra-port competition, by enabling the transfer of two different enterprises. The PHC also rejected this recommendation, however, on the basis that separation in this manner was unfeasible since the infrastructure concerned was too small to enable two separate enterprises to operate efficiently at the same facility. Instead, the PHC imposed behavioural remedies on the acquiring operator, including non-discrimination obligations and price regulation.²⁷⁴

²⁷³ OECD (2011), at pp.203-204.

²⁷⁴ OECD (2011), at p.205.

United States

The United States has a diverse port sector, with 183 commercial deep draft ports located around the country. These ports have many different management structures, ranging from large landlord ports composed of multiple competing terminals to small privately owned ports. There is no single national port regulatory agency, with regulatory authority instead distributed across federal, state and local government.²⁷⁵

In its country report to the OECD's Roundtable in 2011, the United States noted three international trends that touch upon the competition issue of inter-versus intra-port competition (and thus, more obliquely, on the possible need for structural separation). The first is the global improvement in inland freight transport, which has tended to increase the ability of users to substitute among ports economically and thus to reduce the focus on intra-port as compared with inter-port competition. The second is the growth, both organic and through merger, of large multinational terminal operating firms, particularly with respect to container terminals. Third, there has been a notable growth in vertical integration within recent years, as ocean shipping lines have (in addition to increased horizontal integration) been vertically integrating into the ownership and operation of container terminals. Moreover, bulk producers of iron ore, coal and petroleum have been vertically integrating into the ownership and operation of specialised bulk terminals used for their products. The report thus posed the question as to whether control by one competitor of an important facility such as a port terminal might be used anti-competitively, by either denying access to the facility to competitors or allowing access under unfavourable terms.²⁷⁶

3.3 Water and Sewerage

Water supply and sewerage services are viewed as classic public utilities, alongside electricity, gas and telecommunications. Whereas the latter have been subject to progressive liberalisation in many countries in recent decades, however, water and sewerage provision have been relatively little affected by these developments. Indeed, these sectors were described by Professor Martin Cave at an OECD meeting on structural separation in December 2014 as perhaps the "last frontier" for competition in most Members. Whereas corporatisation of public water companies is not uncommon, privatisation has been less prevalent, and indeed the benefits of privatisation in the context of water services are disputed.²⁷⁷ Most studies emphasise, however, the benefit of robust and effective regulation, regardless of the ownership structure of the water sector.²⁷⁸

There is no global norm for the structure of water markets, but there are certain recurring themes. In particular, although water displays natural monopoly characteristics on a local basis, generally speaking large countries, and even some small countries, do not have single monopoly providers.²⁷⁹ Vertical

²⁷⁵ OECD (2011), at p.223.

²⁷⁶ OECD (2011), at p.228.

²⁷⁷ See e.g. Ian Byatt, "The regulation of water services in the UK," 24 *Utilities Policy* 3 (2013), and María de los Ángeles García-Valinas, Francisco González-Gómez & Andrés J. Picazo-Tadeo, "Is the price of water for residential use related to provider ownership? Empirical evidence from Spain," 24 *Utilities Policy* 59 (2013).

²⁷⁸ See e.g. Antonio Massarutto & Paolo Ermano, "Drowned in an inch of water: How poor regulation has weakened the Italian water reform," 24 *Utilities Policy* 20 (2013), and Janice A. Beecher & Jason A. Kalmbach, "Structure, regulation and pricing of water in the United States: A study of the Great Lakes region," 24 *Utilities Policy* 32 (2013).

²⁷⁹ Pollitt & Steer, 19.

integration is the norm, and is typical of both private and government owned water supply agencies.²⁸⁰ Moreover, water supply is not merely an issue of delivering physical quantities of water to a location: water quality is also of vital importance.²⁸¹ Abbott *et al.* point to the following characteristics of water supply to explain the prevalence of both local monopolies and vertical integration:

- The supply of water involves substantial up-front capital costs, with water supply and wastewater systems generally subject to large scale economies. Thus, a large share of the cost of supplying water and disposing of sewerage is tied up in distribution networks that are expensive to duplicate.
- Water is a low value-added commodity compared to its transportation costs, so that centralised transmission over long distances through a large national or regional network (as is the case with electricity and gas) is generally impractical. Water supply is thus highly localised.
- Monopoly provision facilitates clear accountability with respect to issues of water quality and public health.²⁸² Accordingly, water may be the most difficult sector of all in terms of potential vertical separation, given the dangers that subtle changes in the chemical composition of the competitive product (the water itself) may contribute to excessive deterioration/depreciation of the pipe network.

It is legitimate, nonetheless, to consider whether some degree of structural separation between, for example, upstream and downstream components of a water supply system may yield rewards for consumers. Moreover, the benefits of competition in this context may extend beyond the conventional advantages of price, service-quality and innovation. Diversification of water providers, particularly at the extraction/wholesale level, may generate benefits in terms of the underlying resilience of the water system, an increasing concern for countries that are faced with population growth and/or environmental pressures linked to climate change.

The extent to which vertical separation within water markets might be beneficial is a largely unexplored issue. Given the absence to date of examples, and thus evidence of the effectiveness, of unbundling in the context of water, Pollitt & Steer, for instance, drew upon both economic theory as well as evidence from other sectors to make a case for separation in the context of the United Kingdom water sector.²⁸³ Stern, however, sounded a rather more sceptical note.²⁸⁴ The member country examples consider a number of approaches to (some degree of) structural separation within the water supply sector.

Australia

In 2004, the Council of Australian Governments reached agreement on a National Water Initiative (NWI), described as a “blueprint for water reform” agreed between the Australian Commonwealth, state

²⁸⁰ Malcolm Abbott, Bruce Cohen & Wei Chun Wang, “The performance of the urban water and wastewater sectors in Australia,” 20 *Utilities Policy* 52 (2012), 53.

²⁸¹ See e.g. François Destandau & Serge Garcia, “Service quality, scale economies and ownership: an econometric analysis of water supply costs,” 46 *Journal of Regulatory Economics* 152-182 (2014).

²⁸² Abbott *et al.*, 53.

²⁸³ Michael G. Pollitt & Steven J. Steer, “Economics of scale and scope in network industries: Lessons for the UK water and sewerage sectors,” 21 *Utilities Policy* 17 (2012).

²⁸⁴ Jon Stern, “Developing upstream competition in the England Wales water supply industry: A new approach,” 21 *Utilities Policy* 1 (2012).

and territory governments. The objectives of the NWI encompassed environmental protection, alleviation of water stresses, open markets and expansion of water trading, and creation of a system of “accounting” for water distribution.²⁸⁵ The NWI functions have now been transferred to the Productivity Commission.²⁸⁶

The recent Australian Government Competition Policy Review noted the slow pace of reforms within the water sector to date, in comparison to the electricity and gas sectors. The review recommended that all governments should progress implementation of the principles of the National Water Initiative, with a view to national consistency. The Review also recommended that governments should focus on strengthening economic regulation in urban water and creating incentives for increased private participation in the sector through improved pricing practices.²⁸⁷

- *Melbourne*

A degree of structural separation can be seen in the structure of the water supply in Melbourne, Victoria. Melbourne’s water supply was restructured in 1995 to create a single wholesale supplier in Melbourne Water, and three metropolitan retail and distribution water companies—City West Water, South East Water and Yarra Valley Water—all of which are government-owned.²⁸⁸ The Melbourne water market has faced considerable stresses and scarcity in recent years, with a particular pressure on upstream sources of supply. Melbourne Water is responsible for sourcing and treating the water that is sold by retailers. This includes the acquisition of abstraction rights (e.g. from farmers) through the trading market, the construction and management of reservoirs, as well as the purchasing of water from desalination plants.²⁸⁹ A large-scale desalination plant with a capacity of up to 150 billion litres of clean water per year was recently constructed, completing tests for performance, production and reliability in December 2012. The plant was built for the Victorian Government by AquaSure through a public-private partnership managed by the Department of Environment, Land, Water and Planning, although it has not yet received orders for supply.²⁹⁰ Downstream competition is effectively prohibited, as each of the three retail companies have defined catchment areas.

An independent review of the operation of the Melbourne water market, concluded in 2008, considered the possibility of consolidating the three retailers into a single entity, but rejected

²⁸⁵ A more detailed description is available on the website of the National Water Commission, at: www.nwc.gov.au/nwi/objectives. See also Joel Byrnes, “A short institutional and regulatory history of the Australian urban water sector,” 24 *Utilities Policy* 11 (2013).

²⁸⁶ Details about the proposed closure of the National Water Commission are available online at: www.nwc.gov.au/organisation/closure-in-2014.

²⁸⁷ *The Australian Government Competition Policy Review*, Report March 2015, p.52-53. See also Malcolm Abbott, Bruce Cohen and Wei Chun Wang, “The performance of the urban and wastewater sectors in Australia,” 20 *Utilities Policy* 52 (2012), for discussion of the differing productivity levels of the various water businesses within Australia.

²⁸⁸ Indeed, public ownership of water authorities is entrenched as a matter of state constitutional law: see the Constitution (Water Authorities) Act 2003 (Vic.).

²⁸⁹ Information on Melbourne Water’s sources of supply is available on its website: www.melbournewater.com.au/waterdata/Pages/waterdata.aspx.

²⁹⁰ Further information on the project is available on Melbourne Water’s website at: www.melbournewater.com.au/whatwedo/supply-water/Pages/Desalination.aspx.

this suggestion on the basis that it was likely to have minimal impact on prices in the coming years.²⁹¹ The review was also asked to examine the issue of future contestability, that is, the scope for greater competition in the urban water sector, both in the short and long term. It concluded, however, that:

*The current literature and relevant international experience currently provide limited evidence for concluding that in the case of water, competition will result in reduced aggregate costs and prices in all circumstances. In the Commission's view the opportunities are constrained in the short term, and would have at best marginal impact, although in the longer term the greater diversity of supply options could open up more opportunities.*²⁹²

- South East Queensland

The water supply structure for South East Queensland (SEQ) has recently moved away from a (partial) structural separation model back towards a more integrated approach.²⁹³ Under the South East Queensland Water (Restructuring) Act 2007 (Qld), all major water storage and water treatment facilities in SEQ were amalgamated within a single statutory body, the Bulk Water Supply Authority (trading as Seqwater). The change was motivated by the severe drought conditions that affected Australia at that time. In addition to Seqwater, the SEQ water supply system consisted of a transmission system operator (trading as LinkWater), several local authority retailers holding local monopolies, and a single water grid manager to act as the monopoly purchaser of bulk water services and single seller of bulk water to SEQ councils and the distributor-retailer authorities. The 2007 legislation also made provision for water trading.

May 2012 saw a change of government in SEQ, however, which opted for a different approach with respect to water supply. The South East Queensland Water (Restructuring) and Other Legislation Amendment Act 2012 (Qld) abandoned the trading provisions of the 2007 Act and adopted an industry structure similar to that in place in Melbourne, with a single integrated wholesaler supplying several downstream retailers.²⁹⁴ The government justified the change on express efficiency grounds:

*The merger allows bulk water services in SEQ to come under one authority. SEQwater operates and manages dams, water treatment plants, recycled and desalinated water plants and the major pipelines... Operational and administrative costs will be reduced by this merger, which will help reduce bulk water costs.*²⁹⁵

²⁹¹ Victorian Competition & Efficiency Commission, *Water Ways: Inquiry into Reform of the Metropolitan Retail Water Sector – Final Report*, publish February 2008, www.vcec.vic.gov.au/Inquiries/Completed-inquiries/Metropolitan-Water-Sector/Final-Report, at p.xxiii.

²⁹² *Ibid.*

²⁹³ The evolution of this regulation is discussed by Michael Rouse, *Institutional Governance and Regulation of Water Services*, 2nd ed., IWA Publishing, London, 2013, pp.156-159.

²⁹⁴ See, in particular, the Explanatory Notes to the South East Queensland Water (Restructuring) and Other Legislation Amendment Bill 2012, :

<https://www.legislation.qld.gov.au/Bills/54PDF/2012/SEQWaterROLAB12E.pdf>.

²⁹⁵ See the website of the Department of Energy and Water Supply, Queensland Government, at <https://www.dews.qld.gov.au/policies-initiatives/water-sector-reform/bulk-water-supply-sector>.

- Sydney

Pursuant to Part IIIA of the Competition and Consumer Act 2010 (the National Access Regime), sewage transportation services provided by parts of Sydney Water's sewage reticulation network were declared in 2005. For various reasons the access seeker that had sought the declaration did not subsequently proceed with building sewage treatment plants so as to compete with Sydney Water. The declaration was revoked in October 2009 following the enactment of a separate state sector-specific access regime.

- Rural Water

In relation to rural water, the Australian Government recently conducted a review of the *Water Act 2007*, which established an independent Murray Darling Basin Authority to ensure that Basin water resources are managed in an integrated and sustainable way. The ACCC has a key role in developing and enforcing water charge and water market rules within the Basin, to ensure that water markets are able to operate freely across state boundaries and to avoid perverse outcomes from inconsistent water charging arrangements. In response to a recommendation of the review, the ACCC has been asked for advice on possible amendments to water charge rules by the end of December 2015.

Ireland

The water sector in Ireland is in the midst of a significant reform process, with the establishment of Irish Water as an independent state-owned water utility, taking over responsibility for water services functions from 34 local authorities. Water services are to be regulated by an independent economic regulator, the Commission for Energy Regulation, and a sustainable funding model for water has been introduced, including usage-based domestic charges. (The latter move, however, has met with notable popular resistance.) In its submission in response to the public consultation on reform of the Irish water sector,²⁹⁶ the Irish Competition Authority highlighted the many benefits that competition has the potential to bring, including: efficient use of water; value for money; effective regulation; avoidance of over-spending; and increased cost competitiveness for businesses in Ireland. The Authority realised, however, that the transformation of the water sector function from local authorities to a semi-state company operating in a regulatory environment and new funding regime constitutes a major organisation change, and agreed that the proposed (monopoly) regime is the most feasible model in the short term. A public utility is likely to be the best way to put in place all that is required so that a functioning water market exists, including installation of water meters, transfer of staff from local authorities, and investment in water infrastructure. The Authority noted that once the new structure is in the place, the introduction of competition where possible could improve the delivery and efficiency of water services, and so it recommended that the new monopoly water company should not be created with expectations that such a model may continue indefinitely.

²⁹⁶

The full text of the Competition Authority's submission to the Consultation on the Establishment of a Public Water Utility, entitled *Submission to the Department for the Environment, Community and Local Government* (S/12/002), published February 2012, is available at www.environ.ie/en/Environment/Water/WaterSectorReform/Submissions/Organisations/FileDownload/31834.en.pdf.

United Kingdom

The structure of the water sector in the United Kingdom differs significantly across the various regions. The existing public water authorities for England and Wales were privatised in 1989, although the Welsh water sector was essentially renationalised after the privatised provider encountered serious financial difficulty. In England, water continues to be provided by comparatively large, vertically integrated private providers. In Scotland, privatisation was resisted, and there is now a single publicly owned provider, Scottish Water, although a degree of retail competition has been introduced. In Northern Ireland, water is provided by a single government-owned company, Northern Ireland Water Ltd.

- *Scotland*

Scotland has been the first region in the United Kingdom to open its water sector to competition. With the passage of the Competition Act 1998, and the introduction into United Kingdom law of the concept of an “essential facility,” the Scottish Executive (devolved regional government) received legal advice to the effect that the extensive, state-owned pipe network and treatment works might be regarded as essential infrastructure under the new Act. In the absence of a clear legislative framework, it was feared that access might be determined, instead, by the competition authority or courts, and so the Executive launched a consultation on potential market opening.²⁹⁷ This revealed a need, not merely to clarify the position with respect to competition law, but also to secure greater investment in the water and sewerage networks, whilst fostering a sustainable public sector industry.²⁹⁸

Reforms were introduced in stages.²⁹⁹ The Water Industry (Scotland) Act 2002 led to the creation of Scottish Water through amalgamation of the existing, smaller public utilities, in an effort to take advantage of latent economies of scale. It also reorganised the regulatory framework for water services in Scotland. The Water Services etc. (Scotland) Act 2005 then introduced competition into the sector, by authorising the regulator, the Water Industry Commission for Scotland (WICS), to licence new providers of water and sewerage services to non-domestic customers. Scottish Water would remain the monopoly wholesale supplier and sole household supplier, while licensed new entrants would be permitted to offer retail services to non-household customers. In order to ensure that both the incumbent and any new entrants would be able to compete for business on equal terms, Scottish Water was required to separate out its non-household retail operations for all other activities. The separated undertaking, subsequently named Business Stream, was required to apply to WICS for a retail licence and to adhere to its conditions in the same way as any retail competitor. WICS was also charged with facilitating market entry in an orderly manner and with ensuring that competition was not detrimental to the core functions of Scottish Water.³⁰⁰

²⁹⁷ See John W. Sawkins, “The introduction of competition into the Scottish water industry,” 20 *Utilities Policy* 22 (2012), 24.

²⁹⁸ Scottish Executive, *The Water Services Bill—The Executive’s Proposals. Consultation Paper* (2001), www.gov.scot/Resource/Doc/156343/0041940.pdf.

²⁹⁹ Discussed by Sawkins (2012), 24-25.

³⁰⁰ Sawkins (2012), 25-26.

The non-household retail market opened fully to competition on 1 April 2008.³⁰¹ After the market opened in April 2008, Business Stream gradually severed ties with Scottish Water: for example, it moved to separate business premises, and procured its own IT contracts.³⁰² Both Scottish Water and Business Stream remain part of the same group, however, and Business Stream continues to dominate the non-household market. Moreover, the on-going costs of operating a competitive retail market remain significant.³⁰³ Sawkins nevertheless suggests that the key achievement of the reforms may be to demonstrate that “market opening is possible, technically, legally and administratively, even in a potentially hostile political environment.”³⁰⁴

- England and Wales

In 2008, the United Kingdom Government (specifically, the Chancellor of the Exchequer, the Secretary of State for the Environment, Food and Rural Affairs and the Welsh Minister for the Environment, Sustainability and Housing) commissioned an independent review of competition and innovation in water markets in England and Wales, to be conducted by Professor Martin Cave. The aim of the Review, which published its final report in April 2009, was “to recommend changes to the frameworks of the industry to deliver benefits to customers and the environment.”³⁰⁵ At the time of the Review, the water sector was dominated by 21 vertically integrated monopolies, subject to demanding regulation by the industry regulator, Ofwat.³⁰⁶ In addition to rising water bills, it was commissioned against a background of new challenges for the water industry, in particular population growth and climate change.³⁰⁷

The Review took as a given the accepted view that the establishment of a national water grid had been assessed as cost-ineffective and highly energy intensive. It noted, nonetheless, that water companies were developing greater inter-connectivity to improve the supply-demand balance and the resilience of supply security.³⁰⁸

Amongst a wide variety of contemplated water industry reforms (including changes in relation to, *inter alia*, abstraction, retailing and R&D), the Review considered two dimensions of potential structural separation, relating to upstream and retail competition.

In relation to the upstream elements of the value chain (including water treatment, distribution, collection, wastewater treatment and sludge treatment and disposal), the Review noted the potential wide variety of ways in which such services might be provided, but acknowledged the barriers that exist to new entry for such supply in practice. Supply therefore remains dominated by local vertically integrated incumbents, with the result that prices, service and quality

³⁰¹ Sawkins (2012), 27.

³⁰² See the discussion in Oxera, *Agenda: Retail competition in water: next steps*, published August 2014.

³⁰³ Sawkins (2012), 28.

³⁰⁴ Sawkins (2012), 29.

³⁰⁵ See *Independent Review of Competition and Innovation in Water Markets: Final Report*, published April 2009, p.5.

³⁰⁶ *Ibid.*, p.6.

³⁰⁷ *Ibid.*

³⁰⁸ *Ibid.*, para.2.13.

standards and environmental outcomes are driven by regulation rather than market mechanisms.³⁰⁹ The Review thus explored the possibility that the upstream sector might make greater use of market-like models, through the introduction of further competition upstream. In addition to a “competition for the market” model, under which the existing process of determining supply of capacity would be replaced by contracting for all capacity or supplemented by contracting for new or replacement capacity,³¹⁰ the Review considered a “competition in the market” model. The latter would involve replacement of the current process of negotiation between incumbents and Ofwat by centralised trading arrangements between suppliers and retailers through an active central market agency such as a pool, or by bilateral negotiations between suppliers and retailers, with a passive central market agency. Under this model, individual suppliers would become responsible for the quality of treated water or discharges leaving their works, while infrastructure providers would be responsible for the physical integrity of the network and actual maintenance. In light of what the Review describes as the “much greater importance of the network operator,” it recommended that, should a “competition in the market” model be adopted, the incumbent could remain legally integrated, but that the network operators should be functionally separated. It added that “[l]egal separation may be required in due course.”³¹¹

The merits of a “competition in the market” model were identified as follows:

*A competition in the market approach would lead to optimisation within and across existing company boundaries as suppliers would have an interest in selling services at the highest price and buyers would have a strong incentive to reduce costs by minimising the cost of supply. Both of these would lead to a reduction in the need for new capacity. There would be on-going pressure to increase efficiency, service or quality over time...*³¹²

Nonetheless, the Review ultimately concluded that:

*While there is scope for introducing broader in the market competition in certain parts of the country, the cost-benefit ratio is more uncertain and, depending on the way such competition is introduced, there is a risk of significantly higher costs. These would take the form of transitional financing costs and an increased cost of capital on new and outstanding debt. These might be incurred before significant benefits from greater efficiency are felt. Such costs could affect both shareholders and consumers. I therefore do not recommend such an approach at this time, though it is likely that this analysis will change over time.*³¹³

In relation to the retail element of the value chain, the starting point of the Review was to reconsider the existing situation whereby only companies likely to use at least 50 mega-litres per year were permitted to choose their water retailer.³¹⁴ In addition to suggesting the reduction (or complete abolition) of the non-domestic consumption threshold for competition, the interim

³⁰⁹ *Ibid*, paras.4.3-4.6.

³¹⁰ *Ibid*, paras.4.45-4.54.

³¹¹ *Ibid*, paras.4.53-4.61.

³¹² *Ibid*, para.4.66.

³¹³ *Ibid*, para.4.109.

³¹⁴ *Ibid*, para.5.2.

report issued by the Review team had raised the possibility of introducing legal separation of both the household and non-domestic retail arms of water companies from the remainder of the appointees' business.³¹⁵ In its response to these interim findings, the United Kingdom Government stated that it was “strongly minded” to implement this suggestion, while the Welsh Assembly Government had requested further analysis of potential benefits.³¹⁶ The final report of the Review contained additional analysis of the potential costs and benefits, alongside the possible models by which legal separation might be implemented.³¹⁷ Taking the view that the hurdles to separation were not insurmountable, and that the likely benefits outweighed potential costs, the Review thus concluded that:

*Legal separation should be mandatory except where, for smaller companies, such separation could lead to unavoidable and unacceptably large bill increases to customers that outweighed the monetary and non-monetary benefits of such separation. Ofwat should advise government on whether a threshold is appropriate and if so, its level. In such cases, functional separation could remain appropriate.*³¹⁸

The suggestion of a functionally separate systems operator was pursued by Ofwat, which held a consultation on the issue in 2011.³¹⁹ Following negative comments from both regulated entities and several members of the Ofwat advisory panel, however, the suggestion of mandatory separation was withdrawn.³²⁰

In 2014, however, the United Kingdom Government passed the Water Act 2014, which provides a legislative framework for the introduction in April 2017 of non-household water retail competition in England, similar to that in Scotland. There will also be a cross-border market between England and Scotland.³²¹

3.4 Banking

The banking sector is an area that has seen considerable development with respect to structural separation in recent years, albeit to somewhat different ends than in the context of the conventional utilities sectors. Following the global financial crisis (GFC) that started in 2007, a number of jurisdictions have implemented or proposed a degree of mandatory structural reorganisation. Since banking is not a vertically integrated sector in the conventional sense, structural separation in this context refers to the segregation of distinct banking activities, which ranges from legal to full ownership separation. Moreover, in this context structural reforms have been deployed, primarily, to address market problems *other than* the typical hazards of vertical integration such as discrimination or foreclosure,

³¹⁵ *Ibid*, para.5.6.

³¹⁶ *Ibid*, paras.5.8-5.10.

³¹⁷ *Ibid*, para.5.19-5.41.

³¹⁸ *Ibid*, p.118; see also para.5.43.

³¹⁹ See Ofwat, *Future Pricing Limits—A Preliminary Model: Informal Consultation*, published March 2011, www.ofwat.gov.uk/future/monopolies/fpl/pap_con110405fpl_prelimmodel.pdf?download=Download.

³²⁰ Jon Stern & Jonathan Mirrlees-Black, “A Framework for Valuing Water in England and Wales,” 23 *Utilities Policy* 12 (2012), 17.

³²¹ See the discussion in Oxera, *Agenda: Retail competition in water: next steps*, published August 2014, www.oxera.com/Latest-Thinking/Agenda/2014/Retail-competition-in-water-next-steps.aspx.

although there is an argument that the conglomeration of functions within a single entity may have distorted the cost of funding for banks in certain instances. Thus, the banking sector provides what is arguably the strongest example to date of the potential uses of structural separation as a remedy outside the specific competition context. It must also be acknowledged, however, that the utility of its use in this instance has been vigorously disputed, particularly by certain industry participants.

The justifications for structural separation in the context of banking are numerous; criticisms of these rationales are almost as plentiful.³²² The primary justification advanced is a desire to increase financial stability and resilience in the banking sector. Structural separation can achieve or assist this key aim in a number of ways: it helps shield core activities, such as deposit-taking, from firm-wide contagion; it forces banks to focus on improving those core activities; it facilitates the imposition of additional capital requirements on core activities, which further reduces their risk of failure; it reduces moral hazard by curtailing the implicit state guarantee to institutions that were previously viewed as “too big to fail”; and the greater transparency it brings facilitates the supervision and, if necessary, the resolution of banks. A second justification, particularly prominent in the early history of United States banking regulation, is consumer protection: that is, the desire to protect banking clients from the adverse effects of any conflict of interests that may otherwise be faced by their banks. Finally, and linked to the moral hazard point outlined above, structural separation has found favour in the current political climate as an intended means of avoiding future banking “bailouts,” which have been a socially unpopular and, many argued, inequitable aspect of recent financial sector history.

Conversely, mandatory structural separation in the banking sector has been attacked on various grounds. First and perhaps foremost, critics argue that diversification can actually improve financial stability, by spreading risks across many different lines of business. For this reason, most of the recent efforts at structural separation have sought to preserve or at least permit diversification at group level, whilst avoiding the risks of moral hazard at the entity level. Structural separation is also costly, both in terms of costs of reorganisation and increased costs of compliance. Additional criticisms include the risk that separation might actually hinder successful bank resolution by rendering group structures significantly more complex; the fear that separation requirements at a national level might harm the international competitiveness of large domestic banks; the possibility that the loss of interconnectedness might increase dependency on funds provided by the central bank as lender of last resort; and the disadvantages for customers arising from the loss of “one-stop shopping” for banking services.

The examples set out below provide an illustration of the range of approaches to structural separation that have been adopted or proposed in recent years in response to the GFC. Notably, although each of the proposals seeks, broadly, to address the same underlying problems, the approaches adopted differ markedly across the differing jurisdictions. Lehmann has thus questioned the legal fragmentation of the global financial system that is likely to arise as a result, noting, *inter alia*, the loss of a level

³²² The discussion in this section is adapted from John Armour, “Structural Regulation of Banking” (2014), http://web.law.columbia.edu/sites/default/files/microsites/law-economics-studies/john_armour_structural_regulation_working_22.06.2014.pdf, pp.3-8, and Matthias Lehmann, “Volcker Rule, Ring-Fencing or Separation of Bank Activities: Comparison of Structural Reform Acts Around the World,” *LSE Law, Society and Economy Working Papers* 25/2014 (2014), at www.lse.ac.uk/collections/law/wps/WPS2014-25_Lehmann.pdf, at pp.2-5. See also Adrian Blundell-Wignall, Paul Atkinson and Caroline Roulet, “Bank business models and the separation issue,” *OECD Journal: Financial Market Trends*, Volume 2013/2, www.oecd.org/finance/Bank-Separation-2013.pdf, and Leonardo Gambacorta and Adrian van Rixtel, “Structural banking regulation initiatives: approaches and implications,” *BIS Working Papers* No 412, published April 2013, www.bis.org/publ/work412.pdf.

playing field for global actors, and the potential for regulatory arbitrage that may result.³²³ He does not dispute the need for *some* action to address the problems that became apparent during the GFC, however, and welcomes the opportunity for a degree of experimentation with different banking structures.³²⁴ The EU's proposal for harmonised structural separation demonstrates, nonetheless, greater recognition that a more streamlined approach to the regulation of these unavoidably global markets may be desirable.

United States

The United States has opted for what one might describe as a deep but narrow approach to structural separation in the banking sector: it now requires the highest level of separation of any jurisdiction, mandating full group-level ownership separation, but one that is relatively limited in scope, so that the “universal banking model” remains, by and large, perfectly legal.³²⁵

The United States has a long history of structural regulation within its banking sector, beginning with the Banking Act of 1933, also known as the Glass-Steagall Act. This legislation was intended to achieve the full ownership separation of commercial from investment banks at both the entity and the group level.³²⁶ It did so by placing activity restrictions on what entities carrying on commercial or, conversely, investment bank business were permitted to do, and on intra-group transactions. These prohibitions were supplemented by anti-circumvention provisions, designed to ensure that the entity-level restrictions could not be evaded via group structures, which restricted affiliation between entities subject to the primary restrictions.³²⁷ Perceived conflicts of interest between banks and their clients provided the underlying rationale for the 1933 Act, insofar as legislators were concerned that commercial banks might exploit their customers to benefit their own investment affiliates; which could be described as a consumer protection rationale.³²⁸

The Glass-Steagall Act was subject to sustained criticism, alongside lobbying efforts designed to secure its removal, in the latter half of the twentieth century. Regulated entities also began to test the boundaries of its prohibitions with their business activities, as, over time, bank regulators became more receptive to overlaps.³²⁹ A significant argument against the structural separation regime was a fear that it diminished the competitiveness of United States banks internationally, insofar as foreign rivals were not subject to equivalent restrictions. The structural separation requirements of the 1933 Act were finally abolished by the Gramm-Leach-Bliley Act of 1999, which permitted the combination of commercial banking, investment banking and insurance brokerage activities within a single entity.

The enthusiasm for deregulation that precipitated the end of the Glass-Steagall restrictions was, however, seriously diminished as a result of the global financial crisis. As noted, unduly lax regulation of the banking sector is considered to have at least contributed to the collapse of the financial sector from 2007. One of the first legislative responses internationally was the Dodd-Frank Act of 2010, §619 of

³²³ Lehmann (2014), at pp.15-17.

³²⁴ Lehmann (2014), at p.17.

³²⁵ See Lehmann (2014), at p.7.

³²⁶ See Armour (2014), at 2.

³²⁷ Armour (2014), at 15.

³²⁸ Armour (2014), pp.8-9.

³²⁹ Armour (2014), p.19.

which reinstates various group-level restrictions on banking activities. Known as the “Volcker Rule,” it prohibits banking entities (insured depository institutions and their affiliates) from:

- engaging in proprietary trading;
- acquiring or retaining any equity, partnership, or other ownership interest in a hedge fund or private equity fund; or
- sponsoring a hedge fund or a private equity fund.

There are exceptions for certain brokerage transactions, market-making activities that do not exceed the near term demands of clients and counterparties, underwriting, risk-mitigating hedging in relation to the assets of a bank, and for various categories of permitted investments including public securities.³³⁰ Although the ban on proprietary trading is due to take effect from 1 July 2015, implementation of other aspects of the rule has been delayed until 2017, in part as a result of successful lobbying efforts by regulated entities.³³¹

In addition to the (renewed) innovations of the Volcker Rule with respect to group-level activities, the long-standing restrictions with respect to intra-group and entity-level activities remain in force.³³²

United Kingdom

In June 2010, an Independent Commission on Banking (“Commission”) was established by the UK Government, under the Chairmanship of Sir John Vickers, to consider potential structural and related non-structural reforms to the United Kingdom banking sector to promote, expressly, both financial stability and competition. Following a series of public consultations, the Commission issued its final report in September 2011, recommending a series of far-reaching structural reforms in addition to other regulatory amendments.³³³

In particular, the Commission recommended that a “*high ring fence be placed around vital retail banking activities in the UK.*”³³⁴ In doing so, it proposed the following statement of purpose and objectives:

The purpose of the retail ring-fence is to isolate those banking activities where continuous provision of service is vital to the economy and to a bank’s customers in order to ensure, first, that this provision is not threatened as a result of activities which are incidental to it and, second, that such provision can be maintained in the event of the bank’s failure without government solvency support.

³³⁰ Armour (2014), pp.19-21.

³³¹ See BBC New, “Federal Reserve delays parts of Volcker Rule until 2017,” published 18 December 2014, www.bbc.co.uk/news/business-30542643.

³³² Armour (2014), pp.15-18.

³³³ Independent Commission on Banking, *Final Report. Recommendations*, published September 2011, at 1.1.

³³⁴ Independent Commission on Banking, at 2.27.

In designing the retail ring-fence, two key areas for consideration were identified: first, the activities that must or could take place within ring-fenced banks, and conversely within wholesale/investment banks; and, second, the degree of separation to be required between ring-fenced and wholesale/investment banks.³³⁵ To determine these issues, the Commission identified five core “ring-fence principles” that determine how a ring-fence should be introduced, and which were, moreover, designed to keep pace with financial innovation.³³⁶ The principles comprise the following:³³⁷

1. **Mandated services:** only ring-fenced banks should be granted permission by the United Kingdom regulator to provide mandated services. Mandated services should be those banking services where:
 - even a temporary interruption to the provision of service resulting from the failure of a bank has significant economic costs; and
 - customers are not well equipped to plan for such an interruption.

Mandated services currently comprise the taking of deposits from, and the provision of overdrafts to, individuals and small and medium-sized organisations.
2. **Prohibited services:** Ring-fenced banks should be prohibited from providing certain services. Prohibited services should be those banking services which meet any of the following criteria:
 - make it significantly harder and/or more costly to resolve the ring-fenced bank;
 - directly increase the exposure of the ring-fenced bank to global financial markets;
 - involve the ring-fenced bank taking risk and are not integral to the provision of payments services to customers, or the direct intermediation of funds between savers and borrowers within the non-financial sector; or
 - in any other way threaten the objectives of the ring-fence.
3. **Ancillary activities:** the only activities which a ring-fenced bank should be permitted to engage in are: the provision of services which are not prohibited; and those ancillary activities necessary for the efficient provision of such services. Ancillary activities should be permitted only to the extent they are required for this provision, and not as standalone lines of business.
4. **Legal and operational links:** where a ring-fenced bank is part of a wider corporate group, the authorities should have confidence that they can isolate it from the rest of the group in a matter of days and continue the provision of its services without providing solvency support.

As a result:

³³⁵ Independent Commission on Banking, at 3.5.

³³⁶ Independent Commission on Banking, at 3.6-3.7.

³³⁷ Discussed in detail in Chapter 3, Independent Commission on Banking, and summarised at 9.2.

- ring-fenced banks should be separate legal entities – i.e. any United Kingdom regulated legal entity which offers mandated services should only also provide services which are not prohibited and conduct ancillary activities.

5. **Economic links:** where a ring-fenced bank is part of a wider corporate group, its relationships with entities in that group should be conducted on a third-party basis and it should not be dependent for its solvency or liquidity on the continued financial health of the rest of the corporate group. This should be ensured through both regulation and sufficiently independent governance.

In arriving at its conclusion that structural separation of this variety is appropriate, the Commission identified what it saw as the three key arguments in favour of some degree of structural separation between retail and wholesale/investment banking:

- Separation would make it easier to resolve banks that get into trouble (i.e. manage the process of failure in a sale and orderly way), without the need for taxpayer support.
- Separation would insulate vital banking services on which households and small and medium-sized enterprises (SMEs) depend from problems elsewhere in the (global) financial system, by, *inter alia*, reducing the interconnectedness (and hence the systemic risk) of the financial system as a whole.
- Separation would curtail implicit government guarantees, thus reducing the risk to the state whilst also making it less likely that banks would run excessive risks in the first place.³³⁸

These benefits/goals were subsequently reflected in the proposed statement of objectives of the retail ring-fence.³³⁹ The Report also noted that separation accompanied by appropriate transparency should assist the monitoring of banking activities by both market participants and the authorities.³⁴⁰

The Commission rejected the argument (advanced by many banking sector participants) that the costs of structural separation are too great relative to its benefits, arguing instead that the greater financial stability to be achieved through the reforms could not be achieved effectively without some measure of structural separation.³⁴¹ On the other hand, the issue of costs relative to benefits informed the Commission's decision to opt against total separation, as opposed to a legal ring-fencing approach. In particular, it took the view that: total separation was likely to have higher economic costs than ring-fencing in terms of efficient intermediation between saving and investment, diversification of risk, and customer synergies; it was not clear that total separation would bring further benefits in terms of financial stability; and total separation was harder to enforce within the EU insofar as universal banks located in other Member States would remain entitled to own United Kingdom retail banking operations.³⁴²

³³⁸ Independent Commission on Banking, at 2.6-2.10.

³³⁹ Independent Commission on Banking, at 3.3.

³⁴⁰ Independent Commission on Banking, at 3.4.

³⁴¹ Independent Commission on Banking, at 2.11-2.12, and 5.43-5.78.

³⁴² Independent Commission on Banking, at 2.15.

The proposal on ring-fencing was complemented by a recommendation regarding greater loss-absorbing capacity requirements for United Kingdom banks (with respect to both retail and wholesale/investment activities), designed to complement the stability-enhancing effects of the proposed structural reforms.³⁴³ The Commission also considered broader competition issues with respect to competition in retail banking markets in the United Kingdom, making recommendations with respect to, *inter alia*, regulation and switching.³⁴⁴

The recommendations of the Commission have now been implemented through the Financial Services (Banking Reform) Act 2013.³⁴⁵ This introduces, amongst other things, ring-fencing for retail deposit, overdraft and associated services, to be administered by the Prudential Regulation Authority. The Act incorporates a *de minimis* exception,³⁴⁶ whereby the ring-fencing requirements apply only to United Kingdom-incorporated entities with “core deposits” if their corporate group holds in aggregate more than GBP 25bn of such deposits. The Act also strives to avoid extraterritorial effect, insofar as it does not apply to United Kingdom branches of foreign banks or overseas subsidiaries of United Kingdom banks, although it does cover United Kingdom subsidiaries of non-United Kingdom banks that fall within the thresholds. In response to suggestions that the reforms should further incorporate some variety of a “Volcker Rule,” the Government noted the “...*significant difficulties in defining proprietary trading as distinct from market-making..., the technical challenges encountered in the course of the US implementation of the ‘Volcker rule’, and the risks noted by Sir John Vickers that the complexity of an additional ban on proprietary trading could, by distracting regulatory focus, prove detrimental to the ring-fence.*”³⁴⁷ The Government is currently consulting on the rules necessary to implement the ring-fencing provisions in practice, with the aim of having these provisions finalised by 2016. Banks must be compliant with the ring-fencing rules by 2019.

France

The approaches to structural separation in France and Germany were closely coordinated between their governments, both in terms of the requirements of the mandatory structural reforms and the timeframes for implementation. Certain variations between the details of the different regime exist, however.³⁴⁸

³⁴³ Independent Commission on Banking, Chapter 4.

³⁴⁴ Independent Commission on Banking, Chapters 7 and 8.

³⁴⁵ The discussion in this paragraph is adapted from the Financial Stability Board’s Report to G20 Leaders for the November 2014 Summit on *Structural Banking Reforms Cross-border consistencies and global financial stability implications*, published 27 October 2014, www.financialstabilityboard.org/wp-content/uploads/r_141027.pdf?page_moved=1, at pp.7-8.

³⁴⁶ This was expressly excluded from the Commission’s recommendations: see Independent Commission on Banking, at 3.15: “On balance, the Commission is not persuaded of the need for any *de minimis* exemption from the ring-fence principles.”

³⁴⁷ See Department for Business, Innovation & Skills, *Banking Reform: a new structure for stability and growth* (Cm 8545), published February 2013, www.gov.uk/government/uploads/system/uploads/attachment_data/file/228995/8545.pdf, at 2.35.

³⁴⁸ Lehmann (2014), at pp.8-9.

The French rules on structural separation in the banking sector are contained in Loi n° 2013-672, published on 27 July 2013.³⁴⁹ In relation to the separation of proprietary trading activities, the law prohibits:

- credit institutions, financial companies and mixed financial companies from carrying out proprietary trading activities in financial instruments, when their trading activities in financial instruments exceed thresholds to be determined by decree, with certain exceptions; *and*
- credit institutions from entering into any unsecured transactions for their own account involving (a) leveraged collective investment schemes, (b) other similar investment vehicles, or (c) collective investment schemes invested in or exposed to leveraged collective investment schemes or other similar investment vehicles when such investment or exposure exceeds the threshold to be determined by ministerial decree.

These prohibited activities may, however, be provided by a trading subsidiary of the credit institution concerned that is dedicated to such activities. The relevant trading subsidiary must be licensed as an investment firm or credit institution in its own right. Such institutions will not be permitted to receive deposits from the public that benefit from the deposit guarantee scheme nor to provide payment services to clients whose deposits benefit from such guarantees.

The law does not, however, provide for a general ban on proprietary trading, insofar as institutions are authorised to carry on proprietary trading activities in financial instruments that relate to:

- the provision of investment services to clients;
- the clearing of financial instruments;
- the hedging of risks incurred by the credit institution or group;
- market-making activities;
- sound and prudential management of the group's own assets, as well as of financial transactions between the parent institutions and their trading subsidiaries; *and*
- investment transactions of the group within the meaning of Article L. 511-20 of the French *Code monétaire et financier*.

The credit institutions concerned are required to identify the prohibited activities to be transferred by 1 July 2014, and then to transfer these activities to a trading subsidiary by 1 July 2015.

Loi n° 2013-672 also makes provision for the reform of certain French financial supervisory authorities; it creates a new regime for the recovery and resolution of certain banking and financial institutions; it amends the regime applicable to clearing houses in France; and introduces a series of reforms relating to, *inter alia*, anti-money laundering, tax evasion and capping of remuneration for financial sector employees.

³⁴⁹ Details on the content of the French law are taken from Ashurst Paris, "France – Law on the separation and regulation of banking activities," published August 2013, www.ashurst.com/doc.aspx?id_Content=9486.

Germany

On 6 February 2015, the German Federal Government introduced a draft bill for a law on the separation of risks and the recovery and resolution planning for credit institutions (*Entwurf eines Gesetzes zur Abschirmung von Risiken und zur Planung und Sanierung und Abwicklung von Kreditinstituten*). This was subsequently passed by the Bundestag on 17 May 2013, and by the Bundesrat on 7 June 2013.³⁵⁰

On the issue of structural separation, the German law introduces a prohibition on any deposit-taking credit institution, as well as companies that belong to a group of institutions, a financial holding group, a mixed financial holding group or a financial conglomerate that includes a deposit-taking credit institution, from engaging in certain activities that are considered to be speculative or high risk, namely proprietary trading activities. These include the purchase or sale of financial instruments for that company's own account that do not constitute a service for others, high-frequency trading, and lending and guarantee transactions with hedge funds, funds of hedge fund or their management companies or with highly leveraged alternative investment funds or their management companies. Exceptions to the prohibition on proprietary trading, however, include:

- activities for hedging transactions with clients, and for the purposes of interest rate, currency, liquidity and credit risk management of the credit institution;
- activities for the purchase and sale of long-term investments and transactions that are not intended to take advantage of short-term market fluctuations;
- dealing on own account that constitutes a service for others, such as fixed price transactions or clearing and payment transactions;
- market making;
- activities for hedging the risks of clients;
- activities in connection with the trading of financial instruments, in particular conducting the principal broking business or the underwriting business;
- acting as a central counterparty on an exchange investment brokerage;
- the placement of financial instruments without a firm commitment; and
- financial portfolio management.

The prohibition only applies to institutions that exceed a certain value, namely if the trading assets concerned exceed EUR 100 billion, or, where the total assets of the financial institution or the group have reached at least EUR 90 billion in each of the last three financial years, if the trading activities exceed 20 per cent of the total assets of the institution or group. Additionally, the Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht) is empowered to prohibit deposit-taking credit institutions or companies that belong to a group that includes such institutions from conducting certain activities, irrespective of whether the specific value thresholds are exceeded, where it considers that those activities threaten to put at risk the solvency of the company.

³⁵⁰

Details on the content of the German law are taken from Freshfields Bruckhaus Deringer, "Briefing: Law on the separation of risks and the recovery and resolution planning for credit institutions," published June 2013, www.freshfields.com/uploadedFiles/SiteWide/Knowledge/36262.pdf.

As with the French law, such activities may continue to be carried out by a separate financial trading institution that may belong to the same group of companies concerned. Any separate trading institution must comply with the requirements of the German Banking Act (Kreditwesengesetz, KWG) regarding the legal status of the institution, meaning that it must be licenced to carry out proprietary trading activities where necessary. Moreover, it must be operated as an economically, organisationally and legally independent company to which no waiver under section 2a of the KWG can be applied. Refinancing must be organised separately from the parent company, although purely administrative support services provided by the group are permitted.

In addition to structural separation of trading activities, the German law makes provision for “living wills” for systematically important financial institutions, and introduces criminal liability for violations of risk management requirements committed by senior management.

European Union

Structural reform of the banking sector at a EU-wide level has also been mooted in response to the global financial crisis. In February 2012, Commissioner Michel Barnier, who had responsibility for the Internal Market and Services, established a High-level Expert Group (HLEG) to consider potential structural bank reforms, chaired by Erkki Liikanen. Following various consultations with stakeholders, the HLEG published its Final Report in October 2012, in which it recommended, amongst other things, a degree of structural separation for certain European banks.³⁵¹

The Report began by considering the recent financial crisis within the EU banking sector (and beyond) in detail. It noted the diversity of this sector across the EU, which can be a benefit insofar as diversity tends to improve resilience, but also noted that no single banking model had fared particularly well, or particularly poorly, in the financial crisis. Instead, it pointed to “excessive risk-taking—often in trading highly complex instruments or real estate related lending—and excessive reliance on short-term funding in the run up to the financial crisis. The risk-taking was not matched with adequate capital protection and high level of systemic risk was caused by strong linkages between financial institutions.”³⁵²

The Report then assessed two possible avenues for reform: the first, to strengthen the regulation of banks, including capital requirements and resolution plans; the second, to require mandatory separation of banks’ proprietary trading and other risky activities. Whilst acknowledging the likely benefits of more effective regulation, the Report concludes that, “*it is necessary to require legal separation of certain particularly risky financial activities from deposit-taking banks within the banking group. The activities to be separated would include proprietary trading of securities and derivatives, and certain other activities closely linked with securities and derivatives markets.*”³⁵³ Structural separation was explained and justified in the following terms:

The central objectives of the separation are to make banking groups, especially their socially most vital parts (mainly deposit-taking and providing financial services to the non-financial

³⁵¹ See High-level Expert Group on reforming the structure of the EU banking sector chaired by Erkki Liikanen, *Final Report*, published Brussels, 2 October 2012, http://ec.europa.eu/internal_market/bank/docs/high-level_expert_group/liikanen-report/final_report_en.pdf.

³⁵² HLEG, p.99.

³⁵³ HLEG, p.100.

*sectors in the economy) safer and less connected to trading activities; and, to limit the implicit or explicit stake taxpayer has in the trading parts of banking groups. The Group's recommendations regarding separation concerns businesses which are considered to represent the riskiest parts of investment banking activities and where risk positions can change most rapidly. Separation of these activities into separate legal entities is the most direct way of tackling banks' complexity and interconnectedness. As the separation would make banking groups simpler and more transparent, it would also facilitate market discipline and supervision and, ultimately, recovery and resolution.*³⁵⁴

The Report thus recommended that proprietary trading and all assets or derivative positions incurred in the process of market-making, other than certain exempted activities, should be assigned to a separate legal entity, which could be in investment firm or a bank (termed the “trading entity”) within a banking group. Separation would only be mandatory, however, if the activities to be separated amounted to a significant share of a bank’s business, or if the volume of these activities could be considered “*significant from the viewpoint of financial stability.*” The HLEG suggested a two-stage test to make such a determination:

- first, the bank’s assets held for trading and available for sale must exceed either a relative examination threshold of 15-25% of the bank’s total assets or an absolute examination threshold of EUR 100 billion; if satisfied;
- second, supervisors would determine the need for separation based on the share of assets to which the separation requirement would apply; the threshold, as a share of the bank’s total assets, would be calibrated by the Commission.

Once a bank exceeded the final threshold, all the activities concerned would have to be transferred to a legally-separated (but not ownership-separated) trading entity. Thus, the legally-separate deposit bank and the trading entity could operate within the same bank holding company structure, in order to maintain banks’ ability efficiently to provide a wide range of financial services to their customers and thus preserve the benefits of diversity. The provision of hedging services to non-banking clients which fall within narrow (to be defined) position risk limits in relation to own funds, as well as securities underwriting and related activities would not have to be separated. To ensure the resilience of both types of entities, however, both the deposit bank and the trading entity would each individually be subject to all the regulatory requirements which pertain to EU financial institutional.³⁵⁵

The HLEG also made a number of recommendations regarding bank recovery and resolution plans, use of designated bail-in instruments, determination of minimum capital standard, as well as the augmentation of existing corporate governance reforms.

In January 2014, building upon the recommendations of the HLEG, the European Commission issued a Proposal for a Regulation on “structural measures improving the resilience of EU credit institutions”.³⁵⁶ The Proposal followed various additional public consultations held by the Commission with stakeholders, as well as an own-initiative report from the European Parliament that welcomed

³⁵⁴ HLEG, p.100.

³⁵⁵ HLEG, pp.101-102.

³⁵⁶ European Commission, Proposal for a Regulation of the European Parliament and of the Council on structural measures improving the resilience of EU credit institutions (COM(2014) 43 final), published 29 January 2014.

structural reform measures at EU level to tackle concerns on “too-big-to-fail” banks.³⁵⁷ Recital (12) to the draft Regulation sets out the following objectives:

*This Regulation intends to reduce excessive risk taking and rapid balance sheet growth, difficult resolution, difficult monitoring, conflicts of interest, competition distortions, and misallocation of capital. It also intends to shield institutions carrying out activities that deserve a public safety net from losses incurred as a result of other activities. Necessary rules should therefore contribute to refocusing banks on their core relationship-oriented role of serving the real economy, and avoid that bank capital be excessively allocated to trading at the expense of lending to the non-financial economy.*³⁵⁸

In order to do so, the proposed Regulation would do the following:

- Prohibit proprietary trading³⁵⁹ by any credit institution that is either identified as a “global systemically important institution,” or which has total assets amounting to at least EUR 30 billion and has trading activities that amount to at least EUR 70 billion or 10 per cent of its total assets,³⁶⁰ and
- Prohibit such entities, acting for the sole purpose of making a profit for its own account, from acquiring or retaining units or shares in alternative investment funds (AIFs); investing in derivatives or other financial instruments the performance of which is linked to AIFs; or holding any units or shares in an entity that engages in proprietary trading or acquires units or shares in AIFs.³⁶¹

Moreover, Chapter 3 of the Regulation would empower a “competent authority”³⁶² to review and assess “trading activities”³⁶³ of “core credit institutions”³⁶⁴ on an annual basis, with a particular emphasis

³⁵⁷ *Ibid*, pp.2-4.

³⁵⁸ *Ibid*,

³⁵⁹ Defined under Article 5(4) of the draft Regulation to mean “using own capital or borrowed money to take positions in any type of transaction to purchase, sell or otherwise acquire or dispose of any financial instrument or commodities for the sole purpose of making a profit for own account, and without any connection to actual or anticipated client activity or for the purpose of hedging the entity’s risk as result of actual or anticipated client activity, through the use of desks, units, divisions or individual traders specifically dedicated to such position taking and profit making, including through dedicated web-based proprietary trading platforms”.

³⁶⁰ Draft Article 3 defines the entities to which the Regulation will apply; draft Article 4 defines the entities to which the Regulation shall not apply.

³⁶¹ Both prohibitions on “certain trading activities” are set out in draft Article 6.

³⁶² Defined by Article 5(7) of the draft Regulation to mean “a competent authority as defined in point (40) of Article 4(1) of Regulation (EU) No 575/2013, including the ECB in accordance with Council Regulation (EU) No 1024/2013”.

³⁶³ Defined by draft Article 8(1) to include activities *other than* “taking deposits that are eligible under the Deposit Guarantee Scheme in accordance with Directive 94/19/EC of the European Parliament and of the Council; lending, including consumer credit, credit agreements relating to immovable property, factoring with or without recourse, financing of commercial transactions (including forfeiting); financial leasing; payment services as defined in Article 4(3) of Directive 2007/64/EC of the European Parliament and of the Council; issuing and administering other means of payment such as travellers’ cheques and bankers’

on market making, investments in and acting as a sponsor for securitisation, and trading in certain types of derivatives.³⁶⁵ Where, following this assessment, the competent authority concludes that there is “a threat to the financial stability of the core credit institutions or to the Union financial system as a whole,” it will be required to adopt a binding decision requiring the core credit institution concerned not to carry out the trading activities specified in its conclusions.³⁶⁶ The credit institution concerned will, nonetheless, be permitted to carry out trading activities to the extent that the purpose is limited to only prudentially managing its own capital, liquidity and funding.³⁶⁷ Moreover, where the institution concerned belongs to a group, the trading activities to be separated may be carried out by another group entity provided that it is legally, economically and operationally separate from the core credit institution.³⁶⁸ The Regulation furthermore makes detailed provision with respect to the process of separation in practice.

Notably, given that various Member States have already adopted measures intended to introduce a degree of structural separation into their banking sectors to increase financial stability, the draft Regulation contains a derogation from the proposed Chapter 3 rules on mandatory separation. In particular, the Commission would be permitted to grant derogation from the separation rules to a credit institution taking deposits from individuals and SMEs that are subject to national primary legislation adopted before 29 January 2014 when the national legislation fulfilled the following requirements:

- It aims to prevent financial stress or failure and systemic risk;
- It prevent credit institutions taking eligible deposits from individuals and SMEs from engaging in the regulated activities of dealing in investments as principal and holding trading assets; *and*
- Where the credit institution concerned is part of a group, it requires at least legal separation between the deposit-taking entity and any group entity that engages in the regulated activity of dealing in investments as a principle or that hold trading assets.³⁶⁹

The proposed Regulation requires the approval of both the Council of the European Union and the European Parliament before it can be enacted formally. In November 2014, the European Central Bank issued a generally favourable Opinion in respect of the proposed Regulation, albeit recommending, amongst other things, greater definitional clarity as well as greater discretion for competition supervisors in relation to any decision to require separation.³⁷⁰ Little apparent progress was made on this issue during

drafts...; money broking, safekeeping and administration of securities; credit reference services; safe custody services; [and] issuing electronic money.”

³⁶⁴ Defined by draft Article 5(16) as “a credit institution that at a minimum takes deposits eligible under the Deposit Guarantee Scheme in accordance with Directive 94/19/EC”.

³⁶⁵ Draft Article 9.

³⁶⁶ Draft Article 10.

³⁶⁷ Draft Article 11.

³⁶⁸ Draft Article 13.

³⁶⁹ Draft Article 21.

³⁷⁰ See Opinion of the European Central Bank of 19 November 2014 on a proposal for a regulation of the European Parliament and of the Council on structural measures improving the resilience of EU credit institutions (CON/2014/83).

2014, although structural reform of the EU banking sector remains on the work programme of the Commission for 2015.³⁷¹

3.5 Bus Services

Bus services were considered at a potential candidate for structural separation at the meeting of Working Part No.2 on Competition and Regulation in December 2014, with a presentation from the United Kingdom delegation on this topic. Bus services have a vertically integrated aspect, insofar as service providers require access both to bus stations (for picking up and dropping off passengers, and associated services) and to bus depots (for parking, maintaining and repairing buses). Accordingly, some bus stations, in particular, can have characteristics of an “essential facility,” especially if located in busy urban locations. Bus depots may be less likely to display such characteristics, as location is typically less vital in this context. If availability of depot facilities is limited for some reason (e.g. scarcity of land), however, competition issues may arise.

The delegate from the United Kingdom described the two distinct models of competition for bus services in that country. Within London, all services are provided under a privatised route-based franchising model, with competition for the market, i.e. specific bus routes. Outside of London, routes and service provisioning is primarily decided on a commercial basis by bus companies, with competition within markets as the predominant model. Within London, a degree of “structural separation” is the norm. Bus stations are typically owned and operated by Transport for London (TfL), a local government body that administers the franchising process. In this respect, TfL performs a role akin to that of an Independent Systems Operator for bus services in London. It can also take advantage of synergies arising from integration, insofar as it determines routes and timetables. Although bus depots within London were included in privatisation alongside bus fleets, the route-based franchising model, coupled with the long bus routes found within the London area, means that competition between integrated bus companies operating from their own depots has been possible. Outside of London, however, access issues have been more problematic, and indeed were the subject of a specific market investigation by the Competition Commission.

3.5.1 *The United Kingdom Competition Commission’s Local Bus Services Market Investigation*

In 2011, the United Kingdom’s Competition Commission, acting at the request of the (then) Office of Fair Trading, issued a detailed report on the supply of local bus services in the United Kingdom (excluding Northern Ireland and London).³⁷² The Report considered, *inter alia*, whether access to bus stations and bus depots might operate as a barrier to entry and expansion into such markets. Five large privately owned operators provided 69 per cent of all local bus services in the area concerned, while medium-sized operators (both privately- and municipally-owned) provided the large majority of the remainder.³⁷³

³⁷¹ See European Banking Federation E-News, “European Commission maintains its Banking Structural Reform proposal,” published 19 December 2014, <http://enews.ebf-fbe.eu/2014/12/european-commission-maintains-its-banking-structural-reform-proposal/>.

³⁷² Competition Commission, *Local bus services market investigation. A report on the supply of local bus services in the UK (excluding Northern Ireland and London)*, published on 20 December 2011.

³⁷³ Although there were approximately 1,245 operators running local bus services in the reference area, 95 percent of all services were provided by 219 operators: *ibid*, para.2.43.

On the issue of access to bus stations, the Report noted that bus stations can be owned by local authorities, by private companies that are not local bus operators (such as shopping centres or airport operators), or by local bus operators. Most bus stations used by the five large operators were owned and operated by local authorities. The Report observed that the owner of a bus station is not necessarily its manager or operator, however, and that operation of stations owned by private companies other than local bus operators tended to be outsourced to a local bus operator.³⁷⁴ While, in most instances, bus companies did not experience difficulties in terms of accessing stands and other facilities provided at stations, a minority of respondents reported problems where the station concerned was owned and/or operated by a rival bus company.³⁷⁵ Potential restrictions on access included discriminatory allocation of stands and/or layover capacity; poor management of stand capacity and more general restrictions on the capacity available to new entrants; as well as restrictions on the ability of drivers to access certain facilities available at the bus station.³⁷⁶ Although the incidence of such problems was limited to date, the Report found that the potential for such problems to arise existed wherever the manager of a bus station had the incentive and ability to use that position to raise a rival's costs.³⁷⁷

Moreover, the Report documented a number of complaints received in respect of excessively high charges for use of bus stations, in particular where a station was operated by a rival bus operator. The average departure charge was GBP 0.36 per departure at stations operated by local authorities; GBP 0.49 at bus stations operated by private companies; and GBP 1.06 at bus stations operated by local bus operators. Considering the prices charged at 17 privately-owned bus stations that were managed by a local bus operator, the Report identified clear evidence of discriminatory pricing for access:

*Based on the comparisons of the third-party charges per departure on local bus operators, with the residual cost per own departure for each bus station... we found that for 13 out of the 17 bus stations (76 per cent), the charge per departure levied on third-party local bus operators was higher than the residual cost per 'own' departure. We found that the third-party departure charge could be from 1.2 to up to 7.4 times the residual cost per own departure, with an average multiple of 2.7 times. We also calculated that if bus station operators levied a departure charge on its own buses at the same level as it did on third-party local bus operators, 12 of our selected 17 bus stations would be generating operating profit margins in excess of 20 per cent.*³⁷⁸

It thus held that the level of departure charges set at bus stations could have the effect of disadvantaging other operators compared with the owner/managing operator.³⁷⁹

The Report concluded, accordingly, that, where a new entrant found itself dependent on the conduct of an incumbent rival operator that managed a bus station in order to allow it to compete effectively

³⁷⁴ *Ibid*, paras.9.129-9.130.

³⁷⁵ *Ibid*, paras.9.131-9.146.

³⁷⁶ *Ibid*, para.9.158.

³⁷⁷ *Ibid*, para.9.159.

³⁷⁸ *Ibid*, para.9.155.

³⁷⁹ *Ibid*, para.9.160.

against that operator's services, any consequent difficulties in securing access to a bus station was likely to constitute a significant barrier to entry.³⁸⁰

On the issue of access to depots, the report found that depots were required for entry on a significant scale, although alternative methods such as outstations could be utilised for smaller-scale activities. The ease of accessing depots varied significantly across the area concerned. In terms of access to new depot facilities, however, the Report did not consider in any detail the possibility of sharing (whether voluntary or mandatory) of existing facilities, but focused instead on the development of new depot facilities. It noted that this could be a problem in some areas, due to high land prices, other costs, or the difficulty of obtaining planning permission (for example, due to traffic or other environmental concerns).³⁸¹ It thus concluded that the difficulty in finding suitable depots could constitute a barrier to entry and expansion.³⁸²

To address these concerns, which the Report identified as contributing factors leading to an "adverse effect on completion" (AEC), the Competition Commission chose to adopt a mandatory Order implementing a "FRND access remedy".³⁸³ The Order regulates access to bus stations that are managed by local bus operators, requiring them to provide access to other operators on a fair, reasonable and non-discriminatory basis. Specifically, the Order requires bus station managers: to publish conditions of use for bus stations, including information about capacity and charges; to enter into a written contract with each user, incorporating the conditions of use; to have in place dispute resolution procedures for any disputes regarding access or charges; and, in the event of such a dispute, to demonstrate that charges have been calculated on FRND principles. Where disputes cannot be settled consensually, the Order also makes provision for involvement of independent experts and/or the local transport authority.³⁸⁴

At the meeting in December 2014, however, the delegate from the United Kingdom cautioned against an over-simplified view of access remedies in this context. Although bus services present a relatively straightforward market, access controls often require detailed specification, and thus may nonetheless prove complicated to devise. Moreover, on-going monitoring and enforcement has proven complex in this sector. The delegate from the United Kingdom noted that, in this market as in others, it is generally easier to establish structural separation at the point of privatisation rather than afterwards. In thinking about structural separation, policymakers should seek to avoid creating horizontal market power, and also need to consider the potential loss of synergies that may arise from separation. Not all infrastructure assets are likely to constitute essential facilities in the context of bus services, furthermore; in particular, the case for depot facilities as indispensable infrastructure is likely to be weaker than that for bus stations in most instances.

3.6 Payment Systems

Payment systems comprise the infrastructure by which people and institutions transfer monetary value. Examples include credit and debit cards, and other electronic processing schemes. Payment systems are of central importance to almost every aspect of commerce within developed economies. Like credit reporting agencies, payment systems may demonstrate a degree of vertical integration, insofar as

³⁸⁰ *Ibid*, paras.9.161 and 14.7.

³⁸¹ *Ibid*, paras. 9.162-9.173.

³⁸² *Ibid*, para.14.7.

³⁸³ *Ibid*, para.15.224.

³⁸⁴ *Ibid*, paras.15.222-15.290.

many systems are owned (and controlled) by consortia of large credit institutions. The experiences below touch upon the competition problems that may consequently arise, in the guise of exploitation of captured customers (for example, through setting excessively high multilateral interchange fees), or denials of access to essential infrastructure.

European Union

A degree of harmonisation has taken place at EU level with respect to the operation of payment systems.³⁸⁵ Moreover, the Commission has actively pursued the interchange fees charged by both VISA and MasterCard pursuant to competition law enforcement.³⁸⁶ The Commission has argued, and the Court of Justice has confirmed,³⁸⁷ that concerted (albeit non-secret) price setting by the banking undertakings that make up both the VISA and MasterCard network amounts to an anti-competitive agreement or decision of association of undertakings, contrary to Article 101 TFEU, where those fees are set at excessive levels. In July 2013, these efforts culminated in the publication of a formal Proposal for a EU-wide Regulation to set the maximum interchange fees that can be charged by four-party payment systems for consumer debit and credit card transactions in the EU.³⁸⁸ Thus Regulation 2015/751, which entered into force in June 2015,³⁸⁹ establishes maximum interchange rates of 0.2% for debit transactions and 0.3% of credit transactions.³⁹⁰ Although lower than the rates set by many payment card systems individually, are in line with the rates agreed by Visa and MasterCard in order to settle the various antitrust investigations brought by the Commission. Moreover, Article 7 of the Regulation mandates a degree of separation between payment card schemes, such as Visa and MasterCard, and processing entities, namely any natural or legal person providing payment transaction processing services. Specifically, payment card schemes and processing entities: must be independent in terms of accounting, organisation and decision-making processes; cannot bundle prices for payment card scheme and processing activities nor cross-subsidise such activities; and must abide by obligations of non-discrimination in the provision of services. The idea underlying these requirements is that processing

³⁸⁵ See Directive 2007/64/EC of the European Parliament and of the Council of 13 November 2007 on payment services in the internal market amending Directives 97/7/EC, 2002/65/EC, 2005/60/EC and 2006/48/EC and repealing Directive 97/5/EC (OJ L 319/1, 5.12.2007), and European Commission, *Proposal for a Directive of the European Parliament and of the Council on payment services in the internal market and amending Directive 2002/65/EC, 2013/36/EU and 2009/110/EC and repealing Directive 2007/64/EC* (COM(2013) 547 final), published 24 July 2013.

³⁸⁶ See Commission Decision of 24 July 2002 in Case COMP/29.373 — *Visa International — Multilateral Interchange Fee* (OJ L 318/17, 22.11.2002); Commission Decision of 8 December 2010 in Case COMP/39.398 — *VISA MIF* (OJ C 79/8, 12.3.2011); Commission Decision of 26 February 2014 in Case AT.39398 *Visa MIF* (OJ C 147/7, 16.5.2014); and Commission Decision of 19 December 2007 in Cases COMP/34.579 — *MasterCard*, COMP/36.518 — *EuroCommerce*, and COMP/38.580 — *Commercial Cards* (OJ C 264/8, 6.11.2009), upheld on appeal in Cases T-111/08 *MasterCard* EU:T:2012:260 and C-382/12 P *MasterCard* EU:C:2014:2201.

³⁸⁷ See the *MasterCard* judgments, *ibid.*

³⁸⁸ European Commission, *Proposal for a Regulation of the European Parliament and of the Council on interchange fees for card-based payment transactions* (COM(2013) 550 final), published 24 July 2013.

³⁸⁹ Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015 on interchange fees for card-based payment transactions (OJ L 123/1, 19.5.2015).

³⁹⁰ Regulation 2015/751, Articles 3 and 4.

activities are a potentially competitive market segment, distinct from payment card schemes; the objective is thus to enable “this part of the value chain to be opened to effective competition.”³⁹¹

*United Kingdom*³⁹²

The payment systems companies in the United Kingdom—for example, BACS and CHAPs—and their infrastructure are owned by the incumbent large banks, which have an element of control over such systems. There are concerns that this structure gives the banks the opportunity to erect barriers to entry, so that challengers and smaller players cannot gain access to payment systems on fair and transparent terms. These issues occur both at the level of direct and indirect access to the payment systems. This has led to calls, in some quarters, for banks to divest their ownership of the payment systems, if deemed necessary.³⁹³

The Payment System Regulator (PSR) was established on 1 April 2014, and became fully operational by April 2015. It has, *inter alia*, certain concurrent competition law functions, in tandem with the CMA. The Government requested that as soon as the PSR is operational, it conduct and publish a full study on the ownership of payment systems and the case for and against taking action to force divestment.³⁹⁴ In a Consultation Paper issued in November 2014,³⁹⁵ the PSR noted that stakeholders had raised initial concerns regarding the ownership, governance and control of payment systems, their degree of openness and the representation of service-users. In order to address these issues, the PSR proposes: to require all payment system operators to ensure that the interests of service-users are appropriately represented in decision-making processes at board level; to establish rules regarding board membership in order to minimise conflicts of interest arising; and to increase levels of transparency with respect to their decision-making processes and activities.³⁹⁶ In relation to the specific point about conflicts of interest, the PSR notes that these arise as a result of the vertical relationships that characterise this sector, “*involving the presence of the same participants at different levels in the supply chain.*”³⁹⁷ The PSR also proposes the introduction of an “Access Package” to govern (and, importantly, to further facilitate) direct access to payment systems. This includes an Access Rule that will require the payment system operators to have objective, risk-based, and publicly disclosed Access Requirements, which permit fair and open access, alongside enhanced reporting requirements that will oblige operators to report to the PSR on compliance with access obligations.³⁹⁸ These proposals are now reflected in the PSR’s formal Policy

³⁹¹ Regulation 2015/751, recital 33.

³⁹² The information in this section was provided by the country in its submission to the 2014 OECD meeting on structural separation.

³⁹³ Parliamentary Commission on Banking Standards, Fifth Report: Changing banking for good, published 19 June 2013, www.publications.parliament.uk/pa/jt201314/jtselect/jtpcbcs/27/2702.htm, at para.53.

³⁹⁴ HM Treasury and the Department for Business, Innovation & Skills, *The Government’s response to the Parliamentary Commission on Banking Standards*, Cm 8661, published July 2013, www.gov.uk/government/uploads/system/uploads/attachment_data/file/211047/gov_response_to_the_parliamentary_commission_on_banking_standards.pdf.

³⁹⁵ Payment Systems Regulator, *Consultation Paper: A new regulatory framework for payment systems in the UK*, PSR CP14/1, published November 2014, www.fca.org.uk/static/documents/psr/psr-cp14-1-cp-a-new-regulatory-framework-for-payment-systems-in-the-uk.pdf.

³⁹⁶ *Ibid*, p.28

³⁹⁷ *Ibid*, p.30.

³⁹⁸ *Ibid*, p.34.

Statement, which sets out its approach to regulation more generally.³⁹⁹ Given its intention to conduct further work on the interchange fee market in the near future, however, the proposals on service-user representation and transparency do not apply to card operators at this point in time.

3.7 Consumer Reporting Agencies

Consumer reporting agencies (also known as credit reference agencies, or CRAs) provide services to banks and other potential creditors regarding the credit-worthiness of potential consumers. Credit ratings are based on information collected across various sources, relating primarily to an individual's borrowing and bill-paying habits. CRAs compile such information into ratings using proprietary algorithms, which can be used by lenders to evaluate a new customer's likelihood to pay. As such, a well-functioning CRA sector is hugely important in terms of securing effective access to consumer credit, particularly for consumers who might be classified as "good" credit risks and who are prepared to shop around.⁴⁰⁰

CRAs demonstrate a degree of vertical integration insofar as, in many jurisdictions, CRAs are owned, or at least controlled, by large banks that also comprise the primary user base for such services. Whilst this arrangement tends to be effective in terms of ensuring that CRAs have on-going access to relevant data, competition problems can arise. For instance, users may have incentives to do business only or primarily with CRAs in which they have an influence; or CRAs may undersupply vital analytical services to users that compete with the parent/associated bank.

In July 2014, Mexico's Federal Economic Competition Authority, COFECE, published an in-depth study into competition conditions in the financial sector in Mexico, including the activities of CRAs.⁴⁰¹ It noted that both of the CRAs active in the Mexican market, *Búro de Crédito* and *Circulo de Crédito*, are owned and controlled by large banks. The report pointed to the possibility of sub-optimal competition within the Mexican market, insofar as the banks concerned are reticent to share the valuable proprietary information collated by their CRAs with competing firms. COFECE thus recommended, *inter alia*, that the financial regulatory framework be altered to require greater sharing of useful consumer information between CRAs, and that CRAs be required to make their databases accessible to facilitate technological innovation in this area, for example through data-mining techniques.⁴⁰²

In Ireland, in direct response to the weaknesses of the existing system exposed during the global financial crisis, a new Central Consumer Register is to be established, under the maintenance and operation of the Central Bank of Ireland.⁴⁰³ The Register will contain information pertaining to both

³⁹⁹ Payment Systems Regulation, *Policy Statement: A new regulatory framework for payment systems in the UK*, PSR PS15/1, published March 2015, www.psr.org.uk/sites/default/files/media/PDF/PSR%20PS15-1%20-%20A%20new%20regulatory%20framework%20for%20payment%20systems%20in%20the%20UK%20-%20Policy%20Statement.pdf.

⁴⁰⁰ See e.g. OECD, *Role of Competition in Financial Consumer Protection. Issues Paper by the Secretariat* at p.11, noting that the sharing of consumer information through CRAs may assist in consumer switching, [https://one.oecd.org/document/DAF/COMP\(2014\)6/en/pdf](https://one.oecd.org/document/DAF/COMP(2014)6/en/pdf).

⁴⁰¹ See COFECE, *Research and Recommendations on Competition Conditions in the Financial Sector and its Markets: Executive Summary* (English language version), published July 2014, www.cofece.mx/images/Estudios/ExecutiveSummary_10022015.pdf.

⁴⁰² *Ibid*, pp.61-65.

⁴⁰³ Credit Reporting Act, 2013.

consumers and businesses, and lenders will be obliged to report to, for inclusion in the Register, credit information and personal information about any loan applications and agreements that involve more than EUR 500. Consumers will be entitled to free access to their own credit record once every twelve months. The cost of the Register will be met by a levy on the lenders, who may also have to pay a fee for access to information on the Register. Operation of the Register is to be outsourced by a Central Bank to private sector operator. Notably, although the incumbent major credit checking agency in Ireland, the Irish Credit Bureau, which is owned by the major Irish banks, applied for the tender, it has been awarded in December 2014 to an Italian operator, CRIF.⁴⁰⁴

Similarly, Latvia has a central Credit Register, managed by the Central Bank of Latvia, which collects, accumulates and stores both positive and negative credit information on borrowers and guarantors. Participants in the Register include credit institutions, companies with close links to credit institutions (including bank subsidiaries and major consumer creditors), credit unions, insurers that provide credit and the state-owned aid and development company. Participation is mandatory under law for these companies. From January 2015, national law has also allowed for private credit information bureaus, with the Central Bank acting as a link for those creditors that opt to participate in both the public and private systems.

3.8 Additional Sectors

In their responses to the call for proposals for new sectors to be considered, the delegates of Members and Colombia identified additional markets where further work may be useful. A brief summary of these sectors is provided in this final section of the Chapter.

The **waste sector** was identified by some delegates as an area where competition problems may arise. Waste operators may be vertically integrated where collection, treatment and disposal/landfill activities are controlled by a single entity. In Ireland, there is little vertical integration in the waste sector, but the Competition Authority raised some competition concerns regarding the model of side-by-side competition between rival operators used throughout the country. It has proposed to the Government to conduct a study of the domestic waste collection market with a view to ascertaining how well competition is working in this area. Colombia noted problems with respect to access to the market for waste collection in Bogotá, where private operators had been excluded when waste management services were returned to the public sector.

Airports were considered as a potential sector for application of the Recommendation in the 2001 report, but were not pursued in subsequent updates. The 2001 report identified three forms of potential vertical structural separation: separation of airlines from provision of airport services; separation of ground handling from other aspect of terminal services; and separation of terminal facilities from other terminal services.⁴⁰⁵ Public-private partnerships are an issue of growing importance in this context worldwide.⁴⁰⁶

⁴⁰⁴ See Irish Independent, “Setback for banks as tender for new credit bureau goes overseas,” published 8 December 2014, www.independent.ie/business/irish/setback-for-banks-as-tender-for-new-credit-bureau-goes-overseas-30806314.html.

⁴⁰⁵ 2001 report, p.3.

⁴⁰⁶ See e.g. Anna Tomová, “PPP Projects and Airports: Experience and State in World Regions,” www.infraday.tuberlin.de/fileadmin/fg280/veranstaltungen/infraday/conference_2009/papers_presentations/paper---tomova.pdf.

An interesting example of horizontal separation is to be found in the decision of the United Kingdom's Competition Commission, from 2009, in which it ordered the mandatory break-up of BAA Ltd, the privatised owner of various airports in the South-East of England and in Scotland.⁴⁰⁷ Determining that the horizontally integrated structure of BAA had an “adverse effect on competition,” the Competition Commission ordered BAA to dispose of two of its three large airports in the London region, plus one airport in Scotland.⁴⁰⁸

Israel noted its experiences with structural separation in the market for the supply of **cement**. Neshor Israel Cement Enterprises, a private company, was declared in December 1988 as the monopoly supplier of cement in the country; the only competition it faces is from imported cement, which provides an inferior alternative to local production. In February 2015, the Israeli Antitrust Authority (IAA) initiated proceedings against Neshor for price discrimination between large and small concrete manufacturers, by providing certain customers with additional benefits within the regulated price. During the investigation, the possibility arose of concluding the case via structural measures—the horizontal divestment of Neshor's cement production plant located in Har-Tuv—rather than purely behavioural measures against price discrimination. The IAA took the view that divestment would provide a superior remedy in this instance, by providing the durable structural remedy to the competition concerns. The conditions for sale have been set by the IAA; if the plant is not divested within a set timeframe Neshor will be subject to strict price regulation in order to remove the identified price discrimination.

⁴⁰⁷ Competition Commission, BAA airports market investigation. A report on the supply of airport services by BAA in the UK, published 19 March 2009.

⁴⁰⁸ Confirmed on final appeal by the Court of Appeal in *BAA Limited v Competition Commission and Ryanair Limited* [2012] EWCA Civ 760.

Chapter 4. Concluding Remarks

This report has provided an overview of select recent experiences in implementing degrees of structural separation in regulated sectors in the Members and certain non-Members.

As the survey of country experiences outlined here suggests, in many Members forms of structural separation are well established, particularly with respect to the conventional utilities sectors considered in Chapter 2. Separation measures similarly have been or are being implemented in many developing economies, again particularly with respect to the energy, telecommunications, and rail sectors. Yet the case for structural separation is not an unequivocal or unyielding one, and, as the Recommendation reflects, there are policy considerations that may lean against structural separation, in whole or in part, in some market circumstances. Indeed, amongst the country experiences surveyed there is even some evidence of a movement towards a degree of partial re-integration, for example, in the Australian water sector, and the United Kingdom rail sector. The copious economic evidence available, moreover, indicates that structural separation can be efficient in many circumstances, but such an outcome is not a given in any circumstance. Thus, particular weight needs to be placed on a comprehensive and nuanced balancing exercise of potential advantages and disadvantages of separation, in line with the requirements of the Recommendation.

Chapter 3 explored the potential application of the Recommendation within more novel sectors, where either liberalisation has been slow to materialise, or which do not necessarily demonstrate the conventional characteristics of a vertically integrated industry as contemplated by the Recommendation. The available evidence suggests that structural separation has potential application as a remedy within this broader context, provided that due weight is given to conventional considerations including investment incentives, effective co-ordination between separated components, and effective regulation to police competition where necessary. In this regard, the report also saw evidence of the use of structural separation as a solution to problems that lie outside the typical realms of competition, such as financial resilience, protecting against climate change, and promoting trade and development. Whilst outside the formal purview of the Recommendation as such, any collateral social or economic benefits that arise additionally from structural separation must surely be considered as an advantage in its favour.

In sum, structural separation remains a potentially beneficial remedy in appropriate market circumstances, with the calculus of costs versus benefits differing from sector to sector and country to country. The evidence collected in this report appears to reaffirm the continued utility of the Recommendation, and to support the maintenance of its content.

Minor textual changes to the Recommendation are suggested to reflect its potentially broader application beyond the conventional contexts of privatisation and the regulated network utilities, although it remains of central relevance within these areas. In particular, the relevance of structural separation to non-network industries has been identified as a potentially important area of applicability. Hence the text of the recommendation could usefully be modified to make this aspect of its applicability more clear. The Recommendation could also usefully include mentioning the role of market studies by competition authorities, which have sometimes been relevant to structural separation outcomes.

More generally, this report concludes, in line with the conclusions of the 2011 report, that the choice of structural versus behavioural measures in a given scenario remains an issue that requires and deserves careful evaluation by policymakers.

Annex. Recommendation of the OECD Council concerning Structural Separation in Regulated Industries

As approved by Council on 26 April 2001 [C(2001)78/FINAL - C/M(2001)9/PROV], amended on 13 December 2011-[C(2011)135 - C(2011)135/CORR1 - C/M(2011)20/PROV] and on 23 February 2016 [C(2016)11 - C/M(2016)3]

THE COUNCIL,

HAVING REGARD to Article 5 b) of the Convention on the Organisation for Economic Co-operation and Development of 14 December 1960;

HAVING REGARD to the agreement reached at the 1997 Meeting of the Council at Ministerial level to reform economic regulations in all sectors to stimulate competition [C/MIN(97)10], and in particular to:

- “i) Separate potentially competitive activities from regulated utility networks, and otherwise restructure as needed to reduce the market power of incumbents;
- ii) Guarantee access to essential network facilities to all market entrants on a transparent and non-discriminatory basis”;

HAVING REGARD to the report Structural Separation in Regulated Industries [DAFFE/CLP(2001)11], the Report by the Competition Committee to the Council on Experiences on the Implementation of the Recommendation concerning Separation in Regulated Industries [C(2006)65], the Report by the Competition Committee on the Implementation of the Recommendation of the Council concerning Structural Separation in Regulated Industries [C(2011)135 and CORR1]; and the Report on the Implementation of the Recommendation of the Council concerning Structural Separation in Regulated Industries [C(2016)11, Annex I];

RECOGNISING that recent experience shows that structural separation has been considered not just with respect to network utilities, but also in a number of other vertically integrated industries where only some activities are subject to competitive constraints;

RECOGNISING that there are differences in the characteristics of industries and countries, differences in the processes of regulatory reform and differences in the recognition of the effectiveness of structural measures, behavioural measures and so on, and that such differences should be taken into account when considering structural issues;

RECOGNISING that regulated firms, often operate in both non-competitive and in competitive complementary activities;

RECOGNISING that the degree of competition which can be sustained in the competitive complementary activities varies, but that when these activities can sustain effective competition it is desirable to facilitate such competition as a tool for controlling costs, promoting innovation, and enhancing the quality of the regulation overall, ultimately to the benefit of final users and consumers;

RECOGNISING that, in this context, the regulated firm has the ability, in the absence of antitrust or regulatory controls, to restrict competition by restricting the quality or other terms at which rival upstream or downstream firms are granted access to the services of the non-competitive activity, restricting the capacity of the non-competitive activity so as to limit the scope for new entry in the complementary activity, or using regulatory and legal processes to delay the provision of access;

RECOGNISING that, depending upon the structure of the industry, a regulated firm which operates in both a non-competitive activity and a competitive complementary activity may also have an incentive to restrict competition in the complementary activity;

RECOGNISING that such restrictions of competition generally harm efficiency and consumers;

RECOGNISING that there are a variety of policies that can be pursued which seek to enhance competition and the quality of regulation by addressing the incentives and/or the ability of the regulated firm to control access. These policies can be broadly divided into those which primarily address the incentives of the regulated firm (such as vertical ownership separation or club or joint ownership), which may be called structural policies, and those which primarily address the ability of the regulated firm to deny access (such as access regulation), which may be called behavioural policies;

CONSIDERING that behavioural policies, unlike structural policies, do not eliminate the incentive of the regulated firm to restrict competition;

CONSIDERING that despite the best efforts of regulators, regulatory controls of a behavioural nature which are intended to control the ability of an integrated regulated firm to restrict competition may result in less competition than would be the case if the regulated firm did not have the incentive to restrict competition;

CONSIDERING that, as a result, the efficiency and effectiveness of regulation of the non-competitive activity, the available capacity for providing access, the number of access agreements and the ease with which they are reached and the overall level of competition in the competitive activity may be higher under structural policies;

CONSIDERING that, under such circumstances, it is all the more necessary that, to prevent and tackle restrictions of competition, competition authorities have appropriate tools, in particular the capacity to take adequate interim measures;

CONSIDERING that certain forms of partial separation of a regulated firm (such as accounting separation or functional separation) may not eliminate the incentive of the regulated firm to restrict competition and therefore may be less effective in general at facilitating competition than structural policies, although they may play a useful and important role in supporting certain policies such as access regulation;

RECOGNISING that, in some circumstances, allowing a regulated firm operating in a non-competitive activity to compete in a complementary competitive activity allows the regulated firm to attain significant economic efficiencies or to provide a given level of universal services or service reliability;

RECOGNISING that structural decisions in regulated industries often require sensitive, complex, and high-profile trade-offs, requiring independence from the regulated industry and requiring expertise, experience, and transparency in assessing competitive effects and comparing these with any economic efficiencies of integration; and

RECOGNISING that the boundaries between activities which are potentially competitive and activities which may be non-competitive are subject to change and that it would be costly and inefficient to continuously adjust the degree of vertical separation;

On the proposal of the Competition Committee:

I. AGREES that, for the purpose of the present Recommendation, the following definitions are used:

- **Firm** refers to a legal entity or a group of legal entities where the degree of inter-linkages (such as shareholding) among the entities in the group is sufficient for these entities to be considered as a single entity for the purposes of national laws controlling economic concentrations;
- **Regulated firm** refers to a firm, whether privately or publicly owned, which is subject to economic regulation intended to constrain the exercise of market power by that firm;
- **Non-competitive activity** is an economic market, defined according to generally accepted competition principles, in which, as a result of regulation or underlying properties of demand and supply in the market, one firm in the market has substantial and enduring market power;
- **Competitive activity** is an economic market, defined according to generally accepted competition principles, in which the interaction among actual and potential suppliers would act to effectively limit the market power of any one supplier;
- **Complementary** refers to products (and services) that enhance each other. Products that are complementary to the regulated firm's non-competitive activity therefore include (1) products bought by the firm from (upstream) suppliers, (2) products sold by the firm to (downstream) customers, and (3) other products used in conjunction with the firm's non-competitive product, and where competitors' success in providing such products depends on their or their customers' ability to obtain access to the non-competitive product.

II. RECOMMENDS that, when faced with a situation in which a regulated firm is or may in the future be operating simultaneously in a non-competitive activity and a potentially competitive complementary activity, Members and non-Members having adhered to the Recommendation (hereafter the “Adherents”) carefully balance the benefits and costs of structural measures against the benefits and costs of behavioural measures. To this effect:

- The benefits and costs to be balanced include the effects on competition, effects on the quality and cost of regulation, effects on corporate incentives to invest, the transition costs of structural modifications and the economic and public benefits of vertical integration, based on the economic characteristics of the industry in the country under review.
- The benefits and costs to be balanced should be those recognised by the relevant agency(ies) including the competition authority, based on principles defined by the Adherent. This balancing should occur especially in the context of privatisation, liberalisation, regulatory

reform and, on some occasions, may also be relevant to market studies conducted by competition authorities.

III. INVITES the Secretary-General and Adherents to disseminate this Recommendation.

IV. INVITES non-Adherents to take account of and adhere to this Recommendation.

V. INSTRUCTS the Competition Committee to:

1. Serve periodically, or at the request of the Adherents, as a forum for consultations on matters related to the Recommendation; and
2. Monitor the implementation of this Recommendation and report thereon to the Council no later than five years following its revision and thereafter as appropriate.

Non-OECD Adherents^{*} : Romania (Adherence date: 12 December 2014).

* Adherence date is the exchange of letter date (most recent date if two dates available).

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www.oecd.org/daf/competition

