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COMMERCE COMMISSION

Commerce Commission

Decision No. 518

Determination pursuant to the Commerce Act 1986 in the matter of an application for clearance of a business acquisition involving:

PACIFIC RADIOLOGY LIMITED

and

WAKEFIELD RADIOLOGY LIMITED

The Commission: Paula Rebstock
Peter JM Taylor
Denese Bates QC

Summary of Application: The acquisition by Pacific Radiology Limited of the radiology services business and assets of Wakefield Radiology Limited.

Determination: Pursuant to section 66(3)(a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition.

Date of Determination: 26 February 2004

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EXECUTIVE SUMMARY

The Proposal

1. A notice pursuant to s 66(1) of the Commerce Act was received on 23 January 2004. The notice sought clearance for the acquisition by Pacific Radiology Limited of the radiology services business and assets of Wakefield Radiology Limited.

Market Definition

2. The Commission concludes that, for the purposes of the present application, the relevant markets are:

   - The provision of private low tech radiology services in each of the following separate geographic regions within the greater Wellington area:
     - Wellington city and suburbs;
     - Wellington North (Johnsonville, Newlands, Tawa, Crofton Downs);
     - Hutt Valley;
     - Porirua;
     - Kapiti Coast; and
     - Masterton (the low tech markets).
   - The provision of the following high tech private radiology services for the greater Wellington area:
     - MRI scans (the MRI market);
     - CT scans (the CT market);
     - Nuclear medicine (the nuclear market); and
     - Interventional radiology, including angiography (the interventional market).

Counterfactual

3. The Commission considers the appropriate counterfactual to be that of Pacific and Wakefield providing low tech services in the areas in which they operate presently, as well as competing for business in the markets for CT, interventional radiology, and MRI. In addition, Wakefield would also continue with the provision of services in the nuclear medicine market as per the status quo.

Competition Analysis

Existing Competition

Low Tech Markets

4. The Commission is satisfied that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition, in the markets for low tech services, as no aggregation would occur in any of the regional low tech markets.

CT Market

5. As Pacific and Wakefield are presently the only providers of CT services in the greater Wellington region, the acquisition would give rise to 100% aggregation in the CT market, which is outside the Commission's safe harbours.

Interventional Market

6. As Pacific and Wakefield are presently the only providers of interventional radiology services in the greater Wellington region, the acquisition would give rise to 100% aggregation in the interventional market, which is outside the Commission's safe harbours.

Nuclear Market

7. As Pacific does not presently provide nuclear medicine services and is unlikely to provide nuclear medicine services in the foreseeable future, the Commission considers that the acquisition is unlikely to give rise to a substantial lessening of competition in the nuclear market.

MRI Market

8. The proposed acquisition would not give rise to any aggregation in the MRI market. However, the Commission considers it could remove a potential entrant and important constraint from the market, given Pacific's probable entry to this market absent the acquisition.

Potential Competition

The CT, Interventional and MRI Markets

9. The Commission has considered the various factors relevant to the assessment of the entry barriers in the CT, interventional and MRI markets, specifically:
   - the availability of radiologists;
   - the ability to establish relationships with specialists; and
   - capital investment.
10. There is a general shortage of radiologists, and poaching radiologists from other practices may be difficult due to the existence of restraint of trade clauses. However, the potential exists for entry in Wellington through the acquisition and expansion of an existing low tech practice that already has radiologists.
11. The Commission considers that any entry into these markets would likely occur through the acquisition and expansion of a low tech practice. An existing practice is likely to have an established referral base from which the acquirer could operate. As such, the need to secure a referral base is unlikely to be a barrier, if entry is effected in this way.
12. The Commission notes the possible sunk costs in terms of barriers to exit in purchasing expensive high tech radiology equipment such as MRI and CT scanners. However, it considers that sufficient demand exists for an increase in capacity in the high tech markets in Wellington. In addition, it appears that demand for high tech imaging is increasing, such that a viable business case could be made in order to secure capital. As such, the Commission considers that access to capital poses no more than a moderate barrier to entry.

13. The Commission concludes that the aggregation of all the barriers to entry in the CT, interventional and MRI markets will result in moderate to high barriers to entry for entry through acquisition and expansion, but high for de novo entrants.

14. Despite these moderate to high barriers, the Commission considers that sufficient demand exists in the Wellington markets for high tech imaging to support and sustain new entry. It considers that de novo entry is unlikely, but that Sonic and Aus-Care are likely entrants through the acquisition and expansion of an existing low tech practice into the markets for MRI, CT and interventional radiology, in the face of an attempt by the merged entity to raise prices.

Countervailing Power

15. The Commission considers that cumulatively, funding providers such as DHBs, IPAs, ACC, and Southern Cross would have significant countervailing power in their ability to exert downward pressure on the merged entity's pricing, but that taken on its own the cumulative countervailing power of funders may be insufficient to constrain the merged entity.

Overall Conclusion

16. On balance, the Commission considers that the likelihood of new entry in the face of an attempt by the merged entity to raise prices, coupled with the countervailing power of the funding agencies will be sufficient to constrain the merged entity. Therefore, the Commission is of the view that the proposed merger is unlikely to give rise to a substantial lessening of competition in the private low tech and high tech radiology markets.

17. Accordingly, pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Pacific of the radiology services business and assets of Wakefield.

THE PROPOSAL

1. A notice pursuant to s 66(1) of the Commerce Act was received on 23 January 2004. The notice sought clearance for the acquisition by Pacific Radiology Limited of the radiology services business and assets of Wakefield Radiology Limited.

PROCEDURE

2. Section 66(3) of the Act requires the Commission either to clear or to decline to clear a notice given under s 66(1) within 10 working days, unless the Commission and the person who gave notice agree to a longer period. Accordingly, two extensions of time were sought and agreed to by the Applicant. A decision on the Application was required by 5 March 2004.

3. In its application, Pacific sought confidentiality for certain aspects of the Application involving commercially sensitive and valuable information. A confidentiality order was made in respect of the information for up to 20 working days following the Commission's determination notice. When that order expires, the provisions of the Official Information Act 1982 will apply.

4. The Commission's approach to analysing this proposed acquisition is based on principles set out in the *Commission's Mergers and Acquisitions Guidelines.*[1]

STATUTORY FRAMEWORK

5. Under s 66 of the Commerce Act (the Act), the Commission may grant clearances for acquisitions where it is satisfied that the proposed acquisition would not have, or would not be likely to have, the effect of substantially lessening competition in a market. The standard of proof that the Commission must apply in making its determination is the civil standard of the balance of probabilities.[2]

6. The Commission considers that it is necessary to identify a real lessening of competition that is not minimal.[3] Competition must be lessened in a considerable and sustainable way. For the purposes of its analysis, the Commission is of the view that a lessening of competition and creation, enhancement or facilitation of the exercise of market power may be taken as being equivalent.

7. When the impact of market power is expected to be predominantly upon price, for the lessening, or likely lessening, of competition to be regarded as substantial, the anticipated price increase relative to what would otherwise have occurred in the market has to be both material, and able to be sustained for a period of at least two years.

8. Similarly, when the impact of market power is felt in terms of the non-price dimensions of competition such as reduced service, quality or innovation, for there to be a substantial lessening, or likely substantial lessening, of competition, these also have to be both material and sustainable for at least two years.

ANALYTICAL FRAMEWORK

9. The Commission applies a consistent analytical framework to all its clearance decisions. The first step the Commission takes is to determine the relevant market or markets. As

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[1] Commerce Commission, *Mergers and Acquisition Guidelines,* January 2004.
[2] Foodstuffs (Wellington) Cooperative – Society Limited v Commerce Commission (1992) 4 TCLR 713, p 721-722.
[3] See Fisher & Paykel Limited v Commerce Commission [1990] 2 NZLR 731, 758 and also Port Nelson Limited v Commerce Commission [1996] 3 NZLR 554.

acquisitions considered under s 66 are prospective, the Commission uses a forward-looking type of analysis to assess whether a lessening of competition is likely in the defined market(s). Hence, an important subsequent step is to establish the appropriate hypothetical future with and without scenarios, defined as the situations expected:

- with the acquisition in question (the factual); and
- in the absence of the acquisition (the counterfactual).

10. The impact of the acquisition on competition is then viewed as the prospective difference in the extent of competition in the market between those two scenarios. The Commission analyses the extent of competition in each relevant market for both the factual and counterfactual scenarios, in terms of:
    - existing competition;
    - potential competition; and
    - other competition factors, such as the countervailing market power of buyers or suppliers.

THE PARTIES

Pacific Radiology Limited

11. Pacific Radiology Limited is 100% owned by Pacific Radiology Group Limited. The shares in Pacific Radiology Group Limited are held, either individually or by the trustees of family trusts or holding companies, set up by radiologists employed by companies in the Pacific Radiology group (Shareholder Radiologists). There are 20 such radiologists: 14 in Christchurch, three in Nelson and three in Wellington. None of those radiologists is beneficially entitled to 10% or more of the shares in any other radiology company.
12. Pacific Radiology Group Limited has four subsidiaries being Christchurch Radiology Group Limited, Nelson Radiology Limited, Hutt Radiology Clinic Limited (now is a non-trading company) and Capital Radiology Limited (a non-trading shelf company). Christchurch Radiology Group Limited owns 68% of the shares in Canterbury Breast Care Limited which in turn owns 50% of the shares in Breast Screen South Limited.

13. The locations of Pacific Radiology's radiology clinics are as follows:

Table 1
Location of Radiology Clinics in the Pacific Radiology Group

City	Company	Location
Christchurch	Christchurch Radiology Group Limited	❑ St Georges Radiology – 137 Leinster Road ❑ Southern Cross Radiology – 129 Bealey Avenue ❑ After Hours Radiology – Corner Bealey Avenue and Colombo Street ❑ Cashmere Radiology – Princess Margaret Hospital, Cashmere Road ❑ Canterbury Breastcare – St Georges Medical Centre, 249 Papanui Road
Nelson	Nelson Radiology Limited	❑ 211 Bridge Street
Hutt Valley	Pacific Radiology Limited	❑ 665 High St. Lower Hutt (opposite Hutt Hospital) ❑ Queen Street, Upper Hutt
South Island	Breastscreen South Limited	❑ Mobile bus service

14. Of particular relevance to this application is Pacific's radiology practice in the Hutt Valley.

Wakefield Radiology Limited

15. Wakefield is a Wellington-based radiology practice privately owned by the Fitzjohn Family Trust (88%) and Braithwaite Holdings Limited. Wakefield offers a comprehensive range of diagnostic imaging services and is the largest provider of these services in the Wellington region. Wakefield has clinics in the Wellington region only, in the following locations:

Table 2: Location of Wakefield Radiology Clinics

Area	Location
Newtown	❑ Wakefield Hospital (main clinic) ❑ Southern Cross ❑ A&E Clinic at Basin Reserve ❑ Wellington Zoo (animals only)
Central	❑ Lambton Quay
Johnsonville	❑ Moorefield Rd
Wairarapa	❑ Masterton

Specific Radiology Procedures Offered by the Parties

16. Tables 3 and 4 set out the specific radiology procedures offered by Pacific and Wakefield. The Applicant submitted that the procedures could be split into two distinct groups: routine and non-routine. Discussion of this terminology and distinction is included in the section on industry background below.

Table 3: Routine Radiology Procedures Offered Variously by Pacific and Wakefield in the Wellington Region.

Procedure	Description of procedure	Pacific	Wakefield
Routine			
General radiology - plain x-ray film	Use of x-ray to penetrate the body and produce "shadows" of bones on photographic film.	Yes	Yes
Screening procedures	Demonstration of structures in the body using contrast agents with x-ray techniques. (These include barium enemas, venography, barium meals and diaphragm screenings.)	Yes	Yes
Mammography	A simple x-ray examination of the breast.	Yes	Yes
DEXA	A bone density test. A dual-energy beam of x-ray passes through the body and is measured. The technology is called Dual-Energy X-ray Absorpitometry or DEXA.	Yes	Yes
Venography	Contrast agents are injected into a vein and used in conjunction with x-ray techniques.	Yes	Yes
Ultrasound	Ultrasound imaging is a method of producing images of the body through the use of high frequency soundwaves. Soundwaves are recorded and displayed as real time visual images.	Yes	Yes

Table 4: Non-routine Radiology Procedures Offered Variously by Pacific and Wakefield in the Wellington Region.

Non-routine			
Computer assisted tomography (CT) scans	A system which produces x-ray pictures as transverse (crosswise) slices of the body. This technology allows radiologists to see details of the brain, spine, liver or other internal organs not visible on regular x-ray films.	Yes	Yes
Magnetic Resonance Imaging (MRI scans)	Magnetic Resonance Imaging, or MRI, is the latest and most advanced method of diagnostic imaging. It combines a powerful magnet, radio waves and a sophisticated computer to create highly detailed anatomical images of the body.	No	Yes
Nuclear medicine	Scintigraphy or 'nuclear medicine' provides the ability for the reliable, painless and efficient examination of the physiological functions in various parts of the body. It is most widely used for examinations of the bones, thyroid and kidneys. This is achieved by using medical radioisotopes to image various parts of the body. These images are collected by a device called a gamma camera and turned into scans.	No	Yes
Interventional radiology (includes musculoskeletal and breast biopsy services)	Using modern imaging techniques, radiologists are able to perform a range of procedures under local anaesthesia, without the need for surgical incisions or general anaesthesia. X-ray, Fluoroscopy, Ultrasound or CT Scanning may be utilised to guide interventional procedures such as needle biopsy and catheter placement.	Yes	Yes
Angiography	Angiography is a specialized area of x-ray usage where the images of blood vessels that take blood away from the heart (the arteries) or major veins in the abdomen are captured on to an x-ray camera.	No	Yes

Other Relevant Parties

Wellington Radiology Limited (WRL)

17. WRL is a privately owned radiology practice based at Bowen Hospital, Wellington, with a branch in Porirua. WRL has two radiologists and provides only low tech diagnostic imaging services. [ ].

Kapiti Radiology Limited (KRL)

18. KRL is a privately owned radiology practice based in Paraparaumu. KRL has one radiologist and provides only low tech services.

Sonic Healthcare Limited (Sonic)

19. Sonic is an Australian based specialist medical diagnostic company operating in Australia, Hong Kong, the UK and New Zealand. Sonic is listed on the Australian Stock Exchange, on which it is considered to be one of the "Top 100" companies. In New Zealand, Sonic runs 5 different medical businesses: Diagnostic Medlab Limited; Medlab Central (Palmerston North); Medlab South (Christchurch); Valley Diagnostic Laboratories (Lower Hutt); and New Zealand Radiology Group. New Zealand Radiology Group comprises:

    - Mercy Radiology (Auckland);
    - Palmerston North X-Ray, also known as Broadway Radiology (Palmerston North); and
    - Canterbury Medical Imaging (Christchurch).

20. Each of Sonic's New Zealand radiology practices performs both low tech and high tech radiology procedures. In New Zealand, Sonic acquired its radiology practices as part of its acquisition of pathology and medical laboratories. Sonic also owns radiology practices in Australia.

Aus-Care Holdings Pty Limited (Aus-Care)

21. Aus-Care is an Australian diagnostic and healthcare provision company that owns radiology practices in Australia and New Zealand. In July 2003, Aus-Care opened Auckland X-Ray Services on Dominion Road, Auckland, offering low tech diagnostic imaging as well as CT scanning.

Royal Australia and New Zealand College of Radiology (RANZCR)

22. The New Zealand branch of the RANZCR was established in the 1940s. The RANZCR sets policy and guidelines for professional practice, as well as facilitating the training and qualification of radiologists in New Zealand. It also assists the New Zealand Medical Council with approving and assessing overseas-trained radiologists who wish to work in New Zealand.

23. The RANZCR has developed and owns the Relative Value Unit (RVU) costing model, which is a cost-based pricing model calculated and applied on a national basis[4]. ACC and Kowhai IPA (discussed below) both use this pricing model to set their prices with providers.

[4] The RVU is calculated independently by Deloitte Touche Tohmatsu.

International Accreditation New Zealand (IANZ)

24. IANZ is the accreditation arm of the Testing Laboratory Registration Council. The Council was established by an Act of Parliament in 1972 to provide laboratory accreditation. This has been extended to include accreditation of radiology services and inspection bodies.

Accident Compensation Corporation (ACC)

25. The ACC is a Crown agency responsible for the administration of the statutory insurance scheme for accident-related injuries and disabilities. The scheme was originally created by legislation in 1974. ACC's objective is to reduce the social, economic and physical impact of personal injury.

26. The ACC purchases primary health care, emergency transport, community and referred services and ancillary services for people with injuries from accidents, and non-urgent ('elective') medical treatment for those who require follow-up procedures. These are purchased directly from hospital and health services and private providers.

27. The Ministry of Health purchases acute care, radiology, laboratory and other services for injured people on behalf of the ACC. The ACC annually pays a bulk fund to the Crown to cover the cost of the acute services provided by public hospitals. For the 2003/2004 June year, the appropriated sum is $183.229 million GST incl), although this amount is to cover all public health acute services purchased by ACC nationally.

28. The ACC contracts with private radiology providers for the provision of both low tech and high tech procedures. In order to contract with ACC in respect of high tech services, a provider must first be IANZ accredited. ACC has set its payment rates for radiology services according the previously mentioned RANZCR cost-based model. The ACC precludes radiology providers with which it has contracted from charging co-payments (amounts over and above the funded portion of the procedure) in respect of ACC funded high tech procedures.

Southern Cross Healthcare (Southern Cross)

29. Southern Cross is a "not for profit" health care organisation incorporated as a Friendly Society under the Friendly Society and Credit Unions Act 1982. For the purposes of this application, the relevant activity of Southern Cross is the provision of indemnity health insurance.

DHBs

30. In 2000 the Government initiated changes that amalgamated the purchase and provision of health services and decentralised decision-making to community-focused Crown Entities known as District Health Boards (DHBs).

31. A total of 21 DHBs now manage the provision of public health and disability services for their particular regions. To receive government funds, DHBs are required to enter into funding agreements with the Ministry of Health. These agreements allow the Ministry to specify reporting requirements and a minimum level of services required to be delivered within the funding provided.

32. DHBs directly provide some services but also enter into agreements with other providers for the delivery of some health and disability services. Generally DHBs directly provide secondary and tertiary levels of healthcare through the administration of public hospitals, while the majority of primary healthcare is delivered by other providers.

33. In Wellington there are two DHBs: Capital and Coast DHB which operates Wellington Hospital and Kenepuru Hospital, and Hutt DHB which operates Hutt Hospital.

34. DHBs commonly enter into agreements with General Practitioners, Maori and Pacific Island groups, pharmacies, midwives, laboratories, dental services, radiology services and mental health providers. These other providers usually have some freedom in how they deliver services within the constraints of any funding agreement with a DHB, statutory restrictions and other restrictions imposed by the Ministry of Health. Of relevance to this Application is the DHB funding of Independent Practice Associations (IPAs).

Independent Practitioner Associations (IPAs)

35. IPAs were introduced in the early 1990s as part of the Government's Primary Care Organisation initiative. An IPA is a group of medical practitioners who contract with DHBs to provide community based healthcare services. Typically, an IPA is organised over a number of practices and has a single contract for the collective management of resources, clinical activity and quality.

36. Through the IPA scheme, DHBs aim to counter the inability of public hospitals to deliver on volumes of elective procedures, thereby reducing hospital waiting lists. IPAs administer funding received from DHBs in order to provide access to community based primary health care and specialist assessments.

Wellington Independent Practice Association (WIPA)

37. WIPA: The Greater Wellington Health Trust, contracts with the Capital & Coast District Health Board and other health funders to provide a range of community based primary care services to the residents of its district. The beneficiaries of the Trust are the people of Greater Wellington. The Trust in turn contracts WIPA Management Ltd to provide management, administrative, and health services.

38. In respect of WIPA's community radiology programme, the eligibility criteria for people who live in the Capital & Coast Health DHB locality (northern boundary is the north side of PekaPeka Road) are:

    - must have eligibility for publicly-funded health and disability services in New Zealand;
    - patient condition must fit within National Community Radiology Guidelines;
    - GP has discussed patient clinical conditions with specialist who recommends procedure; and
    - specialists can refer to the scheme if the patient has a community services or high user card.

39. The scheme does not cover maternity related claims, services for ACC related injuries, screening, echo cardiogram or colonoscopy.

40. WIPA contracts with private radiology providers for the provision of low tech and high tech services in the Wellington region. Only specialists may refer patients for high tech procedures. WIPA contractually prohibits radiologists from which it purchases services from charging patients with Community Services or High User cards a part or co-payment.

41. WIPA's annual budget for the provision of radiology services is around [ ].

Kowhai IPA (Kowhai)

42. Kowhai is the Hutt DHB's equivalent of WIPA and provides a range of community based primary care services to the residents of the Hutt Valley region. Kowhai's annual budget for the provision of radiology services is [ ].

PREVIOUS INVESTIGATIONS

Radiology

43. Previously, the Commission considered radiology markets in Decision 347[5] which involved the forming of a 50/50 joint venture company by Fulford Radiology Limited, a private Radiology company and Taranaki Healthcare Limited (at that time, the Crown owned radiology service provider in the Taranaki Base Hospital). The Commission gave clearance to the proposed merger on the basis of:

- the countervailing power of purchasers and low barriers to entry in respect of the market for low tech radiology services; and
- the fact that no aggregation occurred in respect of high tech radiology services.

Private Hospitals

44. In Decisions 442[6] and 492[7], the Commission considered two proposed acquisitions concerning private hospitals. Of relevance to this Application, is the distinction between the provision of public and private health services.

INDUSTRY BACKGROUND

Radiology

45. Radiology services incorporate a variety of procedures, which can be provided in a specialist unit at a hospital, a medical clinic, or in some instances, a mobile clinic.

46. All radiology procedures currently available in New Zealand have been classified by ACC as either low tech or high tech services. Following consultation with ACC, private insurers, DHBs, radiologists, and other medical specialists, there appears to be acceptance and understanding of the nomenclature adopted by ACC. Hence, the Commission will adhere to these definitions for the purposes of the present application.[8]

47. Low tech services include:

- Plain film x-rays;
- General screening;
- Mammography;
- DEXA scanning;
- Venography; and

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[5] Commerce Commission, Decision 347, *Fulford Radiology Services Limited and Taranaki Healthcare Limited and Fulford Radiology Limited*, 19 March 1999

[6] Commerce Commission, Decision 449*, The Ascot Hospital and Clinics Limited and Mercy Hospital Auckland Limited,* 14 December 2001.

[7] Commerce Commission, Decision 492, *Wakefield Hospital Limited and Mercy Hospital Limited*, 19 February 2003.

[8] In the *Fulford* decision, the Commission adopted the terms 'routine' and 'non-routine', which loosely correspond to ACC's 'low tech' and 'high tech', respectively.

- Ultrasound.

48. High tech services include:

    - MRI scans;
    - CT scans;
    - Nuclear medicine (scintigraphy); and
    - Interventional radiology, which may include procedures such as abscess drainage and angiography.

    See Tables 2 and 3 above for more description of the individual procedures.

49. Radiology services are carried out in New Zealand by both DHBs and private providers. In most major cities, there is usually at least one public and one or more private radiology providers, while smaller towns are usually served by one operator (normally the public hospital).

50. In general, public hospitals tend to offer a full range of radiology services, although some hospitals, such as the Hutt Hospital, contract out to private providers the provision of procedures such as MRI scans.

51. Private Radiology practices vary in size, depending on the procedures offered. For instance, KRL offers only low tech procedures, whereas Wakefield offers both low and high tech procedures. Parties interviewed by Commission staff estimated that a low tech practice could be established for under $500,000, whereas a high tech practice could cost several million dollars to establish, given the cost of CT scanners is around $1.3 million and MRI machines is around $3 million.

52. In addition to equipment, a person wishing to establish a radiology practice would require the services of a qualified radiologist. The Commission is advised by radiologists in New Zealand that there is presently a worldwide shortage of radiologists.

53. As radiological technology evolves and diagnostic imaging capabilities increase, the demand for radiology services is increasing. In addition, radiologists are of the view that some specialists are tending to request more radiology tests than previously in order to mitigate negligence liability, a practice referred to as "defensive medicine".

54. In New Zealand, there appears to be a trend towards larger radiology practices offering a full range of both low and high tech procedures. Pacific and Sonic are examples of large umbrella groups comprising a number of full-service practices. However, there remain a large number of smaller, low tech practices.

55. The delivery of radiology services is characterised by a complex set of inter-relationships involving consumers, referrers, providers and purchasers. A diagram showing these inter-relationships is attached as Appendix 1.

56. Public radiology services are provided free of charge to the patient. Private services may be part funded by ACC, an IPA, or a medical health insurer. In some cases, private providers may require the patient to pay a part or co-payment so that they may recover the full cost of providing the service. Private health insurers cover the minimum of either some proportion of the total cost (the remainder being met by the individual), or a preset capped amount (beyond which the individual must pay out-of-pocket). Private individuals not covered by either ACC or health insurance bear the full cost of private treatment themselves.

57. In some cases, the full cost of a radiology procedure may be in excess of $1000, as is the case for MRI scans and bone scans.

58. Public hospitals provide health and disability services for both 'acute' patients and 'elective' patients. Essentially, acute patients are those who require immediate medical attention as a result of an accident or emergency. Patients who undergo elective procedures in the public system typically attend outpatient or specialist clinics at a public hospital.[9] In general, funding for radiology services performed in a public hospital is provided by the DHB.

59. As mentioned above, the ACC provides bulk funding to the Crown for the acute services that it requires, which is then disbursed through the Ministry of Health to DHBs.

60. The private system caters for those patients who would not otherwise receive treatment in the public system, or who prefer private treatment on the basis of timeliness or other reasons. The majority of private radiology procedures performed are elective or non-urgent. A small number of patients choose to attend private acute clinics, such as the Wellington Accident and Urgent Medical Centre in which Wakefield operates a 24 hour radiology clinic, although this is less common. Notwithstanding this, there is very little competition between public and private radiology service providers in respect of acute procedures.

61. ACC elective surgery (including surgery incorporating a radiology component) is contracted for by the ACC. Ambulatory or outpatients who require radiology services must visit a GP or specialist before they can be referred to a radiology clinic. In general, where a patient has medical health insurance or is prepared to self-fund their radiology, they will be referred to a private radiology practice.

62. Where the radiology procedure is not acute, or where the patient has no medical insurance or is unable to self-fund their radiology procedures, they may be funded through an IPA scheme.

MARKET DEFINITION

63. The Act defines a market as:

> . . . a market in New Zealand for goods or services as well as other goods or services that, as a matter of fact and commercial common sense, are substitutable for them.

64. For competition purposes, a market is defined to include all those suppliers, and all those buyers, between whom there is close competition, and to exclude all other suppliers and buyers. The focus is upon those goods or services that are close substitutes in the eyes of buyers, and upon those suppliers who produce, or could easily switch to produce, those goods or services. Within that broad approach, the Commission defines relevant markets in a way that best assists the analysis of the competitive impact of the

[9] In some cases elective radiology services such as nuclear radiology are undertaken by the public hospital when the local private provider does not provide these services and there is low demand. For example, nuclear radiology is performed by Palmerston North Hospital because demand is low and Broadway Radiology, the local private provider does not offer this service.

acquisition under consideration, bearing in mind the need for a commonsense, pragmatic approach to market definition.[10]

65. For the purpose of competition analysis, the Commission's approach is to assume the relevant market is the smallest space within which a hypothetical, profit-maximising, sole supplier of a good or service, not constrained by the threat of entry, would be able to impose at least a small yet significant and non-transitory increase in price, assuming all other terms of sale remain constant (the SSNIP test). The smallest space in which such market power may be exercised is defined in terms of the five dimensions of a market discussed below. The Commission generally considers a SSNIP to involve a five to ten percent increase in price that is sustained for a period of one year.

Product Dimension

66. Initially, markets are defined for each product supplied by two or more of the parties to an acquisition. For each initial market so defined, the Commission considers whether the imposition of a SSNIP would be likely to be profitable for the hypothetical monopolist. If it were, then all of the relevant substitutes must be incorporated in the market.

67. The greater the extent to which one good or service is substitutable for another, on either the demand-side or supply-side, the greater the likelihood that they are bought and supplied in the same market. The degree of demand-side substitutability is influenced by the extent of product differentiation.

68. Close substitute products on the demand-side are those between which at least a significant proportion of buyers would switch when given an incentive to do so by a small change in their relative prices.

69. Close substitute products on the supply-side are those between which suppliers can easily shift production, using largely unchanged production facilities and little or no additional investment in sunk costs, when they are given a profit incentive to do so by a small change in their relative prices

70. The Applicant submitted that acute and elective radiology procedures should be included within the same product market, as should private and publicly funded radiology services, and separate product markets should be defined for:

- routine (low tech) radiology services and facilities; and
- non-routine (high tech) radiology services and facilities – or separate markets for each of the specific high tech procedures.

71. The Commission has considered the demand-side and supply-side factors of the activities affected by the proposed acquisition in framing its market definitions, and these issues are reviewed below.

Public vs. Private Radiology

72. In New Zealand, healthcare is financed by a mix of public and private funding, with the majority being funded from public sources.

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[10] Australian Trade Practices Tribunal, *Re Queensland Co-operative Milling Association*, above note 10; *Telecom Corporation of NZ Ltd v Commerce Commission & Ors* (1991) 3 NZBLC 102,340 [reversed on other grounds].

73. In Decision 347 the Commission considered public and private radiology procedures to be in the same market. However, at that time there appeared to be no restrictions, in principal, on Taranaki Healthcare Limited's (public provider) ability to perform private healthcare work and to compete for ACC work, subject to capacity and funding constraints. The only stipulation of the public funding authority, at that time the HFA, was that publicly funded procedures receive first priority.

74. In Decision 449, the Commission considered again the public and private health sectors, and defined separate markets for private and publicly funded elective surgical work. The Commission considered that both private and public hospitals operate in the publicly funded market, whereas only private hospitals operate in the privately funded market.

75. More recently and in relation to the Wellington region, the Commission further considered public and private health care markets to be discrete in its decision on Wakefield Hospital's Application for Clearance to acquire Bowen Hospital.

76. The Applicant contends that the rationale for the distinction between publicly and privately funded elective surgical work does not apply in relation to the provision of radiology services and facilities for the following reasons:

- patients are referred to private and public radiology clinics by the same set of referrers;
- the radiology services provided at private radiology clinics are the same as those provided at public hospitals;
- the same radiologists provide the services regardless of whether they are funded publicly or privately; and
- private and public providers compete for both private and public funding from the same sources.

77. Private radiologists receive payment for their patients from several sources: the patient themselves, a medical insurer (indirectly by way of patient reimbursement), ACC (although the public system carries out the majority of acute ACC procedures), or through a publicly funded IPA scheme. Public radiology providers receive all their funding through DHBs. Hence, public radiology providers do not compete with private radiologists for any funding.

78. In its investigations, all parties interviewed by Commission staff, with the exception of Pacific and Wakefield, considered that it is valid to distinguish between the public and private provision of radiology services. Marion Thomas, Portfolio Manager – Planning and Funding, Hutt DHB, advised the Commission that although the Hutt DHB has the technical capacity to perform private procedures (including elective ACC work), it was precluded from doing so by a shortage of funding.

79. Another relevant consideration is that DHB's are required by the Government to reduce the waiting times for public procedures. The Government's current strategy, 'Reduced Waiting Times for Public Hospital Elective Service', sets out the following objectives:

- all patients with a level of need, which can be met within the resources available, are provided with surgery within six months of assessment;
- delivery of a level of publicly funded service which is sufficient to ensure access to elective surgery before patients reach a state of unreasonable distress, ill-health and/or incapacity;

- national equity of access to electives so that patients have similar access to elective services, regardless of where they live; and
- a maximum waiting time of six months for first specialist assessment.

80. One way in which DHBs are attempting to minimise waiting times and ease the pressure on their systems is by funding community based health services for patients who hold Community Services or High Health User Cards through IPA schemes. In Wellington those schemes are WIPA, which is funded by the Capital and Coast DHB, and Kowhai, which is funded by the Hutt DHB. The procedures funded by these schemes are typically elective. In essence, the schemes are the public sector purchasing healthcare services from the private sector.

81. Although the distinction between the private and public markets is blurred, on the supply side there is generally a distinction between public hospitals undertaking public work and private providers undertaking private work. While there is potential for private work to be carried out in the public system, funding and government policy actively discourage this.

82. In 2000, the Government introduced an initiative "Reduced Waiting Times for Public Hospital Elective Services" in an attempt to ensure that patients in the public sector wait no longer than 6 months for their elective procedures. As such, public providers are obliged to reduce their waiting lists, rather than seek private business.

83. On the demand side, neither private nor public provision is costless for the patient. Public radiology is provided free of charge, but typically long waiting lists for procedures mean patients incur an opportunity cost for time. Patients who are unable to pay for their healthcare or who do not fall into ACC or IPA criteria, are limited to public health services and for them, the opportunity cost of time is not a consideration.

84. For those patients who can afford to pay for their healthcare, private facilities offer quick service, and greater choice of specialist skills. However, these patients pay a premium for timeliness. Therefore, in general, patients whose opportunity cost of time outweighs their willingness and ability to pay for radiology services will choose private facilities. Those who are willing to accept long waiting periods in order to save on the cost of procedures will typically choose public facilities. Hence, timeliness and the cost associated with public and private procedures make these services differentiable and imperfect substitutes to patients.

85. The Commission recognises that public radiology may provide some degree of constraint on private radiology in terms of two factors identified in Decisions 449 and 492, namely:

- public hospitals have potential to carry out private radiology work, even if this would require a change in government policy; and
- public work can be contracted out to private providers to reduce waiting lists. Funding for public radiology services is determined according to independently derived formulae, which tend to set the benchmark for how much public providers will pay private providers.

86. The degree of constraint that the public system offers on private radiology providers may be lessened by the fact that the majority of private radiologists also work in the public system. Their availability to the public system, as well as funding limitations, to some extent dictates waiting times for public radiology services, which are an immediate driver of demand for private hospital services.

87. As such, the Commission considers that public hospitals act as a limited constraint on the behaviour of private radiology providers. However, the Commission also recognises that the key principle that guides market definition is the scope for substitution to occur between public and private radiology services.

88. The substitutability between public and private radiology will depend greatly on who bears the cost of treatment. In public facilities, the time opportunity costs associated with waiting lists are borne entirely by patients. However, for those patients who have a choice of public or private healthcare, the cost of treatment in private facilities is typically shared between those individuals who pay for services out-of-pocket, private insurers such as Southern Cross, and the Government via ACC.

89. In the face of a SSNIP imposed by a private radiology provider, it is highly likely that only those individuals who bear some of the incremental cost associated with the price rise (those who pay for treatment out-of-pocket and those whose cost of treatment prior to the price increase exceeded the payment cap set by their health insurer by a significant amount) would consider substituting away from private radiology in favour of public radiology. Accordingly, it is the Commission's view that the overall substitutability between private and public radiology is likely to be small because the proportion of individuals who fall into this category is small.

90. Giving full consideration to all these factors, the Commission concludes that, for the purposes of this application, public and private radiology providers should be considered as being in separate product markets.

Acute / Elective Procedures

91. Pacific submitted that the market could be delineated on the basis of the type of procedure being performed, either acute or elective (the Applicant used the terms routine and non-routine).

92. Demand for the provision of elective radiology procedures in the public system generally outstrips supply (or funding), so provision is rationed. As such, private providers rely on the overflow from the public system for elective patients. Given the waiting lists for elective procedures in the public system, the providers of public radiology services are constrained by lack of funding from competing with private providers for elective patients.

93. To this extent, delineation of the market on the basis of public and private providers as concluded above, rather than on the basis of acute/elective procedures, will capture any competition effects to which the proposed acquisition may give rise. As such, this method of splitting the market will not be considered further.

Low Tech vs. High Tech Services

94. It may be argued that since there is little scope for demand-side substitution amongst individual radiology services, each procedure should belong in its own discrete product market. However, the possibility of supply-side substitution due to large economies of scope that exist between many radiology services (particularly amongst low tech procedures) suggests a broader product market definition is more appropriate for some types of procedures.

95. Supply-side substitution can occur when suppliers can easily shift production, using largely unchanged production facilities and little or no additional investment in sunk

costs, and/or due to large economies of scope, when they are given a profit incentive to do so by a small change in their relative prices.

96. Economies of scope can arise, for example, when the existing labour pool is multi-skilled rather than narrowly specialised, and so require little costly additional training in order for production to be shifted to new modalities. For instance, in the specific case of radiology, all radiologists and radiographers receive training in the full range of low tech modalities, which makes expansion from one low tech procedure to another less costly from the standpoint of additional training requirements.[11]

97. It was noted by the Commission in the Fulford decision that:

> Generally speaking, routine (low tech) work involves a relatively low level of technology, is carried out on relatively inexpensive equipment, and involves staffing with standard qualifications. In contrast, non-routine (high tech) work is carried out on expensive equipment, requires more highly qualified staff, and is more technologically advanced. However, there is nothing to restrict a provider from supplying the full range of services subject to attracting a sufficient funding and customer base.

98. Given the relatively low sunk capital costs and standard skill requirements (which are likely to give rise to economies of scope) associated with providing most low tech procedures, it is likely that supply-side substitution could occur readily amongst these radiology services. [12] This is supported by the observation that low tech radiology providers in the greater Wellington region generally offer a full suite of these services. This suggests that the Commission should adopt a broader product market definition in relation to low tech procedures.

99. In contrast, the higher sunk costs and specialist knowledge involved in offering high tech services makes supply-side substitution more difficult amongst high tech procedures. This may explain why, of the two providers of high tech radiology services in the greater Wellington area, only one firm offers the full range of high tech procedures[13]. This, along with the absence of demand-side substitution, suggests that the Commission should adopt a narrow product market definition with respect to high tech services.

100. The exceptions, with regard to the high tech procedures, are angiography and interventional radiology. Having consulted with radiologists from other regions, the Commission understands that because the training programme for interventional radiology in Australia and New Zealand also includes training in angiography[14], many interventional radiologists can also perform angiography (non-cardiac angiography, in particular). Hence, angiography may be considered a subset of interventional radiology.

101. Due to this scope for supply-side substitution between these two high tech services, and since no aggregation would occur for angiography services as a result of the acquisition, for the purposes of this Application the Commission will consider angiography services and interventional radiology as belonging in the same product market.

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[11] In addition, some complementarities exist between low tech and high tech services. For instance, x-rays, DEXA scans, or CT scans, which are capable of imaging bony tissue, are performed along with MRI, which is better suited for imaging soft tissue. Similarly, fluoroscopy, x-rays, and ultrasound may assist interventional radiology work.

[12] For example, an ultra sound machine costs between $100,000 and $350,000 and a mammogram machine generally costs around $140,000.

[13] The two key private providers of high tech services in the Wellington region are Pacific and Wakefield. Wellington Radiology is primarily a provider of low tech services, although they do offer some limited interventional radiology work.

[14] Royal Australian & New Zealand College of Radiologists, (2003), *Handbook of Radiodiagnosis*, p. 16.

102. In conclusion, for the purposes of the present Application, it is the Commission's view that the relevant product markets are:

- one market encompassing all low tech services; and
- a discrete market for each of the high tech services, except angiography and interventional radiology, which are considered to belong in the same product market.

Geographic Markets

103. The Commission defines the geographic dimension of a market to include all of the relevant, spatially dispersed sources of supply to which buyers would turn should the prices of local sources of supply be raised.

104. The Applicant has submitted that the relevant geographic markets are as follows:

- small geographic regions within the greater Wellington area (Wellington City and suburbs, Wellington North, Hutt Valley, Porirua, Kapiti Coast, and Masterton) for low tech services and facilities; and
- the greater Wellington area for high tech services and facilities.

105. The Commission has considered the geographic extent to each relevant product market below.

Private Low Tech Services

106. Having consulted with radiology providers from Wellington and other regions, the Commission agrees with the Applicant's submission that, given the relatively low cost and wide availability of low tech procedures in the Wellington region, patients are unlikely to need to travel great distances to access these services. All consulted parties confirmed that, in practice, convenience is generally one of the foremost considerations for patients when choosing private low tech service providers. For example, patients who commute outside their geographic region of residence for work are not likely to travel back to that region to have a low tech procedure done through a private provider. These patients are more likely to access private low tech services near their place of work.

107. It is possible that some overlap exists between the catchment areas of individual private low tech service providers, in the sense that individuals on the geographic boundaries between two catchment areas may find it convenient to travel to either practice and can therefore readily substitute between providers. However, in the face of a SSNIP, the Commission is of the view that the proportion of patients who live in such overlapping areas is likely to be small in the context of the overall competition analysis.

108. Hence, for the purposes of the present application, the Commission considers it appropriate to define separate geographic markets for private low tech services in:

- Wellington city and suburbs;
- Wellington North (Johnsonville, Newlands, Tawa, Crofton Downs);
- Hutt Valley;
- Porirua;
- Kapiti Coast; and
- Masterton.

Private High Tech Services

109. The Applicant has submitted that scarcity of non-routine (high tech) services (for example, MRI patients from the Hutt Valley currently travel to Wellington to receive treatment) and the relationship between the referrer, whose medical knowledge the patient is reliant upon, and the provider of radiology services both contribute to how far patients are willing to travel in order to access these procedures.

110. The Commission is also aware that because high tech procedures often require high degrees of specialist knowledge (for instance, in therapeutic interventional radiology), the availability of subspecialties and the reputation of individual specialists can be a factor in persuading patients to travel outside their immediate geographic regions to access high tech services. Hence, a broader geographic definition of the market may be more appropriate than in the case of private high tech services.

111. Notwithstanding these points, there are a number of constraints on how far patients are willing to travel to access high tech procedures. Consultation with private radiology providers both within and outside greater Wellington has not revealed evidence of significant travel outside this region to access high tech services. For example, only four private providers of nuclear medicine aside from Wakefield in Wellington exist throughout the whole of New Zealand, the nearest of these being Fulford Radiology in Taranaki and New Zealand Medical Imaging (NZMI) in Hamilton. Neither of these practices provides nuclear treatment for patients from Wellington.

112. Independent radiology providers have suggested the following factors may limit a patient's willingness to travel outside the greater Wellington region to access high tech procedures, even in the face of a SSNIP:

- transport costs;
- opportunity cost of time;
- discomfort caused by extensive travel under illness; and
- few end users bear the full cost of treatment themselves.

113. In addition, while high tech services are still relatively scarce, they have become less scarce over time. For instance, in the Fulford decision, the relevant geographic market for the provision of non-routine (high tech) facilities and services was defined to be the entire North Island. However, it is highly likely that the fixed costs associated with the technology required to provide high tech services would have fallen over time, such that the availability of these high tech services throughout New Zealand has increased since the Fulford decision. As a result, patients are less likely to need to travel the long distances previously required to access these high tech services. For example, until late 2003 the Whangarei region did not have an MRI scanner available and so all patients from this region had to travel to Auckland to receive treatment. Today, private Auckland radiology clinics carry out very little MRI work for patients from Whangarei since the scanner was installed there.

114. Supply of nuclear medicine is unique in relation to other high tech procedures because only five private facilities throughout New Zealand offer this modality, whereas MRI, CT, and interventional radiology facilities are more widespread. Given that scarcity is a factor that motivates patients to travel long distances to access services, it could be argued that the Commission should adopt a wider geographic market definition for nuclear medicine than simply the greater Wellington area. However, given that no aggregation for nuclear medicine services would arise through the proposed acquisition,

and the nearest private providers of this procedure outside the Wellington region, Fulford Radiology and NZMI, do not treat patients from Wellington, the Commission is of the view that defining the relevant geographic market as the greater Wellington area for nuclear medicine would be sufficient for the purposes of this application.

115. Considering all these factors, the Commission is of the view that the relevant geographic market for each private, high tech procedure should be defined more broadly than the small geographic regions within Wellington, as in the case of low tech services, but more narrowly than the entire North Island, as in the Fulford decision. Hence, the Commission concludes that for the purposes of the present application, the relevant geographic market for each private, high tech procedure is the greater Wellington region.

Conclusion on Market Definition

116. The Commission concludes that for the purposes of this application, the relevant markets are:

- the provision of private low tech radiology services in each of the following separate geographic regions within the greater Wellington area:
  - Wellington city and suburbs;
  - Wellington North (Johnsonville, Newlands, Tawa, Crofton Downs);
  - Hutt Valley;
  - Porirua;
  - Kapiti Coast; and
  - Masterton (the low tech markets).
- the provision of the following private high tech radiology services for the greater Wellington area:
  - MRI scans (the MRI market);
  - CT scans (the CT market);
  - Nuclear medicine (the nuclear market); and
  - Interventional radiology, including angiography (the interventional market.

COUNTERFACTUAL AND FACTUAL

117. In reaching a conclusion about whether an acquisition is likely to lead to a substantial lessening of competition, the Commission makes a "with" and "without" comparison rather than a "before" and "after" comparison. The comparison is between two hypothetical future situations, one with the acquisition (the factual) and one without (the counterfactual).[15] The difference in competition between these two scenarios is then able to be attributed to the impact of the acquisition.

[15] Commerce Commission, Decision 410*: Ruapehu Alpine Lifts Ltd/Turoa Ski Resorts Ltd (in receivorship)*, 14 November 2000, paragraph 240, p 44.

Factual

118. The Applicant submitted that the key driver for Pacific's acquisition of Wakefield's radiology business is to address the shortage of skilled radiologists in the Wellington region. The acquisition will create an organisation similar to Pacific's Christchurch organisation which has been very successful in attracting highly skilled New Zealand radiologists back from overseas through an efficient co-operative type structure. This structure has resulted in larger combined purchasing power for expensive equipment which has further attracted the top radiology specialists.

119. Modern radiology is highly capital intensive. Pacific and Wakefield believe that, in New Zealand, the demands of modern radiology will most likely be met by large overseas radiology corporates (as in Australia) or by larger groupings of New Zealand radiologist shareholders.

120. Further, the Applicant submitted that any new projects planned for the Wellington region (clinics, MRIs, PET scanners) would require large amounts of capital. Following the acquisition of Wakefield's radiology practice, Pacific would have paid up capital and reserves on 1 April 2004 of in excess of [ ] with further shareholder or bank funding lines of [ ]. Wakefield's latest balance sheet showed capital and reserves at [ ]. Wakefield is not in a position to undertake further expansion without a new equity partner and cannot attract new young radiologists to the company as it would need them to put up large amounts of capital.

121. Pacific stated that it adheres to the principle (similar to the Australian Radiology corporates) that a minimum of 35% EBITDA is required for a modern radiology practice to sustain itself in terms of reinvestment in equipment. It advised that the present separate Hutt and Wakefield practices are not achieving this level, and that they require reorganisation with more efficient administrative practices and some initial capital funding. Pacific suggested that stable future earnings gives security of employment to both the radiologists and their staff.

122. In the factual scenario, the Commission considers that Pacific and Wakefield would operate as a single entity and would be the sole private provider of high tech radiology services in the Wellington region.

Counterfactual

123. During its investigation, the Commission was unable to identify a possible alternative buyer for Wakefield. Therefore, the Commission considers that absent the acquisition, Pacific and Wakefield would continue to operate as two separate entities offering the range of services which they provide presently.

In addition, the Commission considers it likely that in the counterfactual, Pacific would enter the MRI market within [ ]. Pacific advised the Commission [

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[

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124. Therefore, the Commission will use the counterfactual of Pacific and Wakefield providing low tech services in the areas in which they operate presently, as well as competing for business in the markets for CT, interventional radiology, and MRI. In addition, Wakefield would also continue with the provision of services in the nuclear medicine market as per the status quo.

COMPETITION ANALYSIS

125. Existing competition occurs between those businesses in the market that already supply the product, and those that could readily do so by adjusting their product-mix (near competitors). Supply-side substitution by near competitors arises either from redeployment of existing capacity, or from expansion involving minimal investment, in both cases involving a delay of no more than one year.

126. An examination of concentration in a market can provide a useful indication of the competitive constraints that market participants may place upon each other, providing there is not significant product differentiation. Moreover, the increase in seller concentration caused by a reduction in the number of competitors in a market by an acquisition is an indicator of the extent to which competition in the market may be lessened.

127. The Commission identifies market shares for all significant participants in the relevant market. Market shares can be measured in terms of revenues, volumes of goods sold, production capacities or inputs (such as labour or capital) used.

128. An aggregation that would result in a low concentration level is unlikely to be associated with a substantial lessening of competition in a market. On this basis, indicative safe harbours may be specified.

129. A business acquisition is considered unlikely to substantially lessen competition in a market where, after the proposed acquisition, either of the following situations exist:

- where the three-firm concentration ratio (with individual firms' market shares including any interconnected or associated persons) in the relevant market is below 70%, the combined entity (including any interconnected or associated persons) has less than in the order of a 40% share; or
- where the three-firm concentration ratio (with individual firms' market shares including any interconnected or associated persons) in the relevant market is above 70%, the market share of the combined entity is less than in the order of 20%.

The Low Tech Services Markets

Market Concentration

130. The proposed acquisition will not give rise to aggregation in any of the geographic low tech markets defined above. Pacific operates in only in Lower and Upper Hutt, where Wakefield does not operate.

Conclusion on the Low Tech Services Markets

131. The Commission considers that, as no aggregation will occur in any of the low tech markets, the acquisition is unlikely to give rise to a substantial lessening of competition in any of those markets. Therefore, the Commission does not intend to consider the low tech markets further.

The High Tech Markets

132. As Pacific does not presently provide nuclear medicine services and is unlikely to provide nuclear medicine services in the foreseeable future, the acquisition is unlikely to give rise to a substantial lessening of competition in the nuclear market. Accordingly, the Commission does not intend to consider this market further.

133. The proposed acquisition will give rise to aggregation in respect of the CT and interventional markets. The Commission will assess the impact of the proposed merger on competition in these markets.

134. In addition, while the proposed acquisition will not give rise to immediate aggregation in the MRI market, the Commission understands that prior to the merger negotiations, Pacific intended to enter the MRI market within [ ]. As such, the proposed merger could give rise to a loss of constraint in the MRI market, and potentially a lessening of competition. To that extent, the Commission also intends to assess the impact of the proposed merger on competition in the MRI market.

Market Concentration

The CT Market

135. Presently, Pacific and Wakefield are the only two private providers of CT scans in the Wellington region. Table 5 sets out the revenue respectively derived by Pacific and Wakefield from CT scans in the Wellington region.

Table 5: Market Shares of the CT Market

Provider	**Revenue ($)**	**Market share (%)**
Wakefield	[ ]	[ ]
Pacific	[ ]	[ ]
TOTAL	**[ ]**	**100**

136. The acquisition will give rise to 100% aggregation in the CT market, which is outside the Commission's safe harbours.

The Interventional Market

137. Pacific and Wakefield are also the only two private providers of interventional radiology services in the Wellington region. Table 6 sets out the revenue derived respectively by Pacific and Wakefield from interventional procedures in the Wellington region.

Table 6: Market Shares of the Interventional Market

Provider	Revenue ($)	Market share (%)
Wakefield	[ ]	[ ]
Pacific	[ ]	[ ]
TOTAL	**[ ]**	**100**

138. The acquisition will give rise to 100% aggregation in the interventional market, which is outside the Commission's safe harbours.

The MRI Market

139. As discussed above, the proposed acquisition will not give rise to any aggregation in the MRI market. However, it could remove a potential competitor and important constraint from the market. To illustrate the present size of the market, Wakefield's revenue figures for this procedure are shown in Table 7.

Table 7: Market Share for the MRI Market

Provider	Revenue ($)	Market share (%)
Wakefield	[ ]	[ ]
TOTAL	**[ ]**	**100**

140. The Commission recognises that concentration is only one of a number of factors to be considered in the assessment of competition in a market. In order to understand the impact of the acquisition on competition, and having identified the level of concentration in a market, the Commission considers the behaviour of the businesses in the market. Specifically, the Commission seeks to understand the dynamics of the competition that would exist between the remaining firms in the market, compared to what would exist in the absence of the merger

Potential Competition in the CT, Interventional and MRI Markets

141. An acquisition is unlikely to result in a substantial lessening of competition in a market if the businesses in that market continue to be subject to real constraints from the threat of market entry.

142. The Commission's focus is on whether businesses would be able to enter the market and thereafter expand should they be given an inducement to do so, and the extent of any barriers they might encounter should they try. Where barriers to entry in a market are clearly low, it may be unnecessary for the Commission to identify specific businesses that might enter. In other markets, where barriers are higher, the Commission may seek to identify possible new entrants as a way of testing the assessed entry barriers.

Method of Entry

143. In order to enter the markets for high tech radiology services, a new entrant would require:

- suitably qualified radiologists;
- the ability to form relationships with referring specialists;
- a location near specialists;
- capital investment; and
- some funding from ACC and IPA.

144. During the course of its investigation, Commission staff were advised that potential entry into the high tech radiology services is likely to occur through acquisition rather than a greenfields entry. This is because a new entrant who acquires an existing practice will be less likely to face the potential barriers of recruiting radiologists and building up a specialist referral base.

145. The Commission notes that Sonic entered New Zealand via acquisition with Mercy Radiology, Auckland in 1999 and via acquisition of a Palmerston North and Christchurch practice in 2001. Sonic has advised the Commission that if it were to enter Wellington it would enter by acquisition of a practice that had experienced radiologists and an established referral base.

146. The Commission notes the presence of Wellington Radiology, a small two-partner, low tech radiology practice based at Bowen Hospital, which could represent a potential acquisition for Sonic or any other potential entrant. [

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147. Auckland radiology groups agreed that entry into the Wellington market was most likely to be through acquisition of an existing practice. Overall, the Commission considers that entry into high tech radiology services in Wellington is likely to occur through acquisition rather than greenfields entry.

Barriers to Entry

148. The likely effectiveness of the threat of new entry in preventing a substantial lessening of competition in a market following an acquisition is determined by the nature and effect of the aggregate barriers to entry into that market. The Commission is of the view that a barrier to entry is best defined as anything that amounts to a cost or

disadvantage that a business has to face to enter a market that an established incumbent does not face.

149. This section considers the potential barriers to entry into each of the CT, interventional and MRI markets as similar barriers apply to all three markets.

Availability of Radiologists

150. Commission staff have spoken with a number of radiologists who advised the Commission that there is a shortage of radiologists in New Zealand, and in fact worldwide. Dr Mike Baker, managing partner of The Radiology Group, Auckland, stated that

> it is a very real issue for all of us that there is a radiologist shortage.

151. In the 2002 RANZCR Workforce Survey, 70.1% of radiologists indicated that they believed there was a shortage of radiologists in New Zealand. The RANZCR confirmed that there was still a shortage of radiologists in New Zealand and that this shortage was likely to continue.

152. The Applicant states that:

> While there is a general shortage of radiologists in New Zealand, there is no significant barrier to Australian radiologists working in New Zealand. Larger companies such as Sonic can move radiologists between Australia and New Zealand operating both countries as a common market.

153. Commission staff spoke with Sonic who advised that such a proposition does not reflect its current situation. Sonic's Palmerston North and Christchurch practices are currently both short of radiologists. Sonic is only able to recruit radiologists from its Australian practices for one to two week periods. Peter Savage, Chief Financial Officer, Medical Imaging Division, Sonic, stated that its Australian radiologists are unwilling to commit to lengthy stays in New Zealand. One reason offered was that once radiologists became fully qualified, they tend to be in their mid thirties with family considerations and were therefore unwilling to be away for periods longer than a few weeks. To this extent, Sonic had been unsuccessful in persuading its Australian radiologists to move to New Zealand.

154. Teleradiology is the process of sending radiologic images from one point to another through digital, computer-assisted transmission. Through teleradiology, images can be sent to another part of a hospital, or around the world to be analysed by other radiologists. The Applicant has submitted that teleradiology may potentially replace the need for radiologists to be present during high tech radiology procedures. This could mean that a new entrant could enter a region with no radiologists and instead utilise teleradiography to transmit the images for diagnosis to a radiologist at another site.

155. Commission staff have spoken with a number of radiology practices who advised that while teleradiology is becoming more frequently used for low tech procedures, its use was limited for high tech services. This is because, in general, radiologists prefer to be on site to adjust the equipment, monitor patient's reactions and be available to address any complication that could arise. The Commission acknowledges that while teleradiology could be used in certain circumstances for some high tech procedures such as routine MRI, it is currently unlikely to be fully utilised by radiologists for high tech services. Accordingly, the Commission considers that a new entrant is likely to require radiologists on site in order to enter the market with high tech services.

156. One way of gaining radiologists is to "poach" them from another practice. In fact, when Auckland X-Ray Services entered the Auckland market six months ago, it was able to poach two radiologists from Mercy Radiology.

157. The Commission notes that the shareholding radiologists in the merged entity would be subject to restraint of trade clauses in their employment contracts. The terms require that a shareholding radiologist cannot join a competing practice, either as a shareholder or an employee, within a [ ] after the termination of their employment with the merged entity.

158. However,[

]. In addition, a new entrant may be able to secure the services of radiologists from outside the region, however, this seems less likely.

159. The Commission considers that the availability of radiologists may constitute a high barrier to entry for a de novo entrant. However, if a new entrant was to enter the high tech markets by acquiring an existing low tech practice [
] and expanding into high tech procedures, then the availability of radiologists becomes less of a barrier to entry.

160. In summary, there is a general shortage of radiologists, and poaching radiologists from other practices may be difficult due to the existence of restraint of trade clauses. However, the potential exists for entry in Wellington through the acquisition and expansion of an existing low tech practice, which already has radiologists. On balance, the Commission considers that, the availability of radiologists is likely to represent a moderate barrier to entry.

Establishing Relationships with Specialists

161. As discussed earlier in this report, the majority of patients requiring high tech procedures are referred to radiologists by specialists. Radiologists advised Commission staff that to enter a region, a new entrant would need to ensure that they have a referral base from which to obtain business.

162. The RANZCR noted that radiologists who remain in the country are more likely to remain in the areas in which they were trained meaning their relationships with specialists could already be established. In addition, contacts may be in place from as far back as medical school.

163. Absent such relationships, some radiologists estimated that it could take up to one year to establish a referral base.

164. The Commission understands that these relationships may be formed more quickly by:

- consulting and interacting with specialists at the public hospital;
- attending working groups that include specialists with related specialities; and/or
- having a particular radiology specialty that is of value to specialists in the area.

165. As the Commission considers that any entry into this market would occur through acquisition, an existing practice is likely to have an established referral base from which the acquirer could operate. As such, the need to secure a referral base is unlikely to be a barrier if entry is effected by the acquisition and expansion of an existing low tech practice.

166. Overall, the Commission considers that the need to establish an adequate referral base is likely to represent a low to moderate barrier to entry.

Location

167. In order to enter a region, a new radiology practice would ideally locate itself within a private hospital. This is because many specialists are located at private hospitals that are likely to provide an excellent referral base. If this is not possible, then it would be desirable for a radiology practice to locate close to specialists or its referral base.

168. Commission staff have consulted a number of radiology practices who have advised that finding a suitable location is unlikely to present a barrier to any new entrant into the Wellington region, as entry is more likely to occur through acquisition and subsequent expansion, it is likely that a good location would already be secured. [ ].

Capital Investment

169. A new entrant in the market for high tech radiology services would need to invest a large amount of capital in purchasing the relevant equipment. The capital investment required may be a sunk cost.

170. Sunk costs are generally understood as capital outlay that cannot be recovered (or can only be partially recovered) upon exit. Costs of exit thus will limit the potential entry of third parties in the market, as the risk of non-recovery of the invested capital is high. The Commission considers that the judgement as to whether sunk costs are "high" must be made in relation to the value and size of and demand within the market that a new entrant could serve.

171. Radiology practices tend to replace high tech equipment such as MRI every 5-7 years. Wakefield purchased its MRI Scanner [ ]. The Commission understands that MRI scanners now cost around $3 million.

172. CT scanners generally cost around $1.3 million. Wakefield purchased its CT scanner [ ].

173. The Commission understands that a number of interventional procedures can be performed using "add on" equipment on existing low tech equipment. For example, a hookwire localisation[16] will use a mammography machine together with ultrasound and stereotactic machines. The Commission notes, however, that specialised angiogram tables for which angiograms are performed can cost around $1 million.

174. The Commission notes that the poor resale value of high tech radiology equipment such as MRI and CT scanners, may present a barrier to exit, unless there is sufficient demand for the machine to be operationally efficient.

175. The Commission understands that to be operationally efficient, an MRI scanner needs to be processing around 7 patients per day (the average MRI procedure takes around 45 minutes). Wakefield's MRI machine is operating [ ] patients per day [ ]).[17] As Hutt Hospital does not have an MRI machine of its own it contracts with Wakefield for the provision of MRI services.

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[16] A procedure used when a very small lesion in the breast is detected on a mammogram or ultrasound, and it requires surgical removal.

[17] Although Wellington Public Hospital does not compete in the same market as Wakefield in respect of MRI scans, the Commission notes that its MRI machine is operating at full capacity.

176. The Commission notes that the demand for high tech radiology imaging, particularly CT and MRI scanning is increasing.. High tech radiology equipment has resulted in greater specialist use of such equipment for diagnostic purposes. In particular, the use of MRI and CT Scanners has increased due to:

- specialists becoming more experienced with diagnosis using high tech radiology modalities;
- new technologies and improved diagnostic capabilities of MRI and CT scanners; and
- the fact that specialists are practicing "defensive medicine" and are therefore more likely to utilise more sophisticated radiology equipment to obtain the most comprehensive diagnosis.

177. Given the growth in demand for high tech radiology procedures, the Commission is of the view that sufficient demand exists in the greater Wellington region to make new entry into the CT, MRI and interventional markets viable.

178. Radiologists interviewed by Commission staff advised that finance for the purchase of high tech radiology equipment is available providing a viable business case is presented. The Commission considers that sufficient demand exists for high tech diagnostic imaging in the greater Wellington region such that a near entrant could secure sufficient finance to purchase hi tech imaging machines, particularly if that near entrant is a large Australian corporate with several profitable practices in other parts of New Zealand.

179. Therefore, the Commission notes the possible sunk costs in terms of barriers to exit in purchasing expensive high tech radiology equipment such as an MRI scanner. However it considers that sufficient demand exists for more capacity in the high tech markets and that demand for high tech imaging is increasing such that a viable business case could be made in order to secure capital. As such, the Commission considers that access to capital poses no more than a moderate barrier to entry.

Funding

180. In general, high tech radiology practices in the Wellington region obtain around [ ] of their total revenue from ACC and the IPAs. In order to receive funding from these bodies it is necessary for radiology practices to enter into contracts for services with the funding agency.

181. ACC contracts with radiology providers for two years. The main criterion is that the practice be IANZ accredited. ACC informed Commission staff that it intends to renew its current contracts in mid 2004, and will contract with any new provider at this time if it is IANZ accredited.

182. Similarly, the Commission has been informed by Kowhai and WIPA, Wellington's two IPAs, that they are willing to enter into agreements with a new entrant as long as they are able to provide the required services.

183. Overall, the Commission therefore considers that obtaining funding from ACC and the IPAs is unlikely to represent a barrier to entry.

Conclusion on Barriers to Entry in CT, Interventional and MRI Markets

184. The Commission has considered the various factors relevant to the assessment of the entry barriers in the CT, interventional and MRI markets, specifically:

- the shortage of radiologists;

- establishing relationships with specialists; and
- capital investment.

185. The Commission considers that barriers to entering the high tech markets are no more than moderate to high.

The "LET" Test

186. In order for market entry to be a sufficient constraint, entry of new participants in response to a price increase or other manifestation of market power must be Likely, sufficient in Extent and Timely (the LET test).

Likelihood of Entry

187. The mere possibility of entry is, in the Commission's view, an insufficient constraint on the exercise of market power, and would not alleviate concerns about a substantial lessening of competition. In order to be a constraint on market participants, entry must be likely in commercial terms. An economically rational business would be unlikely to enter a market unless it has a reasonable prospect of achieving a satisfactory return on its investment, including allowance for any risks involved.

188. The Applicant cited a number of Australian and New Zealand based companies as potential entrants into the Wellington region. Specifically, the Applicant cited the large Auckland practices, and Aus-Care and Sonic of Australia and as potential entrants. The Commission has considered each in turn.

189. The large New Zealand owned Auckland practices indicated that they were unlikely to enter the Wellington market for high tech services.[18] Rather, they preferred to concentrate on Auckland, and in some cases, the upper North Island.

190. Aus-Care entered the Auckland market in mid 2003 with a suite of low tech services and a CT scanner using a low cost and high volume business model. Aus-Care advised Commission staff that their model was successful in Australia.

191. [

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Mr John Bell Allen, Chief Executive Officer, Aus-Care, advised the Commission that [

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192. Sonic entered New Zealand with its purchase of Mercy Radiology in Auckland in 1999. It then acquired a radiology practice in Palmerston North and one in Christchurch in 2001. Sonic advised Commission staff that [

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[18] For example, Commission Staff spoke with The Radiology Group which operates 10 sites around Auckland and The Auckland Radiology Group which operates 21 practices around Auckland.

Peter Savage of Sonic stated that [

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193. Peter Savage also noted that if the merged entity were to increase prices or reduce quality [ ].

194. Peter Dixon, 20% shareholder in Sonic's Palmerston North practice, stated that, post acquisition, [ ]. He also pointed out that the merged entity would be very aware of Sonic's ability to enter at any time.

195. As discussed earlier, Sonic has advised the Commission that if it were to enter Wellington it would enter through acquisition of a practice that had experienced radiologists and an established referral base and expand into high tech procedures.

196. The Commission noted previously that [

], the Commission has found no more than moderate barriers to entrants expanding into high tech services such as MRI and CT scans.

197. Commission staff interviewed a number of radiology practices, which commented that it is likely that the merged entity would be aware that Sonic and Aus-Care have the ability to enter the Wellington market relatively quickly. In addition, it appears that there is sufficient demand in the Wellington market to sustain extra capacity in the high tech markets.

198. On balance, the Commission considers that sufficient demand exists in the Wellington markets for high tech imaging to support and sustain new entry. In addition, the Commission is of the view that Sonic and Aus-Care are likely entrants, through the acquisition and expansion of an existing low tech practice, [ ], into the markets for MRI, CT and interventional radiology in the face of an attempt by the merged entity to raise prices.

Extent of Entry

199. If it is to constrain market participants, the threat of entry must be at a level and spread of sales that is likely to cause market participants to react in a significant manner.

200. As discussed above, Sonic and Aus-Cares's potential entry into Wellington would most likely occur through acquisition of a low tech practice such as [ ]. In order to sufficiently constrain the merged entity, Sonic and Aus-Care would need to expand into high tech radiology services such as MRI and CT Scans and in doing so, would likely face no more than moderate barriers to expansion.

201. The Commission considers that Sonic and Aus-Care have the capital base and expertise such that their entry into the markets for MRI, CT and interventional radiology would be sufficient in extent to prevent the combined entity from raising prices significantly or restricting the supply or quality of services.

Timeliness of Entry

202. If it is to alleviate concerns about a substantial lessening of competition, entry must be feasible within a reasonably short timeframe, considered to be two years, from the point at which market power is first exercised.

203. Sonic and Aus-Care are both large Australian corporates with the ability to acquire an existing Wellington practice and expand it into the provision of high tech services. Each could achieve this inside two years.

Conclusion on Potential Competition in CT, Interventional and MRI Markets

204. Overall, the Commission considers that Sonic and Aus-Care are likely and timely entrants that would likely be able to sustain entry.

Countervailing Power

205. The potential for a business to wield market power may be constrained by countervailing power in the hands of its customers, or when considering buyer market power (oligopsony or monopsony), its suppliers. In some circumstances, this constraint may be sufficient to eliminate concerns that an acquisition would be likely to lead to a substantial lessening of competition.

206. This section includes discussion on countervailing power in respect of each of the high tech markets for MRI scans, CT scans and interventional radiology.

District Health Boards

207. As discussed in the section on market definition, DHBs provide a degree of constraint on private radiology providers in that the private providers are reliant on the overflow from the public system for their business.

208. Hutt Hospital is currently unable to provide an MRI service to its patients and has no plans to purchase its own MRI machine. It therefore chooses to purchase MRI services from Wakefield. Hutt Hospital cannot utilise Wellington Hospital's MRI machine as it is currently operating at full capacity.

209. Hutt Hospital referred approximately [230] patients to Wakefield for MRI services in 2003 which accounts for [ ] of Wakefield's total revenue. Similarly, Masterton Hospital also refers some patients to Wakefield for high tech radiology services which accounts for [ ] of Wakefield's total revenue. Taken together, Hutt Hospital and Masterton Hospital could be considered important purchasers of radiology services and are likely to have at least some countervailing power in respect of MRI procedures.

IPAs

210. DHBs fund IPAs to provide community-based radiology. Kowhai forecasts that its expenditure will be [ ] for the year ending June 2004, while WIPA expects to spend around [ ]. Typically IPA referrals are to private providers.

211. IPA funding contributes around [ ]% of Pacific and Wakefield's respective total revenues.

212. Private providers are precluded from charging an IPA-referred patient a co-payment. Private provider receives from the IPA a fee for the service provided. WIPA agrees prices individually with private providers and accordingly, WIPA is able to exert some downward pressure on the prices of individual providers.

213. The Hutt Valley DHB sets the prices for Kowhai's community based radiology programme using the RVU model. As such, Kowhai is the price setter and is also able to exert downward pressure on the prices of individual providers.

214. In respect of Community Services Card and High User Card holders, the IPAs preclude the radiology service provider from charging the patient a co-payment. However, they do not impose the same restriction on the charging of non-card holders. The split of card holders and non-card holders accessing radiology services through the IPA scheme is around 50/50. To this extent, the merged entity may be unconstrained in respect of the imposition of a co-payment to around 50% of patients accessing the IPA scheme.

215. Presently, Kowhai tends to contract with private radiology providers in the Hutt, while WIPA which has arrangements with private providers in both Wellington and the Hutt, tends to utilise those in Wellington. It is important to note that both Kowhai and WIPA currently have a choice of private providers with which to contract.

216. In the factual, the Commission notes that the IPAs would only be able to contract with the merged entity, and accordingly, their ability to dictate the prices that they are willing to pay individually may be reduced. However, the Commission considers that the threat of potential entry from Sonic and Aus-Care, should the price of high tech radiology services rise post-merger, would allow the IPAs to continue to exert downward pressure on the merged entity due to their ability to switch to a new entrant within a short period of time.

217. On balance, the Commission considers that the IPAs are likely to have a degree of countervailing power, as the funding they provide represents a significant portion of the private providers' revenue.

ACC

218. ACC accounts for approximately [ ] of Wakefield total revenues for high tech procedures and [ ] for Pacific. ACC does not permit its contracted providers to charge a co-payment on high tech services and payment is on a set fee basis. ACC sets these prices based on the RVU.

219. ACC contracted providers are price takers and must accept the RVU for service that applies nationally when performing ACC work. However, post acquisition the merged entity would be the only private provider in the Wellington market, meaning that ACC, like the IPAs, would be able to contract with the merged entity only. Therefore, the ACC could possibly lose some bargaining power.

220. However, Pacific has also contracted with ACC for the provision of radiology services in Christchurch and Nelson, and any attempt to raise the price ACC pays it in Wellington could impact adversely on Pacific's Christchurch practice, where it faces competition.

221. Accordingly, the Commission considers that ACC has a significant degree of countervailing power.

Medical Insurers

222. Wakefield and Pacific estimate that approximately [ ] of their patients are funded by medical insurers. Southern Cross represents [ ] of this insurance revenue which means that of the insurer funded radiology, Southern Cross is the majority funder of insurer-funded radiology services.

223. Around [ ] of Southern Cross patients have some form of shared care policy that involves the patient paying the full cost of the services and then applying to Southern Cross for the refund of amounts up to the agreed cap on these services (typically 80%).

Southern Cross is unlikely to have the ability to cap or restrict the remaining amount a patient may have to pay for its radiology services.

224. In order to address this problem, Southern Cross has advised the Commission that it has set up Affiliated Provider Programmes (APP) with three to four private radiology providers in New Zealand. It is a scheme similar to ACC's in that Southern Cross contracts individually with radiology practices at agreed prices. Southern Cross [
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225. [

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226. However, it should be noted that Pacific [

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227. On balance, it is likely that Southern Cross would have a degree of countervailing power with respect to the merged entity.

Conclusion on Countervailing Power

228. Post-acquisition, the Commission considers that taken together, DHBs, IPAs, ACC, and Southern Cross would have the ability to exert some downward pressure on prices for high tech services in Wellington, and as such, they would have a significant degree of countervailing power, however on its own, this may be insufficient to constrain the merged entity.

OVERALL CONCLUSION

229. The Commission has considered the probable nature and extent of competition that would exist in the counterfactual in the following markets:

- The provision of private low tech radiology services in each of the following separate geographic regions within the greater Wellington area:
  - Wellington city and suburbs;
  - Wellington North (Johnsonville, Newlands, Tawa, Crofton Downs);
  - Hutt Valley;
  - Porirua;
  - Kapiti Coast; and
  - Masterton (the low tech markets).

And,

- The provision of the following private high tech radiology services for the greater Wellington area:
    - MRI scans (the MRI market);
    - CT scans (the CT market);
    - Nuclear medicine (the nuclear market); and
    - Interventional radiology, including angiography (the interventional market.

230. The Commission considers that the appropriate counterfactual is the continuation of Pacific and Wakefield as separate entities competing in the markets in which they presently operate, with Pacific entering the MRI market within [ ].

231. The Commission has considered the nature and extent of the contemplated lessening in the relevant markets. The Commission is satisfied that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition, in the markets for low tech services, as no aggregation will occur in any of the regional low tech markets.

232. However, the proposed acquisition would result in the merged entity obtaining a market share that falls outside the Commission's safe harbour guidelines in the markets for CT and interventional radiology procedures. In addition, the merger would remove a potential entrant and constraint in the market for MRI.

233. The Commission considers that barriers to entering the high tech markets are no more than moderate to high and that de novo entry is unlikely. However, Sonic and Aus-care are potential entrants who could enter through acquiring and expanding an existing low tech radiology practice. The Commission is of the view that sufficient demand exists in the greater Wellington market to support and sustain any such entry.

234. The Commission also considers that cumulatively, funding providers such as DHBs, IPAs, ACC, and Southern Cross would have significant countervailing power but that taken on its own the cumulative countervailing power of funders may be insufficient to constrain the merged entity. However, the countervailing power of the funders would likely be augmented if coupled with entry to the markets.

235. Accordingly, on balance, the Commission considers that the likelihood of new entry in the face of an attempt by the merged entity to raise prices, coupled with the countervailing power of the funding agencies would be sufficient to constrain the merged entity. Therefore, the Commission is satisfied that the proposed acquisition would not have, nor would be likely to have, the effect of substantially lessening competition, in the markets for high tech services.

236. Accordingly, pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Pacific of the radiology services business and assets of Wakefield.

DETERMINATION ON NOTICE OF CLEARANCE

237. Accordingly, pursuant to section 66(3) (a) of the Commerce Act 1986, the Commission determines to give clearance for the proposed acquisition by Pacific Radiology Limited of the radiology services business and assets of Wakefield Radiology Limited.

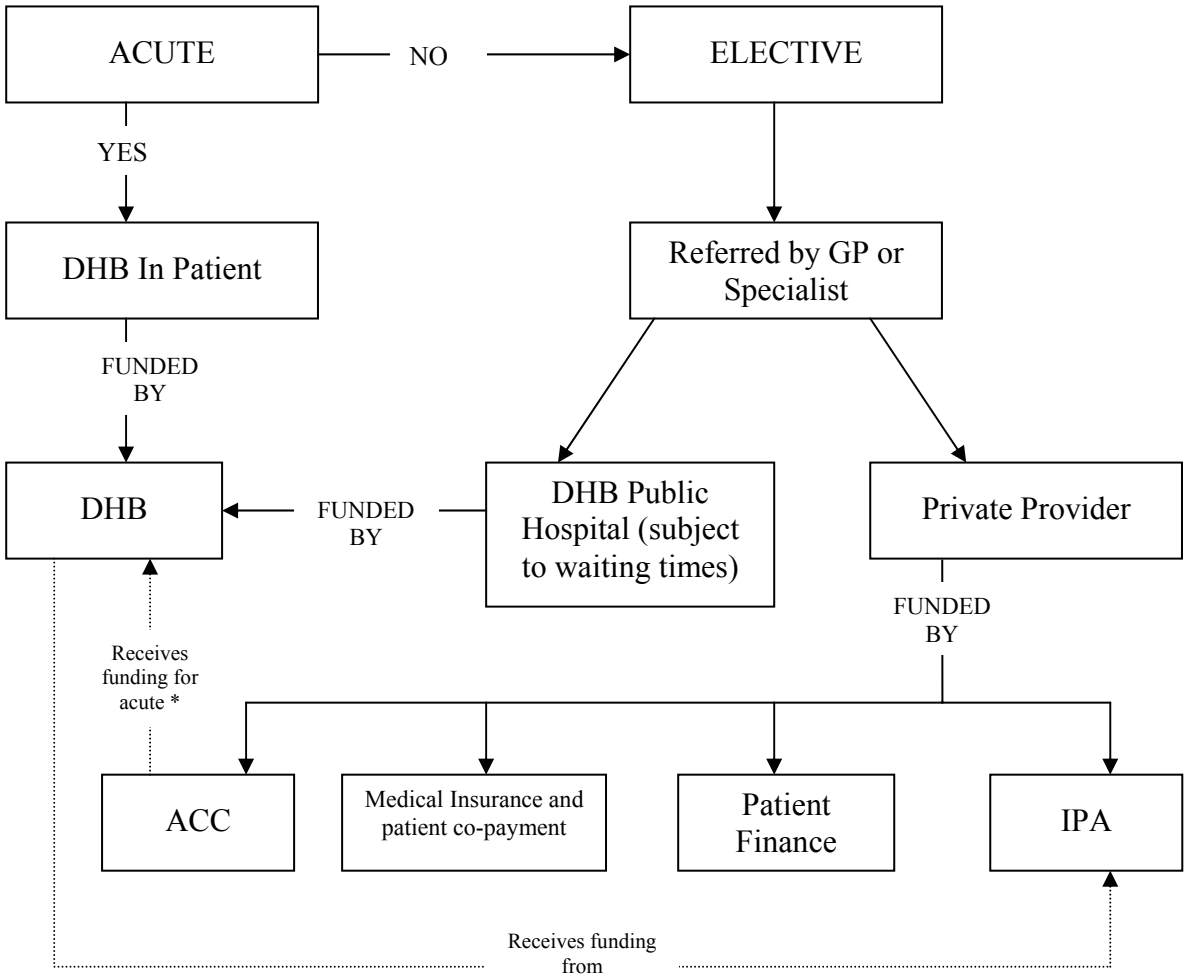
Dated this 26th day of February 2004

Paula Rebstock

Chair

APPENDIX 1

Patient and Revenue Flows for Radiology Services



*** Note:** ACC pay an annual bulk amount to the Ministry of Health to cover the cost of ACC related acute services provided by public hospitals.