DETERMINATION OF MERGER NOTIFICATION M/07/031 – GALCO/SPERRIN/SPERRIN

Section 22 of the Competition Act 2002

Proposed acquisition by Galco Steel Limited of Sperrin Galvanisers (Irl) Limited and Sperrin Galvanisers Limited

Dated 2/10/2007

The Competition Authority
An tÚdarás Iomaíochta

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SECTION 1: THE NOTIFIED TRANSACTION

The Notification

1.1 On 12 June 2007, the Competition Authority, in accordance with section 18(3) of the Competition Act 2002 (the "Act"), was notified on a voluntary basis of a proposal whereby Galco Steel Limited ("Galco") would acquire the entire issued share capital of two commonly owned companies, Sperrin Galvanisers (Irl) Limited and Sperrin Galvanisers Limited (collectively, "Sperrin").

The Undertakings Involved

The Acquirer

1.2 The acquirer, Galco, is a company incorporated in the State. Its main area of activity is the provision of hot dip galvanising, a form of corrosion protection for steel. It also provides paint solutions, drainage systems, access covers and frames and related technical support.

1.3 Galco operates three hot dip galvanising facilities, at:

- Ballymount Road, Dublin 12;
- Tramore Road, Cork; and,
- Gracedieu Road, Waterford.

Galco's turnover was €19,455,000 for the financial year ending 31 May 2006. For the eleven-month period from 1 June 2006 to 30 April 2007, its turnover was €[ ].

The Target

1.4 Both Sperrin companies are involved in the supply of hot dip galvanising. They also provide shotblasting, stripping and T washing services.[1]

1.5 Sperrin Galvanisers (Irl) Limited ("Sperrin Tynagh") is incorporated in the State. It operates a hot dip galvanising facility at Tynagh, Loughrea, Co. Galway, which opened in 2004. For the twelve month period from 1 May 2006 to 30 April 2007, its turnover was €[ ].

1.6 Sperrin Galvanisers Limited ("Sperrin NI") is incorporated in Northern Ireland. It informed the Authority that it operates a hot dip galvanising facility in Draperstown, Co. Derry, which opened in 1997. For the twelve month period from 1 May 2006 to 30 April 2007, its turnover was stg£[ ] (approximately €[ ]).

The Transaction

1.7 Pursuant to a Share Purchase Agreement dated 16 May 2007, Galco proposes to purchase the entire issued share capital of both Sperrin companies. The consideration is €[ ] plus [ ].

[1] The first two processes are used to clean steel before it is galvanised, the latter is used to pre-treat a galvanised surface before it is painted.

Ancillary Non-compete Clause

1.8 Clause 7.1 of the Share Purchase Agreement contains restrictions on Damien Convery, the current owner of both Sperrin companies, from competing with Sperrin on the island of Ireland for a period of [ ] years from completion of the proposed acquisition. The Authority considers that these arrangements are directly related and necessary to the implementation of the proposed transaction, since without them, the rationale for the proposed transaction and its value to Galco, is undermined.

Rationale for the Notified Transaction

1.9 Galco stated that it intends to acquire Sperrin to further enhance the efficiency of its commercial operation so as to continue to provide a competitive, cost effective service to users of steel corrosion protection systems.

1.10 The Authority notes that the proposed acquisition of Sperrin's galvanising plants in Ulster and Connacht would allow Galco to complement the activities of its existing plants located in Leinster and Munster and give it greater geographic coverage on the island of Ireland. This approach appears consistent with Galco's purchase of its Waterford plant in 2006.

SECTION 2: THE AUTHORITY'S INVESTIGATION

Introduction

2.1 This section outlines the principal steps taken during the Authority's investigation, both during the preliminary investigation at Phase 1 and then during the full investigation at Phase 2.

2.2 In relation to the Authority's contacts with third parties outlined below, these third parties were selected so as to ensure that the Authority would have a set of responses on which it could rely in characterising competition in the steel corrosion protection systems sector. In some instances, the Authority relied on the undertakings involved to provide suitable names, while in others the Authority used its own sources.[2]

Phase 1: Preliminary Investigation

Contacts with the Notifying Parties

2.3 The Competition Authority was notified of the proposed transaction on 12 June 2007. An economic report by Indecon International Economic Consultants ("Indecon"), commissioned by Galco, was submitted with the notification.[3]

2.4 On 27 June 2007, formal requests for information ("RFIs") were issued under section 20(2) of the Act to Galco and Sperrin, with a deadline of 6 July 2007 for responses. This deadline was later extended to 17 July 2007.

2.5 Under section 19(6)(b)(ii) of the Act, the new "appropriate date" became 18 July 2007. Subsequent to that date, the parties gave full co-operation to the Authority and all outstanding questions were answered to the Authority's satisfaction.

2.6 On 1 August 2007, members of the Mergers Division were given a tour of Galco's Dublin plant. Galco sent a letter on 14 August 2007 providing further information on issues discussed during the visit.

Third Party Submissions

2.7 Three submissions were received by the Authority in relation to the proposed transaction:

- [A supplier of finished steel to the construction industry], made a written submission and was subsequently interviewed by the Authority;
- [A steel fabricator] did not wish to make a written submission, so was interviewed by the Authority; and,
- [A steel fabricator] made a short submission by telephone.

[2] For example, in one instance, the Authority got in touch with a previous contact from another merger investigation. In other instances, contact names were suggested to the Authority during the course of its investigation.

[3] This report was commissioned by Galco and was entitled: *Competition Economics Assessment of Galco Steel Limited's Proposed Acquisition of Sperrin Galvanisers Limited and Sperrin Galvanisers (Irl) Limited* ("Indecon Report").

2.8 All submissions expressed concerns that hot dip galvanising prices would increase post-merger. [The first submission] gave an example of Irish pricing being higher than in Great Britain and stated that, with the already low levels of competition in the Irish market, further consolidation would exacerbate pricing difficulties. [The second and third submissions] did not provide any evidence to this effect.

Investigative Steps

2.9 The Authority also contacted various third parties:

- 21 questionnaires were sent to the largest hot dip galvanising customers of the parties on the island of Ireland, the names having been provided to the Authority by the parties;
- questionnaires were sent to the six other hot dip galvanisers on the island of Ireland (i.e. excluding Galco and Sperrin);
- three steel corrosion protection systems providers (other than hot dip galvanising) were interviewed. These undertakings were taken from a list of 31 businesses provided to the Authority by the parties. The parties stated that these businesses competed with them in the provision of steel corrosion protection systems on the island of Ireland; and,
- interviews were held with an architect, an engineer, a quantity surveyor, the Purchasing Manager [of a public transport body], the ESB Networks Procurement Manager, a consultant in the steel industry, the CEO of Wedge Galvanising Group ("Wedge")[4], and the General Manager of the Galvanizers Association (which covers both the UK and the State).[5]

Phase 1 Determination

2.10 Having considered the notification, the Indecon Report, the additional materials submitted by the parties and also the information provided by third parties, the Authority was unable to form the view at Phase 1 that the result of the proposed acquisition would not be to substantially lessen competition in markets for goods and services in the State.

2.11 As a result, on 15 August 2007, the Authority determined, in accordance with section 21(2)(b) of the Act, to carry out a full investigation under section 22 of the Act.

Phase 2: Full Investigation

Contacts with the Notifying Parties

2.12 The Authority consulted with the parties' representatives, Landwell Solicitors, and provided updates on issues that were relevant to the investigation.

[4] Wedge is a galvanising group based in Great Britain, where it operates 15 plants. For further details, see its website: http://www.wedge-galv.co.uk/.
[5] This is a trade association, which is involved in developing the market for hot dip galvanising. Its activities include providing information and advice to the public and participating in standards development. For further details, see its website: http://www.hdg.org.uk/.

2.13 On 27 August, the Authority sent various questions to the parties and spoke with all participants (representatives of Galco, Sperrin, Sperrin's Northern Ireland lawyers, Landwell, and Indecon) on 28 August to discuss various issues pertinent to the investigation. The undertakings involved responded to the Authority's queries on 3 September 2007.

2.14 The Authority asked additional questions of Galco on 26 September, to which it responded on 1 October 2007.

Third Party Submissions

2.15 At the time of the Authority's Phase 1 determination to proceed to a full investigation, interested parties were invited to make written or oral submissions by no later than 5.00pm on Wednesday, 5 September 2007. No such submissions were received.

Investigative Steps

2.16 During its Phase 2 investigation, the Authority made further contact with third parties:

- 23 questionnaires were sent to steel corrosion protection systems providers, from the list of 31 steel corrosion protection providers provided by the undertakings involved (the questionnaires were not sent to any hot dip galvanisers nor to the three providers already interviewed during Phase 1);
- contacts were made with various third parties in relation to potential market entry; and,
- an interview was held with [a senior Project Manager of a public transport body].

2.17 By the end of Phase 2, the response rates to the three sets of questionnaires sent out by the Authority were as set out in Table 1 below:

Table 1
Authority Phase 1 and Phase 2 Questionnaires, By Category of Market Participant, Number Issued, Number of Respondents and Response Rates

Category of market participant	Number of questionnaires issued	Number of respondents	Response rates
All other hot dip galvanisers on the island of Ireland	6	4 [1]	67%
Major hot dip galvanising customers of the parties on the island of Ireland	21	7	33%
Other steel corrosion protection providers on the island of Ireland from a list provided by the parties (other than hot dip galvanising)	23 (plus three interviews)	5 (plus three interviews)	31% [2]

Notes: 1. The Authority also conducted a brief interview with a fifth hot dip galvaniser, who did not respond to the questionnaire.
2. This rate is obtained by adding the number of questionnaire responses (5) to the number of providers interviewed by the Authority in Phase 1 (3). In these interviews, the Authority used the same questions as in its subsequent questionnaire. Taking these responses into account, the response rate is 8 out of 26, i.e. 31%.

Source: Competition Authority

SECTION 3: BACKGROUND – STEEL PROTECTION

Introduction

3.1 Both parties are involved in hot dip galvanising, a form of corrosion protection for steel. This section provides information on:

- why steel corrosion protection is necessary;
- the main uses of steel treated with a corrosion protection system;
- different types of steel corrosion protection systems;
- the particular steel corrosion protection sector in which the parties are involved – hot dip galvanising on the island of Ireland;
- the route to market for hot dip galvanising; and,
- possible alternative building materials to treated steel.

The Need for Steel Corrosion Protection

3.2 Steel exposed to the elements will corrode and rust in the absence of protection. Thus, steel corrosion protection systems provide protection against corrosion/rust for steel, in particular for steel intended for external use.

3.3 The most common type of steel intended for external use is "mild steel", i.e. steel with a low carbon content and which is easy to shape and fabricate. Medium carbon steel is stronger than mild steel, while higher carbon steel is used for springs and wires and very high carbon steel is used in micro-structures.

Main Uses of Steel Treated with a Corrosion Protection System

3.4 Some of the principal uses of protected steel are as follows:

- street furniture (e.g. lighting columns, signposts, crash barriers, access covers and frames);
- electricity supply (e.g. transformers, towers, enclosures);
- agriculture (e.g. farm gates, buildings, tankers);
- structural steelwork;
- water treatment;
- gates and railings;
- balconies; and,
- general builders' ironwork.

Different Types of Steel Corrosion Protection Systems

3.5 There are five principal steel corrosion protection systems: hot dip galvanising; wet painting; zinc spraying; powder coating; and electrophoretic coating. Based on Galco estimates presented in the Indecon Report,[6] the most common form of steel corrosion protection system is wet painting, accounting for approximately 73% of all steel protection used on the island of Ireland based on tonnage in 2005. The second most popular system was hot dip galvanising, accounting for about 24%, followed by the other steel corrosion protection systems, which accounted for the remaining 3%.[7]

Hot Dip Galvanising

3.6 The galvanising reaction will only occur on a chemically clean surface. The surface must therefore be free from grease, dirt and mill scale. Often, the surface is first degreased using an alkaline or acidic degreasing solution into which the component is dipped. The steel is then rinsed in cold water and dipped in hydrochloric acid at ambient temperature to remove rust and mill scale.

3.7 After further rinsing, the components will commonly undergo a fluxing procedure, which aids the successful galvanising of steel. The articles are dipped in a flux solution - usually about 30% zinc ammonium chloride at around 65-80°C. Alternatively, some galvanising plants may use a flux blanket on top of the galvanising bath.

3.8 The fluxed steel is then immersed in a molten zinc galvanising bath at 450°C. Once the steel heats up to the ambient temperature, an alloying reaction occurs and a series of zinc-iron alloy layers form. These layers provide long-term corrosion protection. The steel is then removed from the galvanising bath, cooled and placed in storage.

3.9 For large jobs, where the article is larger than the size of the galvanising bath, "double-dipping" occurs. This means that the steel is immersed at an angle, once at each end. This ensures that the whole article has been galvanised.

3.10 For aesthetic reasons (e.g. at the behest of an architect, who wants a different colour), some galvanised items are then either powder coated or painted. As it is difficult to get paint to adhere to a galvanised coating, this involves a further process or special paints.

Wet Painting

3.11 In this case, the steel is shot blasted to remove rust and mill scale and is then primed within one hour to prevent oxidisation (rusting). Further protective coats of paint (typically three or more) are then applied to provide corrosion protection.

3.12 Wet painting can be used externally and offers a range of colours. It is a cheaper option than hot dip galvanising and is most suited to products that will not have a long lifespan. Most paints have to be

[6] Indecon Report, Section 2.6.3, p.45.
[7] These percentages are based on figures given for the island of Ireland only, not for "imported" steel corrosion protection systems. The parties estimated that imported steel corrosion systems accounted for 7% of all steel corrosion protection systems. The Authority did not have the data to conduct a percentage breakdown of the different types of imported systems.

redone in about 10 years, however, very high quality paints (which are more expensive) last longer. The cost of paint is related to the cost of oil, so this has been increasing recently as the price of oil reached new highs. Paint is also labour-intensive, so as the cost of labour has gone up, so has the cost of paint. These are different economic drivers to the price of hot dip galvanising.

3.13 Steel fabricators often wet paint themselves, which removes transport times and costs from the equation. However, if various paint coats are needed, this can mean that a lot of space is required, in order to let the coats dry. This can also be a time-consuming process.

Zinc Spraying

3.14 Here, the steel is shot blasted to remove rust and mill scale and then several coats of liquid zinc-rich paint are applied to provide corrosion protection. One of the most common brands of zinc spraying is known as Zinga.

3.15 In hot dip galvanising, the steel product is dipped into molten zinc and a chemical reaction takes place, meaning the coating is molecularly bonded. However, with zinc paint, there is no chemical reaction and it cannot be guaranteed to give the same service life or toughness as hot dip galvanising. Such guarantees are often important to customers.

Powder Coating

3.16 With powdercoating, the steel is first given a fine shot-blast or immersed in acid baths to clean and etch the surface. It is then given an electrical charge and sprayed with dry paint in a powder form. The powder clings to the charged metal and is then baked in an oven to form a protection system.

3.17 The Authority learned during its investigation that powder coating is not a coating that can be used for protection externally, unless put on top of galvanising for aesthetic reasons. Therefore, it is not used for the same purposes as hot dip galvanising.

Electrophoretic Coating

3.18 To place an electrophoretic coating on the steel, it is immersed in a series of acid baths to remove rust and mill scale and is then immersed in an electrically charged primer, which seals the surface. The steel is then powder coated to provide corrosion protection.

3.19 This is often used in the automotive industry, where similar parts are pulled through a tank. It is not as durable as hot dip galvanising and also does not appear to be widely used for the same purposes as hot dip galvanising.

Hot Dip Galvanising on the Island of Ireland

Location of Hot Dip Galvanising Plants

3.20 In total, there are 11 hot dip galvanising plants on the island of Ireland, of which six are in the Republic of Ireland and five are in Northern Ireland.

3.21 The Authority was informed of their locations as follows:

- Galco (Dublin, Cork and Waterford);
- Sperrin (Tynagh, Co. Galway and Draperstown, Co. Derry);
- Irish Pioneer Works (Cork);
- Shannonside Galvanising (Drombanna, Co. Limerick);
- Silverwood, (Craigavon, Co. Armagh);
- Northwest Galvanising (Eglinton, Co. Derry);
- NK Coatings (Mallusk, Co. Antrim); and,
- Ultra Building Products (Newtownstewart, Co. Tyrone).

3.22 Map 1 below provides an illustration of the locations of these plants.

Map 1
Locations of Hot Dip Galvanising Plants on the Island of Ireland, 2007

Source: Competition Authority

Hot Dip Galvanising Industry Standard

3.23 The industry standard in the Republic of Ireland for hot dip galvanising of steel is I.S. EN ISO 1461:1999, which is the same as the British standard (used in Great Britain and Northern Ireland), B.S. EN 1461:1999.

Route to Market

Specification of a Steel Corrosion Protection System

3.24 In a large construction-related project, firstly, the project (involving external/structural steel that will need to be protected against corrosion) is commissioned by a client, such as a property developer. The project will be designed by an architect. An engineer details the steelwork and specifies the steel corrosion protection system to be used, in consultation with the architect. A quantity surveyor is also consulted in relation to materials costings. The quantity surveyor then draws up a detailed bill of quantities and issues tender documents.

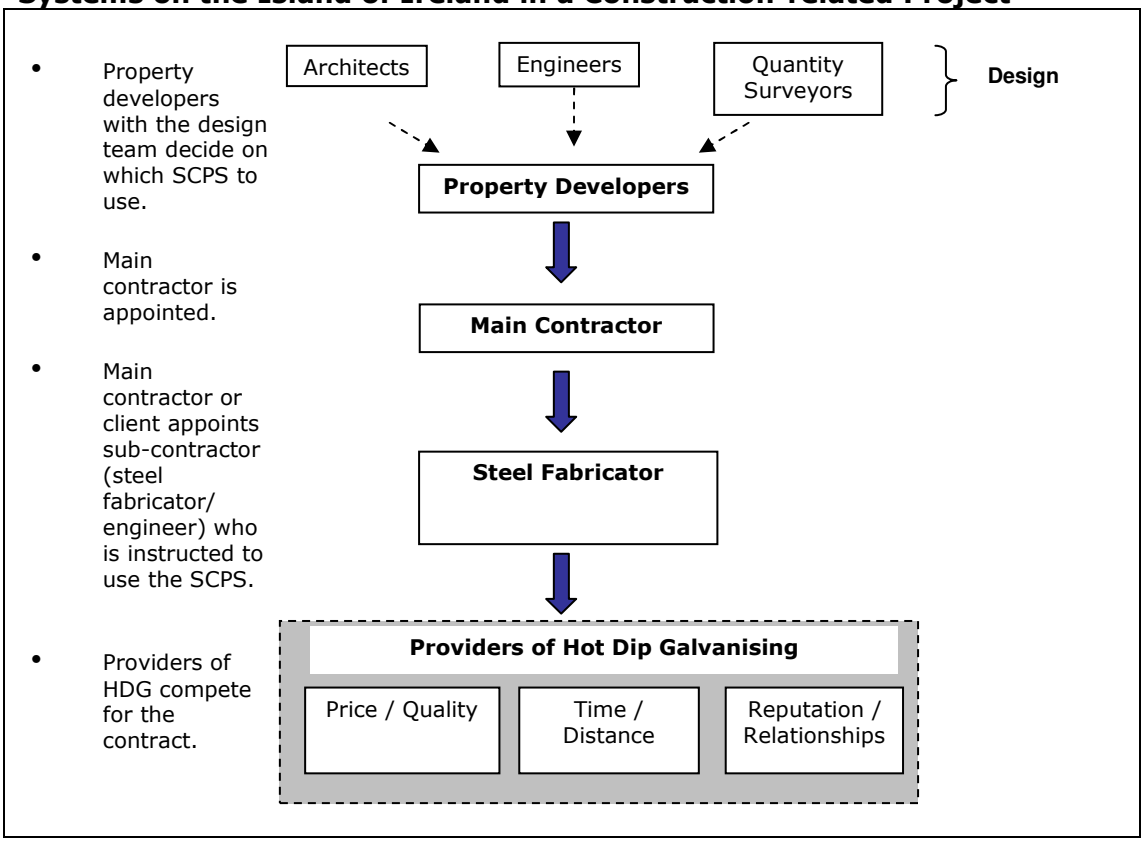
3.25 Once a contract is awarded to a main contractor, a sub-contractor is appointed to fabricate and erect the steelwork. The sub-contractor is appointed either as a nominated sub-contractor by the client directly, or by the main contractor. The sub-contractor chooses what type of steel corrosion protection provider to use, based on the specification provided by the client/engineer/architect.

3.26 The steel corrosion protection provider receives the steelwork from the fabricator, then coats it. Some fabricators are also involved in steel corrosion protection (e.g. wet painting) and if possible, they will self-supply.

3.27 For smaller projects, the specification as to the method of steel corrosion protection to be used will come directly from the client to the steel fabricator.

3.28 For some public sector bodies such as the ESB and the Department of Agriculture, Fisheries and Food, there are prior written specifications as to the type and standard of steel corrosion protection system to be used for various items.

Figure 1
Illustrative Supply Chain in the Provision of Steel Corrosion Protection Systems on the Island of Ireland in a Construction-related Project



Notes: SCPS = steel corrosion protection system; HDG = hot dip galvanising.

Source: Competition Authority

When to put on a Galvanised Coating

3.29 A finished steel product to be galvanised will in many cases be a larger and more unwieldy item than its original individual components. However, rather than first galvanising the components and then welding them together, galvanising normally takes place after the steel article has been fabricated, as the coating could be damaged by cutting or welding during fabrication.

3.30 However, once a galvanised coating is applied, one advantage is that, because of the action of zinc, localised flaws tend to be self healing and have little effect on the life of the galvanised coating. For larger areas of damage, this protection prevents the sideways creep of e.g. rust.

Transport to and from the Galvanising Plant

3.31 There are four principal methods by which galvanising plants receive articles to be galvanised from steel fabricators:

- self delivery – the customer uses his own transport or a courier/haulage company to deliver and collect the items to be galvanised;

- individual collection and delivery - the galvanising plant will send a collection lorry to and from an individual fabricator who can fill the lorry with his products. This is for larger loads;

- milk runs – the galvanising plant sends out a lorry to collect and deliver items in a particular area from smaller, lower volume customers, who would not have enough items to fill a lorry. The galvaniser has a pool of customers in an area, who he will telephone in advance to see if they have products to be collected in a given week. Sometimes, other fabricators in an area will also see the galvaniser's lorry go past and will telephone the galvaniser looking for space on the lorry. We were informed by Galco that its milk runs generally cover a radius of 90 miles, which its experience has shown to be the distance that will allow a truck to return on the same day. Discussions with other galvanisers have broadly confirmed the parties' assessment of how milk runs work; and,

- depots – either the galvaniser or one of his customers will operate a depot, at a distance from the galvanising plant. Customers can then self-deliver items to the depot, or the galvaniser can operate a lorry to collect and deliver products in the local area. Loads are then brought from the depot to the galvanising plant.

3.32 As steel products must be fabricated before being galvanised, as outlined in paragraph 3.29 above, they are often bulky and heavy, and transport times and costs are therefore factors in steel fabricators' decisions about which galvanising plant to use. As such, they tend to use their nearest galvanising plant, except if they receive cheaper prices/better service elsewhere, or their local galvaniser has insufficient capacity or a bath of insufficient size for their needs.

Possible Alternative Building Materials

3.33 In certain cases, according to the Indecon Report,[8] one or more of the following building materials may be used instead of steel treated with a steel corrosion protection system:

- Pre-galvanised steel (e.g. for farm accessories);

- Stainless steel (e.g. for lighting columns);

- Aluminium (e.g. for sign posts);

- Ductile iron (e.g. for access covers and frames);

- Glass reinforced plastic (e.g. for balconies);

- Concrete (e.g. for crash barriers); and,

- Timber (e.g. for farm gates).

[8] Indecon Report, p.9. See also Indecon Report, pp. 80-90 where further discussion of possible alternative building material is presented.

SECTION 4: RELEVANT PRODUCT AND GEOGRAPHIC MARKETS

Introduction

4.1 In this section, the extent of the product and geographic markets are considered. The views of the undertakings involved, information provided by third parties and the views of the Authority are discussed.

4.2 In considering whether a separate product or geographic market exists, the Authority applies the Small but Significant Non-transitory Increase in Price ("SSNIP") Test (also known as the 'hypothetical monopolist' test).[9] The SSNIP test in merger analysis applies a price increase of between 5-10% "above the prevailing level."[10] In some instances, the prevailing price will be the competitive price, in others a price in excess of the competitive level.

4.3 As the Authority received only a small amount of internal documentary evidence from the undertakings involved, which was of limited utility in its investigation, it is relying to a greater extent than in previous merger investigations on information obtained from third parties in the industry and on submissions prepared by the parties at the Authority's request. Details of the third parties from whom information was received, including customers, competitors, professionals and other industry participants, are given in Section 2 above.

Relevant Product Market

Submissions of the Undertakings Involved

4.4 The parties contended that the relevant product market encompasses:

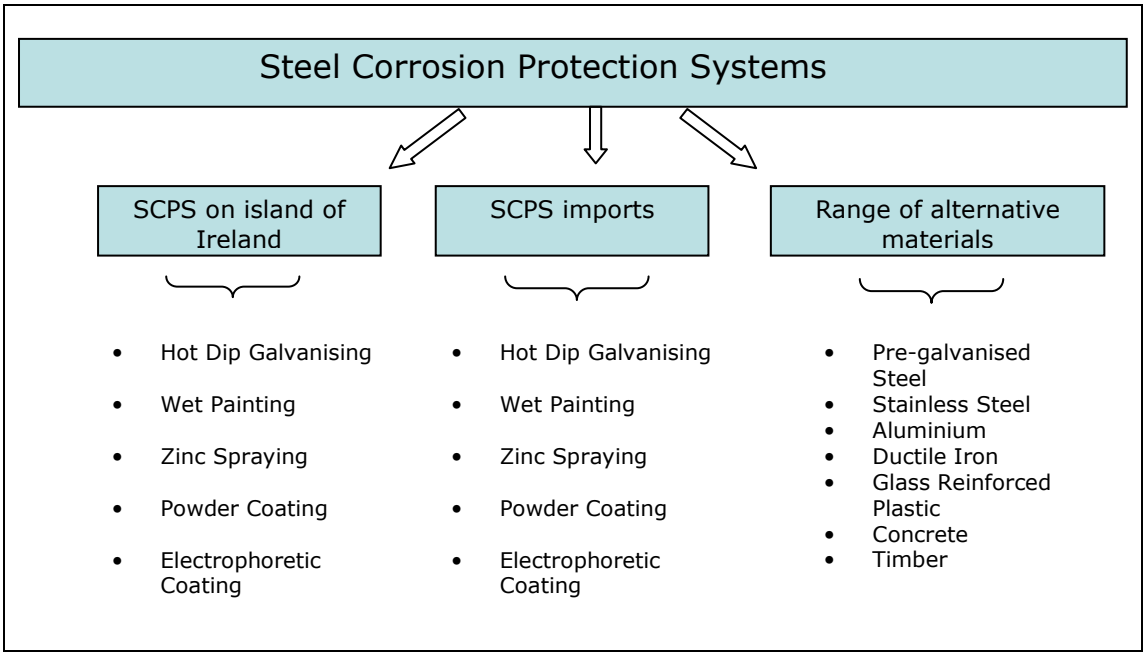
- all steel corrosion protection systems provided by suppliers on the island of Ireland (including hot dip galvanising, painting, powder coating, zinc coating etc);
- steel treated with a steel corrosion protection system outside the island of Ireland and supplied to customers within the island in a finished state;[11] and,
- a range of building materials such as aluminium, glass reinforced plastic and stainless steel, which are substitutable with steel corrosion protection systems in that they fulfil the same functions as steel treated with a steel corrosion protection system.

[9] The SSNIP test asks whether a hypothetical monopolist of product A would be able to permanently increase its price by 5-10%. If a sufficient number of consumers respond to the price increase by purchasing another product, say product B, then it is appropriate to include product B in the same relevant market as product A. The test is then reapplied to a hypothetical monopolist of both products A and B and asks if the hypothetical monopolist could profitably increase the price of product C. The test is then reapplied by including product C with products A and B, if appropriate. The test is iteratively applied until a hypothetical monopolist of a group of products could profitably increase the price of all products in the group by 5-10%. This group of products is defined as the relevant product market. Further details of the test are provided in the Competition Authority's *Notice in respect of Guidelines for Merger Analysis* (*"Merger Guidelines")*, available on its website, at www.tca.ie.

[10] Competition Authority, *Merger Guidelines*, paragraph 2.5.

[11] The parties later stated that they considered "imported" steel corrosion protection systems to encompass both buying-in a finished treated steel product from abroad and also sending steel abroad to be galvanised and then re-importing it.

Figure 2
Elements of the Relevant Product Market as Outlined by the Undertakings Involved



Source: Competition Authority

4.5 A summary of the evidence the parties gave for this view is as follows:

- the various protection systems have the same objective product characteristics and fulfil the same economic functions;
- user specification documents (such as from the ESB, Dept. of Agriculture, Fisheries and Food, National Roads Authority) specify the different forms of steel corrosion protection that may be used in different sectors;
- the way the supply chain operates shows that designers (architects and engineers), main contractors and sub-contractor steel/metal fabricators (who are the main direct users of steel corrosion protection systems) have a wide degree of choice over which system or building material to use in construction, utility and smaller projects;
- graphical inspection of historical price data on steel corrosion protection systems and each of a number of alternative building materials illustrates an appreciably high degree of correlation, suggesting common competitive constraints and a likely common product market comprising steel corrosion protection systems and the substitutable building materials considered in the graphical analysis;
- statistical correlation analysis of historical price data on steel corrosion protection systems and each of a number of alternative building materials reveals a strong degree of price co-movement over time; and,

- cointegration analysis of historical price data on steel corrosion protection systems and each of a number of alternative building materials shows a high degree of price co-trending over time.

The Authority's Investigation of the Relevant Product Market

Introduction

4.6 The Authority first evaluates third party evidence in the context of the various issues raised by the parties' interpretation of the relevant market, namely (i) the importance of the specification of steel corrosion protection systems; (ii) substitutability between steel corrosion protection systems; (iii) survey evidence from customers; (iv) survey evidence from other hot dip galvanisers; (v) survey evidence from other steel corrosion protection providers; and, (vi) alternative building materials.

4.7 The Authority then considers the quantitative analysis contained in the Indecon Report regarding the relevant product market. This includes correlation and cointegration analysis.

Information from Third Parties

(i) The Importance of the Specification of Steel Corrosion Protection Systems

4.8 The Authority received consistent views from the third parties it contacted that the process of deciding on the specification of a steel corrosion protection system is that outlined in Figure 1 above. In other words, the decision as to the materials and/or the steel corrosion protection system to be used is made at the level of the architect/engineer, or the client. It is rare that this decision would be made (or altered) at the level of the main contractor and even rarer, at the level of a sub-contractor. In any event, the main contractor and sub-contractor would have to get approval from the architect/engineer or client to make a change to a specification.

4.9 The Galvanizers Association confirmed this to be the case. Its primary function is to promote the use of galvanising in general among specifiers such as architects and engineers, so that they will specify it in projects they work on. If it is specified, hot dip galvanisers then compete to get this work, not directly from the specifier but from contractors or sub-contractors. The Indecon Report gave examples of Galco contacting specifiers to recommend that they specify galvanising on projects,[12] but this does not seem to be common practice among galvanisers. In addition, this reinforces the conclusion that contractors or sub-contractors further down the supply chain do not have a say in what materials or protection system to use.

(ii) Substitutability Between Steel Corrosion Protection Systems

4.10 It was generally agreed among the third parties contacted by the Authority that hot dip galvanising has properties that differentiate it from other corrosion protection systems. For example, hot dip galvanising has an extremely long life (often exceeding 50 years). If a product is one that is expected to have a long life, galvanising saves on maintenance work and costs, although it is initially more expensive

[12] Indecon Report, pp. 19-21.

than normal quality paintwork. Even if other treatments are technical substitutes, they may not be economic substitutes in relation to products that are required to last a long time. For further examples of the differences between the different corrosion protection systems, see Section 3 above.

4.11 In addition, as outlined in paragraph 3.30 above, the zinc coating corrodes preferentially to provide protection to small areas of steel exposed through drilling, cutting or accidental damage. If the damaged area is larger, this protection prevents sideways creep, which can undermine other coatings such as paint. The benefit was outlined to the Authority by [a specifier] as a major benefit of using hot dip galvanising in crash barriers.

4.12 Clients often require steel products to be guaranteed for up to 20 years. The Authority was informed that the only system that enables this guarantee to be given is hot dip galvanising.

4.13 It was also clear from the Authority's discussions with third parties that in some cases, galvanising is in reality the only corrosion protection option in high salt environments such as coastal areas or for marine usages.

(iii) Survey Evidence: Customers

4.14 In the questionnaires sent to the main customers of the undertakings involved, the Authority asked customers what they would do if faced with a price increase of 5-10% for hot dip galvanising from their current hot dip galvanising supplier. None of the customers stated that they would move to alternative products to steel or use other steel corrosion protection systems.

(iv) Survey Evidence: Other Hot Dip Galvanisers

4.15 When the other hot dip galvanisers were asked who they considered to be their competitors, all named other hot dip galvanisers. None stated their competitors to be providers of other steel corrosion protection systems or alternative building products.

(v) Survey Evidence: Other Steel Corrosion Protection Systems Providers

4.16 As regards the substitutability between the steel corrosion protection system offered by the parties (hot dip galvanising) and the four other steel corrosion protection systems outlined in Section 3 above, the Authority received various information regarding the levels of substitutability between the five different steel corrosion protection systems.

4.17 The parties had provided a list of 31 steel corrosion protection systems providers, who they contended were their competitors. In particular, when naming its top five worldwide competitors, Galco only named one hot dip galvaniser, the remaining four being providers of other systems.

4.18 As outlined in Section 2 above, the Authority interviewed three providers from the list of 31 and received completed questionnaires back from another five ([the redacted phrase relates to their identities]). Without exception, all of these providers informed the

Authority that they only provided these systems for their own in-house steel fabrication activities and did not compete for third party steel corrosion protection business.

4.19 In addition, these providers stated that they considered themselves customers, not competitors, of hot dip galvanising. They informed the Authority that they would self-supply their own protection system unless hot dip galvanising was specified by an engineer/architect/client, or where hot dip galvanising was evidently required, e.g. for a marine environment. In such cases, they would source galvanising from a galvaniser.

(vi) Alternative Building Materials

4.20 As regards the substitutability of building materials such as stainless steel, aluminium, ductile iron, glass reinforced plastic, concrete and timber, third parties stated that although one or more of these may be used for a particular product instead of protected steel, it is not the case that all of these materials are substitutable in all cases for all products. This can be because of cost (e.g. the Authority was informed that stainless steel can be several times more expensive than steel), structural strength, flammability etc.[13]

Quantitative Analysis in the Indecon Report

4.21 As well as evidence from third parties, the Authority also considered the quantitative analysis contained in the Indecon Report concerning the product market. Using graphical, correlation and cointegration analyses, the Indecon Report concludes that hot dip galvanising is likely to be in the same market as "Structural Steel" and "Reinforcing Metal" but not "Basic Metals".[14] The discussion below concentrates on the correlation and cointegration analyses, since these two techniques summarise the information in the graphical analysis.

(i) Correlation Analysis

4.22 Correlation analysis measures the degree to which two variables are associated with one another. If two variables move in the same direction, they are positively correlated, with a maximum value of +1 if they are perfectly co-linear. Hence, if two products are close substitutes, we would expect that their price movements would be positively correlated. If there is little or no relationship, then the value of the correlation coefficient is close to 0.

4.23 Indecon carried out a pairwise correlation analysis between the price series of Galco's hot dip galvanising and three Central Statistics Office ("CSO") price series: "Structural Steel", "Reinforcing Metal", and "Basic Metals"), defined in Table 2 below. The results show a high correlation of over 0.8 between Galco's hot dip galvanising price series and each of the price series "Structural Steel" and "Reinforcing Metal", but a much lower correlation of 0.308 with "Basic Metals".[15] Based on this

[13] As regards pre-galvanized sheet steel specifically, the Authority was informed by the General Manager of the Galvanizers Association that this is used for automotive products such as car bodies, the backs of white goods and in some building products. These products are rarely exposed to the elements.
[14] The results are summarised in Indecon Report, Table 2.8, p. 36.
[15] Indecon Report, Table 2.6, p.34.

result, Indecon suggested that hot dip galvanising is likely to be in the same product market as "Structural Steel" and "Reinforcing Metal".

Table 2
Definitions of the Products/Processes used in the Indecon Report's Correlation and Cointegration Analyses

Product/process	Definition
Hot dip galvanising	A process whereby steel is dipped into molten zinc. This forms an outside alloy layer, which prevents corrosion of the steel.
Structural Steel	Steel products such as columns, beams, channels, angles, sheets/plates, portal and lattice frames, etc.
Reinforcing Metal	Reinforcing bars, reinforcing mesh, universal channels and beams.
Basic Metals	This is the manufacture of basic metals, including the manufacture of basic iron and steel and of ferro-alloys, the manufacture of tubes, other first processing of iron and steel, manufacture of basic precious and non-ferrous metals, and casting of metals.

Notes: The definition of hot dip galvanising is the Authority's own. The other three definitions were provided to the Authority by the CSO. The CSO informed the Authority that the definitions of Structural Steel and Reinforcing Metal are based on representative samples obtained from companies of the products they sell, whilst the definition of Basic Metals corresponds to NACE 27, as defined by *Statistical Classification of Economic activities in the European Community*, Rev. 1.1 (2002). The CSO informed the Authority that the level of detail provided to it by companies does not specify whether any of the products listed under Structural Steel, Reinforcing Metal, or Basic Metals, are hot dip galvanised.

Source: Competition Authority and the CSO

4.24 For correlation analysis to valid there should be good theoretical or *a priori* reasons for the products or services in question to be in the same market. For example, in the instant case it would, in view of the discussion above, be quite reasonable to test the proposition that the five steel protection systems are in the same market, since they are to varying degrees substitutes for each other. Equally it could be argued that the other building materials mentioned in paragraph 3.33 above are part of a larger market that includes steel treated with a steel corrosion protection system, since for some end uses these products may be substitutes.[16] It appears that price series are not available for

[16] As noted in paragraphs 3.24 to 3.28 above, it is the developer or client that makes the decision as to the building material to be used to meet a particular demand or purpose. Thus the developer will consider the overall cost of each alternative building material in comparison to steel treated with a particular steel corrosion protection system. It is the overall cost of each of these products that the developer will consider, not the separate components (e.g. hot dip galvanising).

the five steel protection systems[17] or for more than a subset of the alternative building materials.

4.25 In any event, Indecon used the price series for Galco's hot dip galvanising in a series of pairwise correlations with "Structural Steel", "Reinforcing Steel" and "Basic Metals". Hot dip galvanising involves a process of protecting steel from corrosion, while "Structural Steel", "Reinforcing Metal" and "Basic Metals" are uses to which steel/metal is put. The hot dip galvanising *process* is not substitutable for the steel or metal *product*. Thus it is not clear that there are sound *a priori* reasons for considering that the process of hot dip galvanising and the three products are in the same market. Hence it is difficult to interpret the resulting correlation coefficients as testing the proposition that there is a wider market than hot dip galvanising including alternative building materials.

4.26 Nevertheless even if there were good *a priori* reasons for assuming that the process and the products were in the same market, the correlation coefficients presented in the Indecon Report may be spurious[18] and hence insufficiently robust to be relied on. For correlation analysis to be valid, the price series must be stationary (i.e., have a constant mean and variance). If the price series is non-stationary then the correlation may be invalid. Indecon do not report any tests for stationarity and visual examination of the four price series used suggests that they are not necessarily stationary.[19]

(ii) Cointegration Analysis

4.27 Cointegration analysis is a technique that overcomes some of the shortcomings of correlation analysis in delineating relevant markets.[20]

4.28 The Indecon Report correctly states that "if two price series are cointegrated, they will tend to move together over time, suggesting that the products are in the same market".[21] The same four price series are used in the cointegration analysis as in the correlation analysis. Thus despite that fact that the cointegration analysis appears to be correct, the same problem arises as in the case of the correlation analysis: there do not appear to be good *a priori* reasons for considering that hot dip galvanising is in the same market as "Structural Steel", "Reinforcing Steel" and "Basic Metals."

4.29 In sum, on the basis of Indecon's correlation and cointegration analysis, the Authority is unable to rely on its conclusion that the relevant market is wide enough to include certain alternative building materials, in addition to hot dip galvanising.

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[17] In correspondence with the parties, Galco stated in a letter dated 1 October 2007 that "it does not have any statistical or hard data" on wet paint systems which, as noted in paragraph 3.5 above, is the leading steel corrosion protection system.

[18] For further discussion see S. Bishop & M. Walker, 2002*, The Economics of EC Competition Law: Concepts, Application and Measurement,* 2nd Edition. London: Sweet & Maxwell ("Bishop & Walker"), pp. 378-394. Spurious correlation occurs when two series seem to be correlated but in fact they are not. The correlation in such a case is a 'coincidence' and is not the result of any interrelation between the two products or price series.

[19] The graphical analysis is presented in the Indecon Report, Figures 2.1 to 2.3, pp. 30 – 32.

[20] Bishop & Walker pp. 390-391. Cointegration is an econometric technique that tests for a statistically significant relationship between two time series. If two or more time series are themselves non-stationary, but a linear combination of them is stationary, then the series are said to be cointergated.

[21] Indecon Report, p. 34.

Conclusions of the Authority on the Relevant Product Market

4.30 As a result of its investigation the Authority concluded that the relevant product market is hot dip galvanising, because:

- from a demand perspective, the use of steel protected by hot dip galvanising is specified by clients, architects or engineers. Once this decision is made, the Authority's investigation has shown that there is normally no more substitution between products or corrosion protection systems. If there is substitution in an individual case, it has to be decided at the specifier level;

- none of the hot dip galvanising customers of the undertakings involved stated that they would switch to other materials or steel corrosion protection systems in response to a 5-10% increase in the price of hot dip galvanising from their current supplier;

- third party hot dip galvanisers see themselves in competition with other hot dip galvanisers, not other steel corrosion protection systems providers. In addition, other steel corrosion protection providers do not see themselves as being competitors of hot dip galvanisers; and,

- the Authority's investigation established that substitutable building materials or alternative steel corrosion protection systems cannot in all cases be technical or economic substitutes for hot dip galvanising, due to differing costs, uses and performance levels. In addition, hot dip galvanising has particular performance properties such as its durability and life to first maintenance, which make it the only choice for certain usages.

Relevant Geographic Market

Introduction

4.31 The Authority first evaluates survey evidence from other hot dip galvanisers and second, survey evidence from hot dip galvanising customers of the parties. In order to ascertain the extent of the geographic market, the Authority examines under each of these headings whether (i) the market is the island of Ireland (and discusses the strong indications of regional effects evident from its investigation). The Authority considers further (ii) whether the market should be considered wider than the island of Ireland because of competition from "imported" steel corrosion protection systems (see Figure 2 and paragraph 4.4 above).

Submissions of the Undertakings Involved

4.32 The undertakings involved consider that the relevant geographic market is at least that of the island of Ireland, the main reason being that providers of steel corrosion protection systems and substitutable building materials based in the State compete for business in Northern Ireland as well as the State, and *vice versa*.

4.33 The undertakings involved also consider that galvanisers based on the island of Ireland compete with imported steel corrosion protection systems.

Information from Third Parties

Survey Evidence: Other Hot Dip Galvanisers

(i) Evidence Regarding the Market on the Island of Ireland

4.34 The Authority learned from various sources during its investigation that inputs were similar for all hot dip galvanising businesses – labour, zinc (based on the world market price), electricity, etc. Therefore, assuming all firms are equally efficient, transport costs are a major differentiating factor in relation to price.

4.35 The hot dip galvanisers who responded to the Authority's questionnaire all stated that although it was possible for them to travel anywhere on the island of Ireland for business, transport costs (in particular as steel is such a bulky and heavy product and must be fabricated before it is galvanised) and time factors meant that, in reality, they do not travel a certain distance beyond their plants, except for large loads.

4.36 The Authority was informed that, for the above reasons, galvanisers based in Ulster do not in general currently travel for deliveries below a notional, approximate, Dublin/Galway line. In addition, galvanisers in Munster do not in general travel far above this line either. When asked who their competitors were, the galvanisers tended to list only those on the same side of this notional "line", as themselves.

4.37 The galvanisers also stated that, for self-delivered items, customers tend to use the plants that are nearest to them, as cost and time are also relevant factors for self-delivery.

4.38 The Chairman of Wedge, which is based in Great Britain, stated that in his experience, because galvanising work is done on nearly-finished items that are either sent or collected, this produces a limit of 50-100 miles for economic transport. Over that distance, going to a nearer galvaniser would be cheaper.

4.39 [This redacted paragraph relates to evidence suggesting that certain hot dip galvanisers see the market as wider than regional].

4.40 The only plants not based in Ulster or Munster are Sperrin Tynagh (Connacht) and Galco Dublin (Leinster). Both of these plants are located in the environs of this notional "line". Galco stated to the Authority that it is prepared to travel anywhere on the island of Ireland to collect steel, as long as the load is at least 10-15 tonnes. Its milk runs generally cover a radius of about 90 miles from its Dublin and Cork plants in order to allow the trucks to depart and return on the same day. Sperrin Tynagh's coverage area is a radius of approximately 90 miles, although it travels up to 120 miles to collect a full load. In addition, some of its customers in Connacht operate depot facilities.

(ii) Evidence Regarding Imports from Outside the Island of Ireland

4.41 As regards competition from "imported" hot dip galvanising, in particular from Great Britain, hot dip galvanisers on the island of

Ireland do not see galvanisers based in Great Britain or other countries as being among their competitors.[22]

Survey Evidence: Customers

(i) Evidence Regarding the Market on the Island of Ireland

4.42 The hot dip galvanising customers of the undertakings involved were given a list of the other galvanisers on the island of Ireland, were asked whether they would consider each to be a potential supplier and asked to give reasons for their answer.

4.43 In all the responses received by the Authority, the customers gave distance/logistics as a reason not to consider the plants farthest away from themselves to be potential suppliers. However, this does not necessarily mean that customers would be unwilling to use such plants. For example, one customer stated that he did not consider a certain distant plant to be a potential supplier as, although he would be willing to use its services, it did not send trucks in his direction. In certain cases, customers had not heard of some plants distant from them.

4.44 For plants where distance was less of an issue, the relevant factors for customers in choosing a plant were price, capacity, quality of service and turnaround times.

(ii) Evidence Regarding Imports from Outside the Island of Ireland

4.45 Although some larger customers had used galvanisers based in Great Britain for once-off jobs in certain circumstances, customers considered that using such galvanisers was not economically feasible due to transport costs (in particular as steel is such a bulky and heavy product and must be fabricated before it is galvanised), increased turnaround times and the necessity for them to maintain adequate stock levels. Customers highlighted that a fast turnaround time is important to their own clients in order not to delay work on site.[23] In addition, some customers reported that they would be placed at the "bottom of the queue" in the UK, whilst at home, as regular customers, there would be more scope for them to request work to be expedited.

4.46 The General Manager of the Galvanizers Association and the Chairman of Wedge informed the Authority that galvanisers based in Great Britain do not see the island of Ireland as part of their market. The Authority was also informed that the experience of Wedge was that very little work came to them from the island of Ireland, due to transport costs and logistics issues. In addition, there has been no entry by Great Britain-based galvanisers on the island of Ireland, despite the growth of the Irish market in recent years. This suggests that galvanisers based in Great Britain see the island of Ireland as being a separate and distinct market.

[22] The parties estimated that imported steel corrosion protection systems accounted for 7% of all steel corrosion protection systems. The Authority did not have the data to conduct a percentage breakdown of the different types of imported systems.

[23] In particular, the Authority received pricing data from [ ], showing that prices in the UK were cheaper than quotes it had received on the island of Ireland. Nevertheless, [ ], it did not consider Great Britain to be a feasible economic option due to transport costs and turnaround times.

Conclusions of the Authority on the Relevant Geographic Market

4.47 The Authority's conclusions on the extent of the geographic market are as follows:

- the evidence shows that galvanisers can (and do) take work from all over the island of Ireland and operate to the same standards. Details were given to the Authority showing that certain galvanisers [see the market as wider than regional]. In addition, from a pricing perspective, if a galvaniser in one part of the country increases prices, this would make it more attractive for his customers to choose galvanisers from other areas, as transport costs would be less of an issue;

- however, there are also significant regional effects, as, due to the bulky nature of the finished products to be galvanised, transport costs as well as turnaround times become major differentiating factors. This leads customers to choose the plants nearest to them (except in the case of large loads or products, where capacity issues may be more important);

- the Authority does not find it necessary to conclude on whether the market is the island of Ireland or regional in nature, as even on the basis of an analysis of narrower regional segments (see Sections 6 and 7 below), the Authority's conclusion on the proposed acquisition would not be affected; and,

- the Authority does not consider that the market is wider than the island of Ireland, as, due principally to the increased transport costs and turnaround times to deliver bulky finished products from the island of Ireland to Great Britain and back, neither galvanisers nor customers consider this solution to be economically or practically feasible.

SECTION 5: MARKET STRUCTURE

Introduction

5.1 Market structure can be characterised as the number and size distribution of firms. The initial impact of any merger is felt on market structure, as two firms pre-merger become one firm post merger.

5.2 In this section, first, the methodologies for measuring market concentration are outlined. Then, the two means of assessing market concentration are considered. The market structure pre-merger is outlined. The market shares of the parties and their competitors pre-merger are then set out. Finally, the increase in market concentration from pre- to post- merger levels is calculated and evaluated.

Methodology for Measuring Market Concentration

5.3 The market as defined in Section 4 above is the market for hot dip galvanising on the island of Ireland (with strong regional biases, the competitive effects of which will be considered further in Sections 6 and 7 below).

5.4 In assessing market shares, a relevant measurement parameter must be selected. The Authority's *Merger Guidelines* identify three possible parameters:

- Volume, measured by the number of units supplied;
- Capacity, measured by the maximum possible volume; and
- Value, measured by revenue.

5.5 The estimated volume shares (measured by tonnes of steel treated) and capacity shares (measured by bath size) will be set out below.

5.6 As regards value, more than one market participant indicated to the Authority that turnover was not a reliable indicator of a company's performance on this market, due to the variation in the prices of inputs (principally zinc) over the last few years. Galvanisers incorporate these fluctuations into their pricing in different ways. For example, regarding zinc, some galvanisers have a zinc surcharge, while some incorporate the zinc cost into their base price. In addition, galvanisers increase/lower their galvanising surcharges/prices at different times in response to these fluctuations. As regards transport costs (which vary depending on distance and load), some galvanisers only accept self-delivered items, some incorporate transport charges into their pricing and some charge transport separately. Therefore, due to the difficulty of establishing common pricing parameters, market share measurements by value will not be made.

Market Structure Pre-merger

5.7 Galco is the largest galvaniser on the island of Ireland, with four baths in total (two in Dublin, one in Cork and one in Waterford) and the largest volumes. Silverwood, based in Northern Ireland, has the largest bath on the island and is a strong competitor. Sperrin, with its two

baths, appears to process roughly [ ] to Silverwood (based on the estimates of the parties).

5.8 Other galvanisers are IPW and Shannonside (both based in Munster) and NK Coatings, Ultra and Northwest (all based in Northern Ireland).

5.9 Sperrin is a relatively new market entrant, having opened its Draperstown bath in 1997 and its Galway bath in 2004. Shannonside has also been in business since 1997. Northwest is the newest market entrant, having commenced business in 2006.

Market Shares Pre-merger

5.10 Table 3 is based on the various estimates received by the Authority of the volume of steel (in tonnes) galvanised by market participants. Three sources of these estimates are used: the estimates of the undertakings involved; figures supplied by [ ]; and, self-reported figures supplied to the Authority by market participants who were contacted. All of these estimates give similar, though not identical, market share figures for each galvaniser.

Table 3
Estimated Market Shares, Hot Dip Galvanising, Island of Ireland, Measured in Tonnage, 2006/2007 [1]

Companies	**Parties' estimates**	**Figures from [ ]**	**Companies self-reported**
	(%)	(%)	(%)
Galco	[40-50]	[ ]	[30-40]
Sperrin	[10-20]	[ ]	[10-20]
IPW	[0-10]	[ ]	[ ]
Shannonside	[0-10]	[ ]	[ ]
Silverwood	[10-20]	[ ]	[ ]
NK Coatings	[0-10]	[ ]	[ ]
Ultra	[0-10]	[ ]	[ ]
Northwest	[0-10]	[ ]	[ ]
Total	100	100	100

Notes: 1. The market share figures have been rounded to the nearest whole number. In some cases, where figures were not provided to the Authority from one source, the average of the other two sources is used. When, for an individual company, only one set of figures was provided to the Authority, this set is used in all the columns.

Source: Competition Authority

5.11 Table 4 is based on the estimated bath size of the market participants. The Authority received information on bath sizes from three sources: the undertakings involved; from the Galvanizers Association website; and from market participants themselves. All of these estimates give identical market share figures for each galvaniser.

Table 4
Estimated Market Shares, Hot Dip Galvanising, Island of Ireland, Measured by Capacity (Bath Size), 2006/2007 [1]

Companies	Parties' estimates	Galvanizers Association figures	Companies self-reported
	(%)	(%)	(%)
Galco	[30-35]	31	[30-35]
Sperrin	[10-15]	13	[10-15]
IPW	[5-10]	7	[5-10]
Shannonside	[5-10]	9	[5-10]
Silverwood	[15-20]	16	[15-20]
NK Coatings	[5-10]	9	[5-10]
Ultra	[5-10]	7	[5-10]
Northwest	[5-10]	8	[5-10]
Total	100	100	100

Notes: 1. These figures have been rounded to the nearest whole number. In some cases, where capacity figures were not provided to the Authority from one source, the average of the other two sources is used. In two instances, the Galvanizers Association figures were shown by the other two sources not to reflect the current situation, and are corrected.

Source: Competition Authority

5.12 Both tables show consistently that two of the leading players in the market are involved in the proposed acquisition. Based on Table 3, the leading market player (Galco) is merging with the joint second largest player (Sperrin). Based on Table 4, the leading market player (Galco) is merging with the third largest player (Sperrin).

The Impact of the Merger on Market Concentration

5.13 Not surprisingly when two leading firms merge in a concentrated market, there is a substantial increase in concentration, as illustrated in Table 5 below.

5.14 The *Merger Guidelines* set out a series of thresholds that can be used as an approximate method of assessing the impact of mergers on market concentration. The proposed merger would fall in Zone C, since the post-merger Herfindahl-Hirschmann Index ("HHI"), no matter which market share figures are used, is greater than 1,800 and the increase in concentration, or delta, is greater than 100. Merger cases falling in Zone C are characterised by the *Merger Guidelines* as those that occur in already highly concentrated markets and are more usually those that raise competition concerns.

Table 5
The HHI, Post-merger, Market Shares Measured in Tonnage and Capacity, Island of Ireland, 2006/2007

		Parties' estimates	Galvanizer Association [and other] figures	Companies' self-reported
Tonnage	**HHI**	3,645	3,389	3,223
	Delta	1,279	1,174	1,098
Capacity	**HHI**	2,489	2,493	2,486
	Delta	784	786	783

Note: These calculations were made on the basis of unrounded market share figures.

Source: Competition Authority

Conclusion

5.15 The fact that a merger falls into Zone C does not necessarily mean that it will substantially lessen competition. As the Authority's *Merger Guidelines* point out, factors that affect whether a merger in Zone C will raise competition concerns include the closeness of competition and whether there are low barriers to entry. It is to these and other issues that attention is turned in Section 6 below.

SECTION 6: COMPETITIVE ANALYSIS

Introduction

6.1 This section analyses several market characteristics that are likely to prove decisive in deciding whether or not the proposed merger will lead to a significant lessening of competition, an issue dealt with in Section 7 below. These characteristics are:

- closeness of competition;
- possibility of entry;
- expansion and capacity;
- imports; and,
- buyer power and switching costs.

These characteristics were those identified by the undertakings involved, by third parties, and by the Authority during the course of its investigation.

Closeness of Competition

6.2 This refers to:

- the degree to which the undertakings involved competed with each other pre-merger; and,
- the extent to which non-merging undertakings constrain the merged entity's ability to raise price.

Degree to which the Undertakings Involved Competed Pre-merger

Locations of Customers

6.3 In order to ascertain the degree to which the undertakings involved competed with each other pre-merger, the Authority first considers the locations of their customers.

6.4 As part of its investigation, the Authority asked the parties to make submissions on the geographical coverage areas of their galvanising plants. These submissions are summarised below. The parties themselves also identified the locations of their 10 largest customers to the Authority, which are shown in Maps 2-4 below.[24] The locations of smaller customers can be identified by examining the routes of the parties' regular milk runs, which are shown in Map 5 below.[25]

[24] In the Indecon Report, Section 2.6.9, p. 58, Galco stated that its 10 leading customers represented over [40-60]% of its sales in 2005/2006. Sperrin stated at p.59 that its 10 leading customers represented at least [20-40]% of its sales over the same period.

[25] As outlined in Section 3, there are several ways in which business is brought to and from a galvaniser – self-delivery by customers, operation by the galvaniser of lorries to larger customers, operation of milk runs to serve smaller customers, and the operation of depots, either by the galvaniser or by one of its customers.

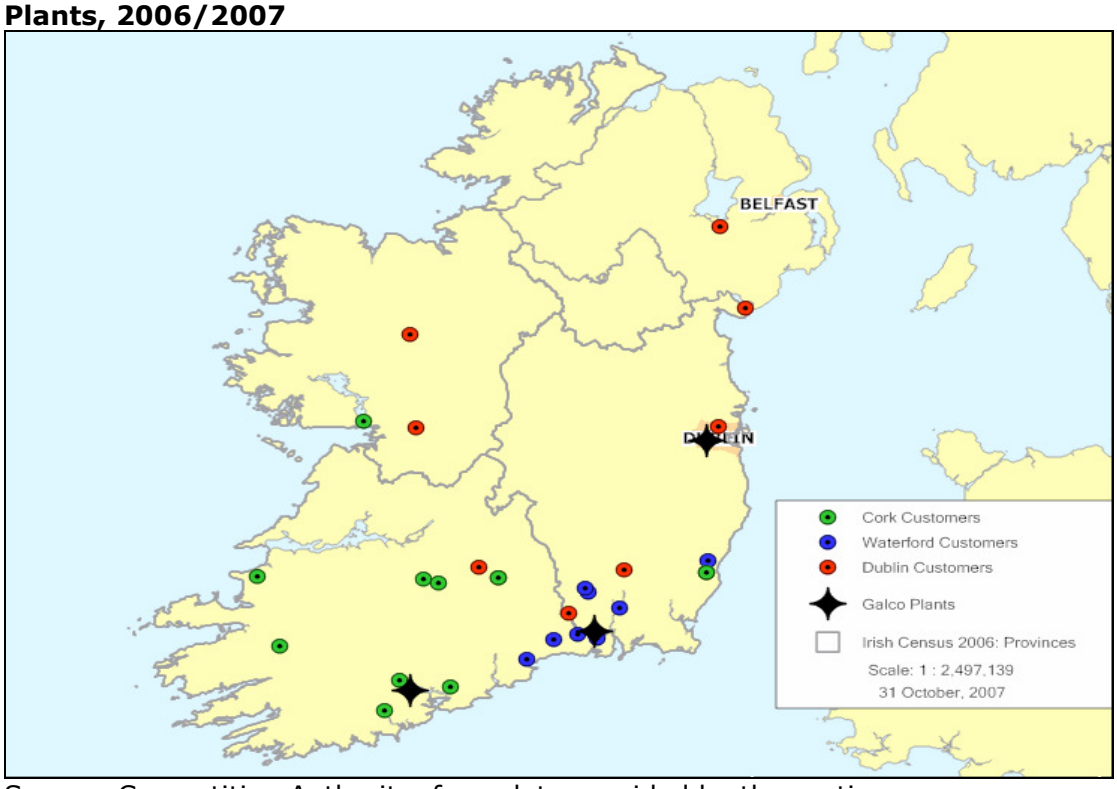
6.5 In its submission, Galco informed the Authority that it does not send out lorries from its Waterford plant. For its Dublin and Cork plants, approximately [ ]% of steel products are delivered and collected by customers and [ ]% are collected and delivered by Galco. Galco will travel anywhere on the island of Ireland to collect loads of between [ ] tonnes. However, its milk runs generally cover a radius of [80-100] miles, in order for its lorries to be able to depart and return on the same day. Its milk runs are operated roughly on a county basis.

6.6 Sperrin informed the Authority that for Sperrin NI, [ ]% of steel products are delivered and collected by customers and [ ]% are collected and delivered by Sperrin. Sperrin NI covers a radius of approximately [60-80] miles, but will travel further to collect a full load (a 75-80 mile radius from Draperstown covers all of Ulster). The furthest milk run points from Sperrin NI are [60-80] miles distant.

6.7 For Sperrin Tynagh, [ ]% of steel products are delivered and collected by customers and [ ]% are collected and delivered by Sperrin. Sperrin Tynagh's coverage area is a radius of approximately 90 miles. However, it will travel up to 120 miles to collect a full load. The furthest milk run points from Sperrin Tynagh are about 100 miles distant. In addition, a number of Sperrin customers in Connacht, such as [ ], [ ] and [ ], operate a depot facility for other customers in their vicinity.

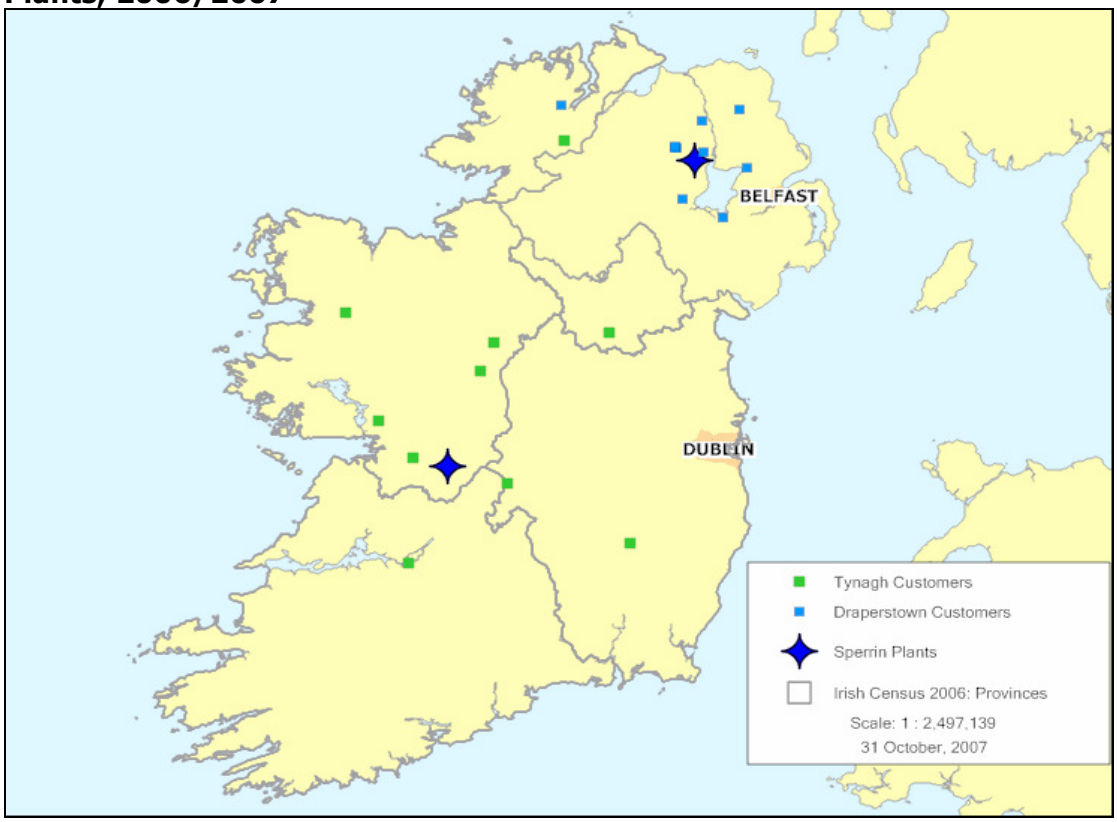
6.8 In order to capture the geographical scope of the activities of both parties in relation to both large and small customers, the Authority asked the parties to provide the locations of their top 10 customers for each plant and to provide the routes of their regular milk runs for each plant. The results of this exercise are set out in Maps 2-5 below.

Map 2
Top 10 Customers for Each of Galco's Dublin, Cork and Waterford Plants, 2006/2007



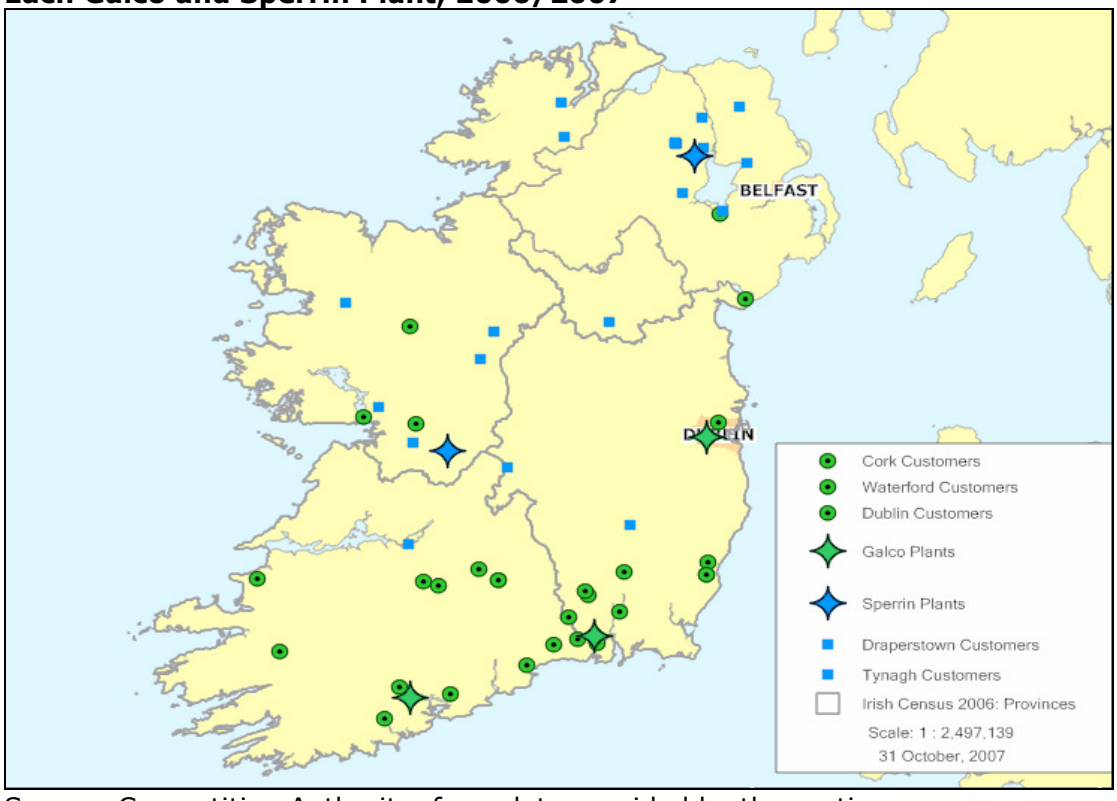
Source: Competition Authority, from data provided by the parties

Map 3
Top 10 Customers for Each of Sperrin's Tynagh and Draperstown Plants, 2006/2007



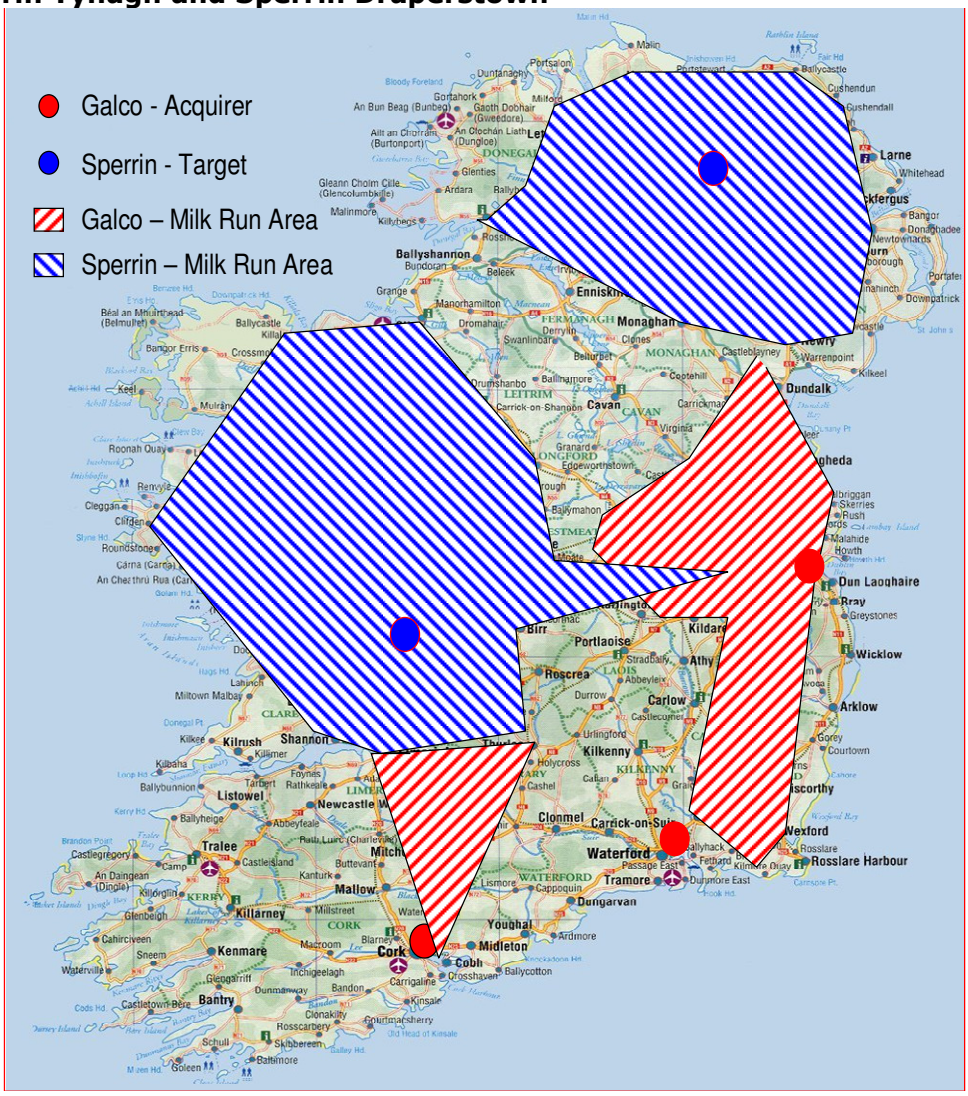
Source: Competition Authority, from data provided by the parties

Map 4
Amalgamation of Maps 2 and 3, Showing the Top 10 Customers of Each Galco and Sperrin Plant, 2006/2007



Source: Competition Authority, from data provided by the parties

Map 5 [the exact routes have been redacted]
Current Locations of the Milk Runs of Galco Dublin, Galco Cork, Sperrin Tynagh and Sperrin Draperstown



Notes: This map shows the locations of the parties' milk runs, but not their frequency. Some of the milk runs shown occur once a week, while others occur more often.

Source: Competition Authority

6.9 These maps show that the customers of each party are located in differing geographic areas. Therefore, it is reasonable to conclude that the activities of the parties are concentrated in different geographic areas and that there is a limited amount of competition between them. This analysis applies in particular to local runs, less so for large loads, where the parties appear willing to travel somewhat longer distances.

Regional Presence of each of the Undertakings Involved

6.10 The Authority previously found that there were strong regional effects in the market for hot dip galvanising on the island of Ireland. It now examines the closeness of competition between the parties, by analysing the parties' estimates of their respective shares of regional tonnage volumes, as set out in Table 6 below. The selection of regions was based on the Authority's investigation, which showed that these appeared to be a reasonable approximation of delivery patterns, e.g.

based on the milk runs of the parties and interviews with other hot dip galvanisers.

6.11 As Leinster is the largest market by tonnage and as various galvanisers told the Authority that they generally deliver/collect as far as the environs of a notional Dublin/Galway line due to transport costs and logistics, the Leinster information will be divided into North Leinster[26] and South Leinster[27] to obtain a more accurate idea of the presence of the parties in each of these areas.

Table 6
Estimated Market Shares, Galco and Sperrin, Hot Dip Galvanising, Island of Ireland Regional Breakdown, Based on Tonnage, 2006

Region	**Percentage of the total regional tonnage volumes represented by each of the undertakings involved**	
	Galco	**Sperrin**
Ulster	[10-15]%	27%
Connacht	11%	38%
Munster	47%	4%
Leinster	75%	4%
North Leinster	*69%*	*4%*
South Leinster	*78%*	*5%*

Source: Competition Authority, based on the parties' estimates of regional tonnages

6.12 It is clear from Table 6 that Sperrin is stronger in Ulster and Connacht, where Galco has a relatively small presence. Galco has a strong presence in Munster and an extremely strong position in Leinster. However, Sperrin has only a minimal presence in Munster and Leinster.

6.13 Therefore, while Galco and Sperrin compete in the Ulster and Connacht regions, Sperrin's small presence in Munster and Leinster means that the undertakings involved are not close competitors in these areas.

The Extent to which Non-merging Undertakings Constrain the Merged Entity's Ability to Raise Price

6.14 In order to see with whom the parties compete and where, the Authority asked the parties to provide information on individual

[26] Counties Louth, Meath, Westmeath, Longford and north Co. Dublin.
[27] Counties Wicklow, Kildare, Offaly, Carlow, Kilkenny, Laois, Wexford and south Co. Dublin.

business lost and won, the location of the steel fabricators involved and the identities of the galvanisers to/from whom this occurred. Sperrin provided a short list, but Galco gave a longer list of business lost and won in 2006. Much of this information is based on anecdotal evidence from the parties' sales personnel. In many cases, the parties could not say who the work was lost to or won from, so the results given only form part of the picture.

6.15 As the Authority's investigation showed that there were strong regional effects to competition in hot dip galvanising (see Section 4 above), the island of Ireland will be divided into its four regions, in order to see where and to whom the different galvanisers won/lost customers.

Nine counties of Ulster (Galco Dublin, Sperrin NI, Sperrin Tynagh to a minor extent)

6.16 Regarding customers based in Ulster, the parties stated that they recently won and lost work from/to the following galvanisers:

- Silverwood;
- NK Coatings;
- Ultra; and,
- Northwest Galvanising.

Connacht (Sperrin Tynagh, Galco Dublin, Galco Cork to a minor extent)

6.17 Regarding customers based in Connacht, the parties stated that they recently won and lost work from/to the following galvanisers:

- Silverwood.

6.18 Galco estimated that, in 2006, it galvanised about [ ] tonnes of steel from Connacht, which is about [<10%] of Galco's entire tonnage by volume. The parties estimated that Silverwood, Ultra and Shannonside each galvanises more steel in Connacht than Galco does. They also stated that they understood that NK Coatings and Northwest also compete in Connacht.

Munster (Galco Dublin, Cork and Waterford, Sperrin Tynagh)

6.19 Regarding customers based in Munster, the parties stated that they recently won and lost work from/to the following galvanisers:

- Shannonside; and,
- IPW.

Leinster (Galco Dublin, Cork and Waterford, Sperrin Tynagh)

6.20 As Leinster is the largest market by tonnage and as various galvanisers told the Authority that they deliver/collect as far as the environs of a notional Dublin/Galway line due to transport costs and logistics, the Leinster information will be divided into North Leinster and South Leinster, as above, to get a more accurate idea of the presence of competition in each of these areas.

6.21 Regarding customers based in North Leinster, the parties stated that they recently won and lost work from/to the following galvanisers:

- Ultra;
- NK Coatings; and,
- Silverwood.

6.22 Regarding customers based in South Leinster, the parties stated that they recently won and lost work from/to the following galvanisers:

- Shannonside;
- IPW; and,
- Silverwood.

6.23 Table 7 summarises the findings of the Authority outlined above and also the estimated shares of market participants of hot dip galvanising in the various regions (based on Galco estimates).

Table 7
Presence of Competitors to the Undertakings Involved and Estimated Market Shares, Hot Dip Galvanising, Regional Breakdown, Island of Ireland, 2006

Competitor	**Ulster**	**Connacht**	**Munster**	**Leinster North**	**Leinster South**
Shannonside	-	Y (15%)	Y (13%)	-	Y (2%)
IPW	-	-	Y (36%)	-	Y (5%)
Silverwood	Y (31%)	Y (15%)	-	Y (15%)	Y (10%)
Ultra	Y (14%)	Y (15%)	-	Y (8%)	-
NK Coatings	Y (14%)	Y (4%)	-	Y (4%)	-
Northwest	Y (2%)	Y (2%)	-	-	-
Total present	**4**	**5**	**2**	**3**	**3**

Notes: Y = the competitor has customers in the relevant region; market shares of competitors in the given region in parenthesis.

Source: Competition Authority. Market shares are based on Galco estimates.

6.24 Table 7 shows that in the regions where Galco and Sperrin compete most strongly, i.e. Ulster and Connacht, there are several other sizeable competitors whose presence would constrain the merged entity's ability to raise price. These include some of the largest firms outside the merger, such as Silverwood, Ultra and NK Coatings, which offer credible competition.

6.25 There are fewer competitors in Munster and Leinster. However, as mentioned at paragraph 6.12 above, Galco and Sperrin do not compete closely in these regions, as Sperrin has a minimal presence there.

Views of the Competition Authority

6.26 It is clear from Table 6 that the undertakings involved compete with each other in Ulster and Connacht. Although Galco has a strong presence in Leinster and Munster, as Sperrin has a minimal presence in these regions, the parties do not compete closely with each other there.

6.27 As Table 7 shows that there are several other credible competitors in the regions where Galco and Sperrin compete with each other, i.e. Ulster and Connacht, various non-merging undertakings are therefore present who could constrain the merged entity's ability to raise price.

Entry

Submissions of the Undertakings Involved

6.28 The undertakings involved consider that entry would be timely, likely and sufficient in scope to curtail any concerns, as the relevant market is characterised by low barriers to entry, any barriers to entry that do exist are likely to be surmountable and entry has occurred recently.

6.29 In the Indecon Report, the undertakings involved estimated the costs of setting up a galvanising plant on the island of Ireland at €3.9 million for Dublin and €2.25 million for the rest of the island. They considered the three most expensive items to be the site, the industrial building and the galvanising bath with its setting.[28] The parties estimated that the setup costs for the Sperrin Tynagh plant in 2004 were approximately €[ ] million. The parties also stated that it is possible to enter more cheaply by leasing rather than purchasing land and by sourcing equipment and machinery in the UK.

6.30 The parties also estimated that the timescale involved in setting up a new plant would be less than two years. From the first planning application to commencing production, the Sperrin Tynagh plant took 3 ½ years to commence operations. However, construction work was stopped for about 1 ½ years when the County Council was inspecting soil samples on the site (a former mine). This delay was solely attributable to concerns about the safety of disturbing the former mine.

6.31 The parties then stated that "… strategic barriers are low because an incumbent would not be in a position to exploit any significant regulatory or structural entry barriers …".[29] The parties also noted that

[28] Further details of the parties' estimates are contained in the Indecon Report, Table 2.11, p. 51.
[29] Indecon Report, p. 52.

de novo entry recently occurred, such as Northwest in September 2006.

6.32 The parties also noted that the hot dip galvanising market has grown significantly in the last number of years. They estimated that the segment grew by 5% annually from 2002-2006 and that further market growth is projected, making further entry more likely. The growth of the market was confirmed to the Authority by third parties.

6.33 The undertakings involved have also identified several "potential entrants" into hot dip galvanising:

- [ ], large volume users of galvanised steel on the island of Ireland who have previously have threatened to enter the market;
- [ ], galvanisers based in Great Britain;
- [ ] active in the supply of building materials in the State;
- [ ] a galvanising firm based in Northern Ireland, which is considering expanding its geographic reach further south in the State; and,
- An individual not currently active in the market [ ].

Evidence from Third Parties

6.34 The Authority sought information on entry from other hot dip galvanisers and other third parties including customers, Wedge and the Galvanizers Association.

6.35 [The redacted paragraph contains evidence from a third party that a galvanising plant could be opened in 1-2 years].

6.36 [The redacted paragraph contains evidence from a third party on the costs of opening a galvanising plant and the average rate of return on capital of a galvanising plant.]

6.37 [The redacted paragraph contains evidence from a third party regarding entry into the market in the State.]

6.38 [The redacted paragraph contains evidence from a third party regarding entry into the market in the State.]

6.39 [The redacted sentence contains evidence from a third party regarding entry into the market in the State.] In addition, all the major customers of both undertakings involved, who responded to the Authority's questionnaire, stated that they would support new entry, as long as the location/transport costs made it commercially feasible for them.

6.40 However, the General Manager of the Galvanizers Association stated that he gets about one enquiry a month from Ireland about starting a galvanising business, and when he tells the caller how much it costs, they lose interest. He considered entry costs into the galvanising industry to be about stg£1 million to stg£1.5 million. It appears from this that some people unfamiliar with the industry are put off from

investing in a plant due to the entry costs. However, the Authority was informed by hot dip galvanisers on the island of Ireland that there is a sufficient rate of return on capital to enter.

6.41 Relevant factors regarding the scale of entry include the size of the galvanising bath and the number of shifts a galvaniser chooses to run. The Authority was informed that a galvaniser can easily change the number of shifts, depending on how busy the plant is (although this may involve paying overtime). As regards the size of the bath, indications received by the Authority suggest that any entry, (for example [ ]), is likely to be on a fairly large scale. This is because, in order to recoup the sunk costs and maximise plant efficiencies, it makes commercial sense to buy a bath that will minimise "double-dipping" and will be able to take items of different sizes from as many fabricators as possible. In addition, the Authority was informed that a galvanising bath must constantly be heated. Finally, [redaction relates to further evidence regarding entry on a sufficient scale].

Views of the Competition Authority

6.42 The Authority's *Merger Guidelines* require the following three requirements to be met for entry to be able to constrain the merged entity from raising prices post merger:

- Entry must be ***timely*** – entry is considered timely only if it occurs within two years;
- Entry must be ***likely*** – in other words, entry must be profitable at existing (or lower) prices; and,
- Entry must be ***sufficient*** – entry must return prices to their pre-merger levels. For this to happen, entry must occur on a sufficient scale.

In other words, for entry to be a constraint on the ability of the merged entity to raise price post-merger, entry must be timely, likely and sufficient.

6.43 In terms of ***timeliness***, it appears from the Authority's investigation that de novo entry is possible within a period of about two years. This is the upper bound of the Authority's horizon for timely entry. [The redacted sentence considers evidence showing that entry is possible within two years]. The Authority therefore considers that entry is likely to be timely.

6.44 In terms of whether it is ***likely*** that a galvanising firm would enter the market, the relevant question is whether a firm would find it profitable. It would appear from the Authority's investigation that this is the case, in particular as the market is growing significantly (at a faster rate than the UK) over the last number of years. The Authority has received indications that [one or more third parties are looking to enter the market within two years]. [Another third party] stated to the Authority that it could enter the market, and all customers stated that they would support new entry. In addition, there have been several instances of recent entry, e.g. Sperrin Tynagh in 2004 and Northwest in 2006. The Authority therefore considers that entry is likely.

6.45 The final aspect to be considered is whether the entry would occur on a ***sufficient scale***. Entry occurs in discrete stages. Since a bath must be constantly heated, this creates as incentive to utilise the bath. There are advantages to a larger bath, since such a bath is better suited to deal with larger steel products, thus minimising double-dipping. Therefore, there are good grounds for believing that entry is likely to be of sufficient scale.[30]

6.46 In sum, the view of the Authority, based on the available information including the Indecon Report, is that the threat or occurrence of entry in hot dip galvanising over the next two years, is likely to be timely, likely and sufficient, such that the merged entity could not sustain a price increase post-merger.

Expansion and Capacity

Introduction

6.47 Under this heading, the Authority considers:

- the levels of spare capacity in the market;
- the possibility of expanding existing capacity utilisation by adding extra shifts and expanding opening hours; and,
- the possibility of expanding existing capacity by installing a larger bath.

Levels of Spare Capacity

6.48 The parties argued that there is an appreciably large degree of spare capacity in the market and provided the Authority with their estimates of industry capacity. Table 8 shows the parties' estimates for the year ended 31 December 2006.

6.49 In Table 8, the parties used their own tonnage figures and estimated their competitors' tonnage figures.[31] The parties also estimated the capacity in cubic metres of the bath of each of the other hot dip galvanisers (bath size is publicly available).

6.50 The parties then calculated the potential tonnage of each galvaniser by multiplying the estimated bath capacity of each galvaniser by 350 tonnes per cubic metre. The parties considered that this figure of 350 tonnes per cubic metre is an achievable benchmark for capacity utilisation for the typical Irish product mix. However, the parties noted that although the average capacity utilisation for Great Britain is over 400 tonnes per cubic metre, the average capacity utilisation on the island of Ireland is less than 300 tonnes per cubic metre on a consistent basis. The parties then worked out the capacity utilisation rate for each galvaniser.

6.51 Based on these figures, the Authority then analysed the amount of spare capacity in the sector and the percentage of the spare capacity held by each galvaniser.

[30] Apart from Galco and Sperrin, all the hot dip galvanisers are single plant firms and their market shares vary – in terms of capacity – from 7% to 16%. See Table 4 above for details.
[31] Based on Galvanizers Association estimates of tonnages galvanised on the island of Ireland.

Table 8
The Parties' Capacity Utilisation Estimates, Hot Dip Galvanising, Island of Ireland, Year Ending 31 December 2006

Competitor	Estimated volume tonnage	Estimated bath capacity m^3	Potential tonnage at 350t/m^3	Capacity utilisation rate (%)	% of spare industry capacity
	(1)	(2)	(3) [1]	(4) [2]	(5) [3]
Galco	[ ]	118	41,300	[100-110]	[0-10]
Sperrin	[ ]	48.6	17,010	[90-100]	[0-10]
IPW	[ ]	28.4	9,940	[90-100]	[0-10]
Ultra	[ ]	27.3	9,555	[70-80]	[0-10]
Silverwood	[ ]	62.4	21,840	[70-80]	[10-20]
NK Coatings	[ ]	33.7	11,795	[40-50]	[20-30]
Shannonside	[ ]	34.4	12,040	[40-50]	[20-30]
Northwest	[ ]	29.6	10,360	[10-20]	[20-30]
Totals	**102,500**	**382.4**	**133,840**		**100**

Notes: 1. Column 3 = column 2 x 350.
2. Column 4 = (column 1 ÷ column 3) x 100.
3. Column 5 = ((column 3 – column 1) ÷ (133,840 – 102, 500)) x 100.

Source: Galco (columns 1-4), Competition Authority (column 5)

6.52 Table 8 shows that most of the excess industry capacity, which is the equivalent of 31% of current output, is in the hands of non-merging parties. The undertakings involved are operating at full, or almost full, capacity. The companies with the largest shares of spare industry capacity are Shannonside, and Northwest (a new market entrant). Silverwood and NK Coatings also have a significant amount of spare capacity.

6.53 The evidence suggests that post-merger, the merged entity would be capacity constrained and might thereafter attempt to raise its price. However, the non-merging parties have substantial excess capacity and thus are in a position to neutralise any post-merger price increase by expanding output.

Expanding the Levels of Capacity Utilisation

6.54 The parties gave examples of the ease at which plants can increase their capacity utilisation, such as the expansion of Sperrin since its initial market entry in 1997.

6.55 Galco also stated that it was advised that in the modern theory of costs, the unit cost curve is "L" shaped or downward-sloping for a large volume of output, or "U" shaped, turning up only at very large levels of capacity utilisation. It did not provide a formal economic analysis of unit costs for the parties. However, it is not unreasonable, due to the fact that it is necessary to keep a galvanising bath constantly heated, that within certain output ranges, marginal costs are constant.

6.56 The parties argued that the spare capacity in the industry can be readily utilised by expanding shifts (to a 24-hour basis and/or a 7-day week) and employing more operatives at short notice. Some providers such as Silverwood also have links to facilities in Great Britain and could send extra work there if required.

6.57 The parties' view of the ease at which spare capacity can be utilised was confirmed in the Authority's investigation. The number of shifts/opening hours in the industry currently varies by plant, but the maximum possible utilisation appears to be three shifts on a seven-day week. Plants are reluctant to run at this maximum level on a continuous basis, as the equipment must be maintained and there is a danger of significant backlog in case of a breakdown.

6.58 All competitors informed the Authority that they have the scope and would be willing to increase their shift levels/days of opening in response to an increase in demand[32] ([redaction relates to specific details in relation to one galvaniser]). [The redacted sentence relates to further evidence of the possibility of expanding the levels of capacity utilisation of an existing galvaniser.]

Expanding Existing Capacity

Submissions of the Undertakings Involved

6.59 The undertakings involved argued in the Indecon Report that the evidence they presented relating to "… low barriers to entry, low capacity constraints, low switching costs and the opportunities for users to switch supplier, together with the fact that the relevant market is large and rapidly growing (with growth anticipated to continue) suggests that barriers to expansion are low in the relevant market."[33]

6.60 Galco also informed the Authority that due to several factors, including traffic congestion, the movement of its customer base, and the fact that the original bath on the Ballymount site, built in 1969, is nearing the end of its natural life, it is considering relocating a replacement bath to Kilcock, where it has acquired a site. Galco has not started to develop this site and has no set timeframe for doing so. It also informed the Authority that it will install a bath at least 10m long, possibly up to [ ]m long, at this site. Its current larger bath in Ballymount is 10m, therefore installation of a longer replacement bath would increase Galco's capacity from its current levels.

Evidence from Third Parties

6.61 Evidence provided from various third parties suggests that in order to expand existing levels of capacity (on the basis of customer demand), a plant must increase its bath size. This creates efficiencies by reducing the number of items that must be "double-dipped", as opposed to "single-dipped" thus reducing throughput times. It also allows more items to be dipped at the same time and enables larger items than before to be accepted for galvanising, thus increasing the pool of potential customers.

6.62 The Authority was informed that galvanising baths must be replaced approximately every 5-10 years. This is often when galvanising plants decide to install a larger bath. However, a larger bath can be installed at any time. The cost of installing a new bath is approximately €30,000 - €50,000. There may also be additional costs if additional building work has to be undertaken. Some galvanisers have increased their

[32] For example, [ ].
[33] Indecon Report, p.57.

bath sizes over the last couple of years, including [ ] in 2005. [The redacted sentence relates to evidence of plans by a galvanising plant to expand existing capacity significantly].

6.63 *Views of the Competition Authority on Capacity*

6.64 The issue is thus whether a post-merger price increase by the merged entity would be sustainable, because of the threat or occurrence of expansion of competitors, through either increasing output from existing facilities or installing a larger bath. In what follows, we consider whether any such expansion would be timely, likely, and on a sufficient scale.

6.65 ***Timely*** – there is currently spare capacity in the market, most of which belongs to Northwest and Shannonside, although all the parties' competitors have some spare capacity. Expanding shifts and opening hours can be done almost immediately. The Authority therefore considers that all of the spare capacity could be brought on stream within two years.

6.66 It is certain that the installation of a new bath and any ancillary building works can be accomplished within two years.

6.67 ***Likely*** – Excess capacity is the equivalent of 31% of current output and virtually all of this is in the hands of third parties. All such parties informed the Authority that they are willing/able to increase shifts and opening hours in response to additional work ([clarification regarding one galvaniser]). The only additional overhead appears to be overtime, and no galvaniser mentioned this as a constraint. The Authority therefore considers that a certain level of capacity expansion is likely in response to an increase in demand.

6.68 In relation to expanding bath size, as baths wear out about every 5-10 years, it is likely that some competitors will replace their bath in the next two years ([redaction relates to specific evidence in this regard]).[34] Baths can also be replaced at any time, if required. The Authority therefore considers that a certain level of capacity expansion is likely within the next two years.

6.69 ***Sufficient scale*** –all competitors have spare capacity and stated that they have the option of expanding their shifts and opening hours in response to an increase in demand ([redaction relates to further evidence in this regard]). Therefore, the Authority considers that any capacity expansion would be on a sufficient scale.

6.70 [The redacted sentence relates to further evidence of entry on a sufficient scale.] In addition, as plants expand their capacity levels on the basis of customer demand, the Authority considers that the scale of any capacity expansion would be sufficient.

6.71 In sum, the view of the Authority, based on the available information including the Indecon Report, is that the threat or occurrence of greater utilisation of existing capacity and/or building new capacity in hot dip galvanising over the next two years, is likely to be timely, likely and sufficient, such that the merged entity could not sustain a price increase post-merger.

[34] [The redacted footnote considers benefits to customers of the specific evidence redacted].

Imports

6.72 As described in Section 4 above, although importing galvanised steel is physically possible, imports do not appear to be a competitive constraint for the following reasons:

- Transport costs represent a significant barrier to entry (in particular as steel is such a bulky and heavy product and must be fabricated before it is galvanised);
- Turnaround times are also a significant barrier to entry, as a fast turnaround time is very important to steel fabricators and their clients in order not to delay work on site and to maintain stock levels;
- In addition, galvanisers on the island of Ireland do not appear to consider themselves to be competitors of galvanisers based in Great Britain, or vice versa; and,
- The Authority has not found evidence that galvanisers on the island of Ireland do work for fabricators based elsewhere, such as Great Britain.

Buyer Power and Switching Costs

6.73 The parties argued in the Indecon Report that users in the relevant market are predominantly other businesses, which are able to exert a degree of buyer power, manifested in competitive pricing and discounts.[35] Galco stated that its two largest customers, [ ] and [ ], are potential market entrants, and that the combined share of its sales represented by its ten largest customers in 2005/2006 was over [30-50]%, indicating buyer concentration and in turn countervailing buyer power. Sperrin's ten largest customers accounted for at least [20-40]% of all its sales in 2005/2006.

6.74 [ ].

6.75 As regards customers who do not have such buyer power, the Authority's investigation confirmed that contracts were not the norm in the industry, and that steel fabricators were free to switch hot dip galvanising suppliers without incurring a cost. In addition, both customers and other hot dip galvanisers informed the Authority that customers frequently play one galvaniser off against another in order to obtain unpublished discounts.[36] The Authority therefore concludes that there are no switching costs for customers of hot dip galvanising, except for a potential difference in transport costs. In addition, all galvanisers operate to the same product standard.

Conclusion

6.76 The Authority has considered a variety of factors that might constrain the ability of the merging parties to raise price post-merger. It has found that the parties compete only in the Ulster and Connacht regions, where there are several other credible competitors present. In

[35] Indecon Report, Section 4.2.4, p.72.
[36] Prices are not homogenous in any event, as they are dependent on, *inter alia*, the size and frequency of loads and the type of steel products to be galvanised. Transport costs also vary.

addition, the Authority found that there are significant levels of spare industry capacity, which for the most part is in the hands of competitors. Its utilisation (and expansion) is likely to be timely, likely and sufficient. Furthermore, the Authority found that the threat or occurrence of new entry would also be timely, likely and sufficient. In addition, there are no switching costs for buyers, who frequently play one galvaniser off another to obtain lower pricing. The Authority therefore considers that the above factors are likely to restrain the merged entity from raising price post-merger.

SECTION 7: CONCLUSIONS ON COMPETITIVE EFFECTS

Introduction

7.1 In this section, the issue of whether or not the merger will result in a significant lessening of competition is addressed. Both unilateral and co-ordinated effects are considered. In accordance with section 22(8) of the Act, the Authority also considered whether any relevant international obligations of the State existed and is satisfied that there are none.

Unilateral Effects

General

7.2 As described in Section 5 above, the merger will create a market participant with a market share on the island of Ireland of approximately [ ]-[50-70]% (based on tonnage) and approximately [40-50]% (based on capacity). The large HHI and delta result in a 'Zone C' concentration. A concentration of this kind may give rise to competition concerns where, as a result of the merger, the merged entity can profitably raise its price, irrespective of its competitors, and/or where, as a result of the merger, some or all of the firms unilaterally change their behaviour. Both of these situations are referred to as 'unilateral effects'.

7.3 The larger the market share, the more likely it is that a firm possesses market power. The larger the incremental market share, the more likely it is that a merger will lead to a significant increase in market power. The larger the increase in the sales base on which to enjoy higher margins after a price increase, the more likely it is that the merging parties will find such a price increase profitable, despite the accompanying reduction in output.

7.4 The potential for unilateral effects in the post merger market is dependent on the extent to which competitors – actual and potential – as well as the behaviour of customers, constrain the ability of the merged entity to raise price post-merger. The following competitive effects were therefore considered in Section 6 above:

- closeness of competition;
- entry;
- expansion and capacity;
- imports; and,
- customer switching costs and buying power.

Conclusions of the Authority

7.5 In Section 5, the Authority found that the merger falls within Zone C, and is therefore a type of merger that is more likely to raise competition concerns. However, having considered the factors outlined in paragraph 7.4 above, the Authority considers that the ability of the merging parties to raise price post-merger will be constrained, as:

- the parties overlap is greatest in Connacht and Ulster, but here there are existing credible competitors;

- entry is likely to be timely, likely and sufficient;

- expansion of output from existing plant and equipment (i.e. greater utilisation of existing capacity) and expanding capacity (i.e. installing new larger baths) is likely to be timely, likely and sufficient. The available existing excess capacity is virtually all in the hands of competitors to the merging parties; and,

- there are low switching costs for customers, who are free to switch between suppliers. Long-term contracts are not the market norm. Customers often play one galvaniser off against the other in order to obtain lower prices. Prices are not transparent.

Coordinated Effects

General

7.6 A merger may also diminish competition if it facilitates competitors engaging in coordinated interaction to raise prices. Such interaction refers to actions that are profitable only as a result of each firm accommodating the reactions of others. Each firm foregoes some profitable sales at the pre-merger price in order to sell a lower output at a higher price.

7.7 Coordinated effects depend on market characteristics supporting such strategic interaction. Firms must be able to observe each other's actions and must be able to detect and punish deviations from the common (joint profit maximising) strategy.

7.8 Participants must be able to identify terms of coordination, it must be costly to deviate and surrounding competitive constraints must be weak. Table 9 below outlines the conditions that must be present to facilitate coordinated behaviour and the evidence or market characteristics that must be present.

Conclusions of the Authority

7.9 Many of the conditions identified in Table 9 that are needed for firms to tacitly collude are not present either pre or post merger:

- the steel items that are hot dip galvanised are varied in size, type and quantity and are not homogenous;

- costs are variable, depending *inter alia* on the size and frequency of loads and the type of steel products being galvanised. In addition, customers often obtain discounts by playing galvanisers off against each other;

- the merger will increase the inequality in the size of hot dip galvanisers, thus decreasing the probability of coordinated behaviour. The merged entity will be about [3-4] times larger than the next largest galvaniser, compared to Galco's [2-3]

times at present.[37] Coordinated actions are more likely the more similarly sized the firms;

- there are no structural links between the galvanising firms;
- the market is growing and has experienced new entry in recent years, such as that of Northwest (2006) and Sperrin Tynagh (2004);and,
- several competitive constraints exist, including the likelihood of entry, greater utilisation of existing capacity and/or building new capacity.

Table 9
Necessary Conditions and Evidence Required for Coordinated Behaviour

Condition	Evidence required
1. Identify common terms	Market transparency
	Product homogeneity
	Symmetry of costs, production techniques and capacity
	Non-existence of 'maverick' firms
	Structural links – joint ventures, cross shareholdings, etc
2. Costly to deviate	Market transparency
	Market stability
	Structural links
3. Competitive constraints	Same as unilateral effects

Source: Competition Authority

7.10 In sum, the Authority does not consider that the merger will cause coordinated effects in the market, which would lead to a significant lessening of competition.

Relevant International Obligations of the State

7.11 Before making a determination in this matter, the Authority, in accordance with section 22(8) of the Act, considered whether any relevant international obligations of the State existed and is satisfied that there are none.

[37] Table 3 above, based on the parties' tonnage market share estimates.

Determination

The Competition Authority, in accordance with Section 22(3)(a) of the Act, has formed the view that the result of the proposed acquisition of Sperrin Galvanisers (Irl) Limited and Sperrin Galvanisers Limited by Galco Steel Limited will not be to substantially lessen competition in markets for goods and services in the State and, consequently, the Authority hereby determines that the acquisition may be put into effect.

For the Competition Authority

_____
William Prasifka
Chairman of the Competition Authority
Member of the Competition Authority

_____
Dr Paul K. Gorecki
Member of the Competition Authority

_____
Carolyn Galbreath
Member of the Competition Authority

2nd October 2007

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