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SECTION ONE: INTRODUCTION

The Notification

- 1.1 On 22 August 2006 the Competition Authority, in accordance with Section 18 (1) of the Competition Act, 2002 ("the Act") was notified, on a mandatory basis, of a proposal whereby Coillte Teoranta ("Coillte") would acquire the entire shareholding in Weyerhaeuser Europe Limited ("Weyerhaeuser") ("the proposed acquisition").

The Undertakings Involved

- 1.2 Coillte is the State-owned commercial forestry company which owns public forests. Coillte was established in 1989 pursuant to the Forestry Act 1988. It is a private limited company, with the Ministers for Agriculture and Food and for Finance as the shareholders on behalf of the State. Coillte owns and manages circa 445,000 hectares of forestry land in the State. It is active in various separate markets at two vertically-related levels of the forestry products industry. Upstream, Coillte is the largest producer of roundwood in the State.¹ Coillte's wholly-owned subsidiary, SmartPly Europe Limited ("SmartPly"), is a downstream manufacturer of oriented strand board ("OSB") products.²
- 1.3 Weyerhaeuser, the target, is a wholly-owned subsidiary of Weyerhaeuser Europe Holdings, which is ultimately owned and controlled by the US-based Weyerhaeuser Company. Weyerhaeuser has no upstream activities in the State but it is involved in the downstream market for the manufacture and supply of medium density fibreboard ("MDF") products.³

The Transaction

- 1.4 The transaction involves the acquisition by Coillte of the entire issued share capital of Weyerhaeuser pursuant to a Share Purchase Agreement dated 16 August 2006. This will result in Coillte acquiring sole control over Weyerhaeuser.
- 1.5 The total consideration for the transaction is €[60-70] million.

Rationale for the Notified Transaction

- 1.6 In its notification to the Competition Authority, Coillte provides four reasons for wanting to acquire Weyerhaeuser:
 - Coillte's involvement in the downstream market is limited to one product and one plant (SmartPly). This restricts Coillte's scope for future growth in the market for value-added timber-based products. The transaction would broaden Coillte's operations to two products and two plants and create a broader and more diverse customer base;

¹ Roundwood is raw timber i.e., large sawlog, small sawlog, pulpwood and stakewood. Sawlogs are used in the sawmilling industry for processing into wood for sale on the Irish market and export as a commodity product. Pulpwood is used primarily in the boardmill sector for processing into different types of board products. Stakewood is used for agricultural fencing.

² OSB is an engineered product used primarily in the construction industry for structural applications.

³ MDF is an engineered wood product with a wide range of non-structural applications including the manufacture of furniture.

- Coillte depends on the ongoing success of the Irish forestry industry which, in turn, depends on the long term ability of downstream manufacturers to produce high quality, competitively-priced products. As an owner of two key Irish producers of boardmill products, Coillte would provide very strong market security for the Irish pulpwood and sawmill residues markets;
- Weyerhaeuser is a strong commercial business operating in well-established markets with proven demand characteristics; and,
- The merged entity has the potential to capture significant synergies on the downstream market for engineered wood products. While end-uses of OSB and MDF are different, the channels to market are similar and the combined offering of the two products is attractive to customers. There are also potential savings in logistics, purchasing (particularly of key inputs such as resin), operations and shared expertise and equipment.

The Procedure

Phase 1: Preliminary Investigation

- 1.7 A pre-notification meeting took place between the Competition Authority and the parties on 8 June 2006.
- 1.8 The Competition Authority was notified of the proposed transaction on 22 August 2006. Having considered the four third-party submissions received by the Competition Authority, information provided by other relevant stakeholders in the industry, a large number of letters submitted by individuals and the materials submitted with the Notification, the Competition Authority was unable to form the view that the result of the proposed transaction would not be to substantially lessen competition ("SLC") in markets for goods and services in the State.
- 1.9 On 21 September 2006, the Competition Authority determined, in accordance with Section 21(2) of the Competition Act, 2002, to carry out a full investigation under Section 22 of the Competition Act, 2002.

Phase 2: Full Investigation

- 1.10 The Competition Authority received extensive third-party submissions and these are summarised in Section 5 below.
- 1.11 The Competition Authority regularly consulted with Coillte's representatives McCann FitzGerald, and with Weyerhaeuser and provided updates on issues that were relevant to the investigation.
- 1.12 The Competition Authority also spoke with a number of third-parties including Enterprise Ireland, the Department of Agriculture and Food, the Forestry Service, the Irish Timber Council, the Irish Farmers Association, competitors of Coillte in the provision of forest management services, as well as competitors and customers of Weyerhaeuser.

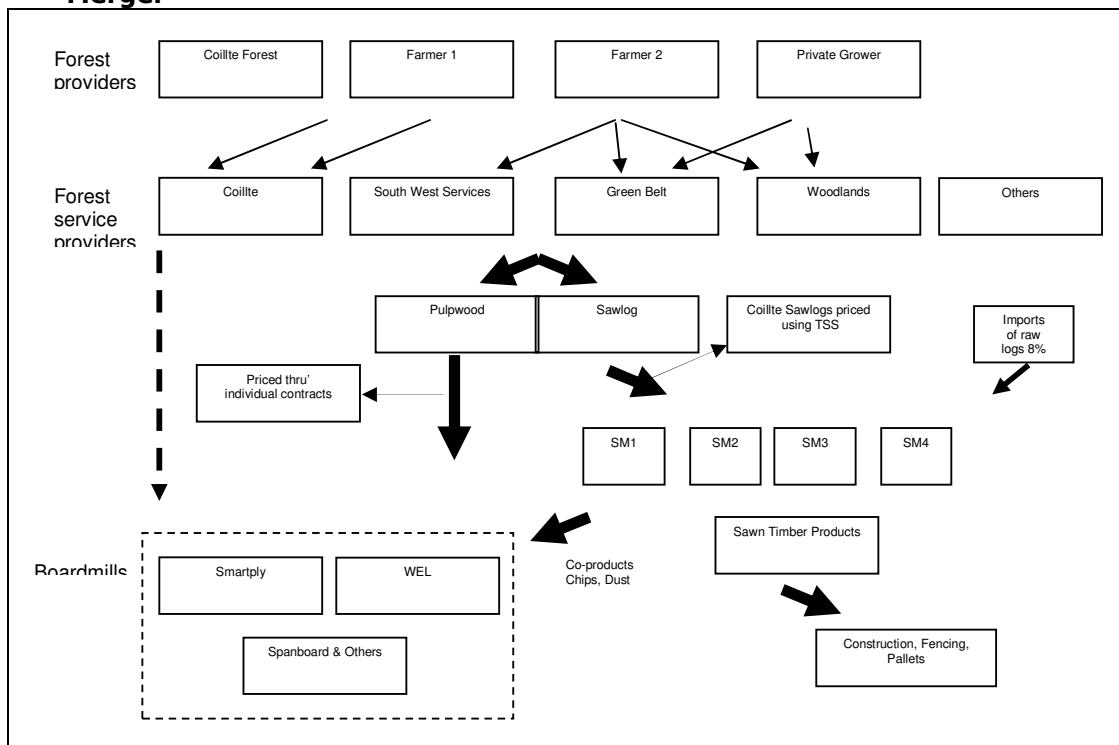
SECTION TWO: BACKGROUND – FORESTRY, SAWMILLS AND BOARDMILLS

Introduction

2.1 This section sets out the environment in which the proposed acquisition is set to take place. The industry sectors involved are the forest services sector, the sawmill sector and the boardmill sector. These sectors are interrelated and operate at different levels of the supply chain: an upstream level in which forest operators compete to provide sawlog to the sawmill sector and pulpwood to the boardmill sector and a downstream level comprising the various product markets (e.g., OSB, MDF, processed timber) on which the boardmill sector's and sawmill sector's finished goods compete.

2.2 Figure 1 below provides an overview of the relevant industry sectors that need to be considered in the Coillte/Weyerhaeuser merger. It shows the stages of production from tree planting (i.e. forest providers) to the finished product such as construction timber. The identity of the major participants at each stage in the production process is also presented in the figure.

**Figure 1
Overview of Relevant Industry Sectors in Coillte/Weyerhaeuser Merger**



Source: Competition Authority

Afforestation

- 2.3 The production of timber involves a lengthy production process. Native trees can take over 100-150 years to mature. However, it is softwood species that account for the vast majority of afforestation on the island of Ireland.⁴ Such species grow extraordinary quickly in this environment and have a life cycle of 35-40 years. Thus, the amount of wood available for harvesting over the coming years is determined by planning decisions taken over three decades ago.
- 2.4 Coniferous trees grow very fast on the island of Ireland; however, this is at the expense of the density of the wood. Identical species in their native environment can take up to 150 years to mature and are correspondingly larger and have a much higher density.
- 2.5 There are a number of stages between seed and clearfell. After planting occurs, forest management services must be provided. For example, in the early years of a tree's existence, vegetation control is important as the trees are not yet tall enough to defend themselves. If the forest is new, roads must be built for the purposes of future thinning and transport of product from the forest.
- 2.6 In order to maximise the output of forests, it is necessary to thin out forest plantations. Thinning is the cutting down and removal of a proportion of trees in a forest crop. It is carried out primarily to provide more growing space for the remaining trees, which maximises the output (volume of roundwood) of the final crop when the forest reaches full maturity. Thinning also provides the farmer with an intermediate source of revenue before the final crop is harvested at the end of the rotation.
- 2.7 Thinning of conifers aims to maximise total production per hectare, in broadleaves the main purpose of thinning is to produce well balanced, even crowns on the final crop trees. Conifer thinning is carried out on a five-year cycle normally, starting when the trees are near twenty years of age. These thinning operations are carried out until the final crop is harvested.
- 2.8 The idea behind thinning is to concentrate the volume increase in a smaller number of trees, resulting in wider individual trees and a greater proportion of sawlog, the most valuable timber size class. An important concept in thinning is the yield class ("YC") of the tree. The yield class is a measure of the growth of the tree crop on an annual basis. A tree crop of yield class 20 will put on 20m³ per hectare per year over the lifetime of the crop. This volume increase holds true whether there are 2,500 trees per hectare or 460 trees per hectare.
- 2.9 Table 1 below outlines how thinning lowers the number of trees, while increasing the volume of the individual trees. The crop would begin with approximately 2,300 – 2,500 trees per hectare ("ha"). The table refers to Sitka spruce, the main softwood species grown on the island of Ireland.

⁴ Unless the contrary is stated, discussions in this Determination refer to softwood and its derivative products.

Table 1
Volume Production of Thinned Sitka Spruce, By Age of Crop, Yield Class 20

Age of Crop	Thinning Cycle	Main crop after Thinning ⁵		
		No. trees/ ha	Mean Vol. (m3) / tree	Vol./ ha (m3)
20	1st Thin	1150	0.130	150
25	2nd Thin	780	0.270	230
30	3rd Thin	590	0.530	315
35	4th Thin	480	0.830	400
40	Clearfell	460	1.170	550

Source: Teagasc

- 2.10 There are usually four thinnings during the lifetime of a tree. The first occurs at around 16-20 years and the subsequent thinnings take place every five years.⁶ The first thinning mostly produces pulpwood and is the most costly as the forest is usually very dense and a large number of trees need to be cut down and taken out of the forest. The trees arising from the second and third thinnings are used in the production of pallets as well as providing pulpwood and stakewood while the fourth thinning provides some sawlog.
- 2.11 The gross return to a forest grower is known as the “stumpage”; that is, the residual value of the timber after taking account of the cost of getting the product to market, i.e. harvesting and haulage.
- 2.12 Harvesting costs vary due to many factors including the total size of forest to be harvested, the diameter of the timber extracted, the terrain, etc. Coillte estimates that the average delivered-in price of pulpwood in 2005 was approximately €[..]/m³. The level of stumpage achieved from this price is determined by the combination of the specific harvesting and haulage costs relative to the forest.
- 2.13 Coillte provides the following information. The current range of harvesting costs for first and second thinnings is between €[..]/m³ and €[..]/m³ and the average is €[..]/m³. Using the average price of pulpwood and holding haulage costs constant, an example of the possible impact of this range of harvesting costs is shown in Table 2 below.

Table 2
Pulpwood Stumpage Values – Impact of a Range of Harvesting Costs per m³

	Low	Average	High
Average delivered-in price	€[..]	€[..]	€[..]
Haulage cost	-€[..]	-€[..]	-€[..]
Range of harvesting costs	-€[..]	-€[..]	-€[..]
Stumpage (residual value)	€5	€1	-€6

Source: Coillte

⁵ The column Vol/ha(m³) is the product of the two previous columns.

⁶ There is some discretion as to the timing of the first thinning – thinning can take place any time between 16-20 years. However, failure to thin during this period (and in subsequent periods) will lower the volume of sawlog available in the final crop.

2.14 Again using the average price of pulpwood and but this time holding harvesting costs constant at the current average, an example of the possible impact of haulage costs is shown in the Table 3 below.

Table 3
Pulpwood Stumpage Values – Impact of a Range of Haulage Costs per m³

	Low	Average	High
Average delivered-in price	€[..]	€[..]	€[..]
Range of haulage costs	-€[..]	-€[..]	-€[..]
Harvesting costs	-€[..]	-€[..]	-€[..]
Stumpage (residual value)	€6	€1	-€9

Source: Coillte

2.15 As can be seen from Tables 2 and 3 above, harvesting and haulage costs have a significant impact on the residual or stumpage value of pulpwood. In certain circumstances, these costs can result in a negative stumpage value so that it may be economic for a grower to thin but not to bring the resulting pulpwood to market.

2.16 Roundwood is raw barked timber, i.e., the final tree when harvested. It consists of four different categories of wood:

- Pulpwood, which is of smaller diameter than small sawlog, is supplied to the boardmill sector to be used in the manufacture of board products;
- Stakewood is pulpwood which is sufficiently straight and of sufficient uniform diameter for use directly as agricultural fencing without significant further processing;
- Small sawlogs, which are smaller in diameter than large sawlog, are used in the sawmilling sector for fencing and pallets. The diameter of small sawlog is less than 20cm but greater than 14cm; and,
- Large sawlogs which are used by sawmills for the production of sawn timber for use in the construction industry. The diameter of large sawlog is greater than 20cm.

Forest Providers and Forest Management Service Providers

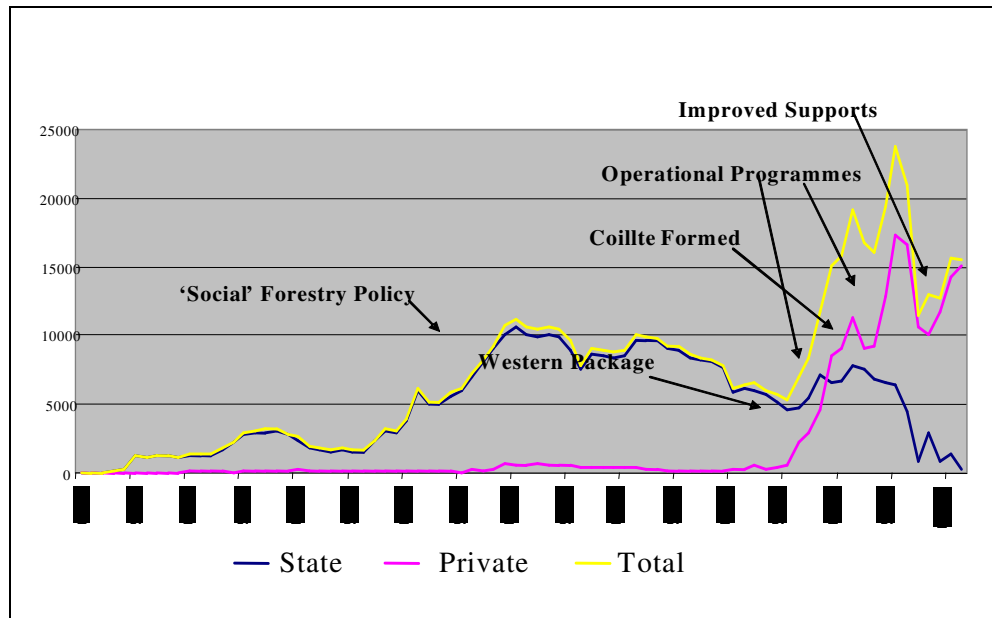
2.17 Traditionally afforestation in the State was carried out by the state sector. This strong involvement of the State in forestry is highlighted by the fact that approximately 70% of all Irish forests are currently owned by Coillte. The remaining 30% is accounted for between 14,000 and 15,000 private growers, mostly farmers.

2.18 Private sector planting only commenced in the mid-1980s in response to European Union and Irish Government subsidies for private growers⁷. Grant aid was and continues to be available both in terms of covering the total cost of planting and establishing the stands and (in the case of farmers) an annual subsidy that covers the opportunity cost of the land devoted to afforestation up to the time when first thinnings should be produced.

⁷ The timing of these in Figure 2 is indicated by 'Operational Programmes' and 'Improved Supports'.

- 2.19 Coillte is ineligible to receive these European Union and Irish Government subsidies given that it is owned by the State. Since the mid-1980s, Coillte has not expanded the amount of land that it has under forests. In the coming years, Coillte will reach their long term steady state. From that point on, Coillte's output will be constant, other things being equal.
- 2.20 As illustrated in Figure 2 below, since the mid-1980s, private sector planting has been running in excess of Coillte. Once land is afforested, landowners are required under the Forestry Act, 1946, to give notice of intention to fell trees, following which prohibition orders are normally served. These remain in force pending the issue of a Limited Felling License, which can include environmental and replanting conditions.⁸ It will round another 20 years, however, before any significant increase in roundwood supplies become available from private forests. In the meantime, the first thinnings are becoming available from the private forests.

Figure 2
Afforestation⁹ in the State, Public & Private, Selected Policy Interventions, 1920 to 2001



Source: Green Belt Limited

- 2.21 Coillte and a number of private undertakings (e.g. Green Belt Limited, South Western Services Limited, Forest Development Association C-operative, Forestry Service Limited¹⁰) are engaged in the provision of forest management services. Such services include providing advice and managing the production of roundwood for private growers – planting trees, subsequent management and harvesting of the forests. It is possible that private forest growers who wish to engage in forest

⁸ <http://www.agriculture.gov.ie/index.jsp?file=forestry/pages/felling.xml>. The Competition Authority is also aware that the certification system operated by the Forestry Stewardship Council requires the land to be replanted as forest once harvested.

⁹ The vertical axis represents the number of hectares planted each year.

¹⁰ For a more comprehensive listing see <http://www.itga.ie>

production could provide many of the services themselves under the direction of a qualified forester.

- 2.22 Forest management services are typically initially provided through a four-year contract, with annual contracts thereafter. The duration of the initial contract reflects the way in which the subsidy payments from the European Union and the Irish Government are structured. However, there are other contractual relationships and these are discussed in Sections 4 and 6 below. Needless to say the demand for forest management services received a considerable increase with the advent of these subsidies.

Sawmill Sector

Transforming the tree into sawn timber products

- 2.23 Sawmills produce sawn timber (processed timber used in construction, pallets, fencing and leisure products) and residues (woodchips, sawdust, bark) from sawlog. Residues accounted for just over half of the total output by volume of sawmills in 2005. Woodchips are sold to the downstream boardmill sector. Sawdust is used as a source of energy and it is also sold to particle board manufacturers.

Pricing Sawlogs: the Timber Sales System

- 2.24 Sawmills currently purchase large and small sawlogs from Coillte.¹¹ Sawlog is sold by Coillte through the Timber Sales System ("TSS"), which was introduced in mid-1996.¹² The TSS is an auction system whereby sawlogs are sold in lots to the highest bidder subject to an independently audited reserve price.¹³ Under the TSS there is only a spot market. There are no long-term contracts, as might be expected for a long lived natural resource, nor any forward market. Finally, the TSS works in such a way that sawmills are discouraged from building up inventories of sawlog.
- 2.25 Under the TSS lots of timber are sold using an electronic auction system. Details of each lot on offer are displayed on the computer screen and two rounds of bidding are held which provides each customer with two opportunities to bid for the lot in question. Lots are sold to the highest bidder subject to the reserve price being exceeded. Coillte sets the reserve price for each lot in advance. It does not disclose the reserve price which is calculated using a methodology devised by McKinsey & Co that combines two estimates: willingness to pay ("WTP"); and historic prices.
- 2.26 WTP is derived from prevailing final product prices applied to yields and from the cost structures of average efficient sawmills. The prices (and associated volumes) are based on information supplied to D M Barry & Associate Management Consultants on a confidential basis by

¹¹ Some sawmills in the State import a small proportion of sawlog from Scotland. The sawmills also currently purchase a very small proportion of sawlogs from private forestry growers – the amount of sawlog available from private growers will increase significantly, as noted above, in the next 20-25 years as their forests mature.

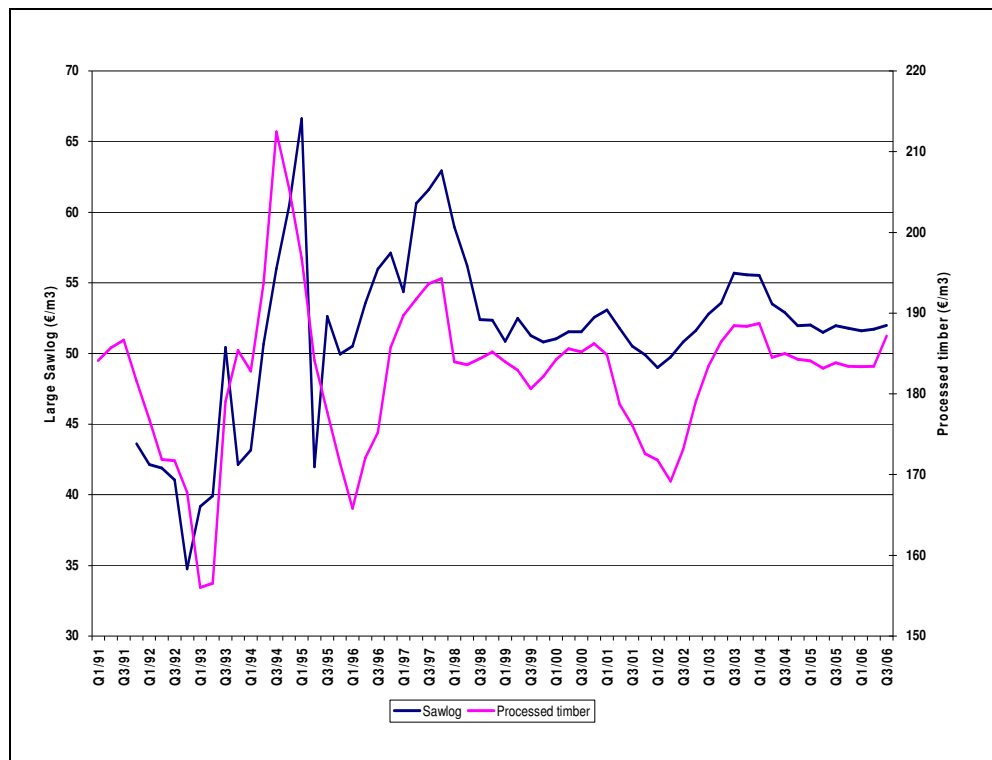
¹² Details of the TSS may be found in Competition Authority, 1998, *Report of Investigation of the Proposal whereby Coillte Teoranta would Acquire the Majority of the Issued Share Capital of Balcas Limited*. Dublin: Stationery Office, paragraphs 4.37-4.39 and 5.73. This report will be referred to as Competition Authority, *Balcas Report*. The discussion in the text follows this earlier Competition Authority report.

¹³ Coillte-harvested pulpwood is not sold on the TSS but is sold on the basis of negotiated contracts.

individual sawmills and Enterprise Ireland and is used by Coillte to construct a demand curve for sawlog. The information is collected on a monthly basis and presented in the *Irish Timber Market Prices – Presentation of Key Findings*.¹⁴

2.27 There is a clear relationship between the price of Irish processed timber and Irish sawlog. Figure 3 below illustrates the link between downstream sales of processed timber in Ireland and the upstream market for sawlog. Changes in the local price of processed timber, which are determined by the interaction between sawmills across Europe, feed upstream into the price that Irish sawmills are willing to pay local forestry operators for sawlog.

Figure 3
Delivered Price of Irish Construction Grade Processed Timber and Irish Sawlog, 1991-2006



Source: Coillte

2.28 A small volume of sawlog is imported from Northern Ireland and Scotland and does not go through the TSS. Imports from Northern Ireland come from the Northern Ireland Forestry Service which sells its sawlog to sawmills in the State on the basis of long-term contracts through a tendering process. Imports from Scotland are priced through a tendering process whereby domestic sawmills compete with Scottish sawmills for batches of sawlogs from private estates.

Sawmills

¹⁴ The data provided in these reports include the outputs of sawmills disaggregated by product to quite a fine level of detail, with both home and export prices recorded, as well as sales volumes. [...]. These reports will be referred to as the Barry Reports.

- 2.29 In 2003, there were 38 enterprises engaged in sawmilling in the State. These included firms such as Glennon Bros Cork Limited, Laois Sawmills, Grainger Sawmills, etc. Neither Coillte nor Weyerhaeuser is involved in sawmills, although Coillte did try unsuccessfully to buy a sawmill, Balcas Limited, in the late 1990s, but this was blocked on competition grounds.¹⁵ Sawmills are represented through their trade association, the Irish Timber Council.
- 2.30 There is substantial overcapacity in sawmills, which is attributed by the sawmills to investment decisions based on estimates of sawlog that proved biased upward. In 2000, Coillte estimated, as part of the "Millennium Forecast", that it would substantially increase the output of sawlog from its forests.¹⁶ Partly as a consequence of this, since 1999, sawmills have invested over €100m in new and replacement technology in order to increase their throughput. The anticipated increase in the volume of sawlog from Coillte forests was lower than estimated and this, combined with the increased investment in sawmills, resulted in large overcapacity in the sawmill industry. There has been significant rationalisation of the industry in recent years as less efficient sawmills have been forced to exit the industry. In 1991, 70% of sawlogs were processed by ten sawmills; now over 70% of sawlogs are processed by five sawmills and ten sawmills process 95% of sawlogs.

Boardmill Sector

Engineered wood products

- 2.31 The boardmill sector manufacturers engineered wood products, such as OSB, MDF and particleboard. These products use as inputs pulpwood, woodchip and sawdust from the sawmills.

OSB/Smartply

- 2.32 OSB is an engineered product used primarily in the construction industry for structural applications. Pulpwood is the only forestry product used in the manufacture of OSB. OSB is sold to builders merchants and has to compete with imports.
- 2.33 SmartPly Europe Limited ("SmartPly") is the only manufacturer of OSB in the State. It purchased [55-60]% of the pulpwood available in 2005, virtually all from Coillte.

MDF/Weyerhaeuser

- 2.34 MDF is an engineered wood product with a wide range of non-structural applications including the manufacture of furniture. While OSB is constituted 100% from pulpwood, MDF can be manufactured from almost any form of wood fibre. MDF may be manufactured from 100% pulpwood through to 100% woodchip. At the present time MDF manufactured in the State is generally 80-90% sawmill residue woodchip with 10-20% pulpwood.
- 2.35 Weyerhaeuser is involved in the manufacture and supply of medium density fibreboard ("MDF") products. It is the only manufacturer in the

¹⁵ For details see, Competition Authority, *Balcas Report*.

¹⁶ http://www.coford.ie/iopen24/pub/defaultarticle.php?cArticlePath=196_266_229

State of MDF. When the plant was originally set up, it was done so on the basis of a long-term contract with Coillte for the supply of pulpwood. More recently these contractual arrangements are coming to an end and Weyerhaeuser sources its pulpwood on short term contracts. It purchased [15-20]% of the pulpwood available in 2005. It currently sources [85-90]% of its pulpwood from Coillte, [5-10]% from sawmills and the remaining [5-10]% from private growers.

The Merger in Context

- 2.36 The competitive implications of the proposed vertical merger of Coillte and Weyerhaeuser are likely to be felt upstream in sawlog, woodchip and pulpwood. Coillte is an important supplier of these either directly or indirectly via the sale of sawlog to sawmills. The merged entity will be a substantial buyer of those products. It is this combination that means that the merged entity may be able to exert influence over price and output. The impact on the downstream market depends on the extent to which OSB and MDF are in separate markets and how competitive those markets are.

SECTION THREE: RELEVANT PRODUCT AND GEOGRAPHIC MARKETS

Introduction

- 3.1 In this section the various markets are defined in terms of product and geographic dimensions. Unlike a horizontal merger case which may require only one market to be defined, in a vertical merger such as the instant case, consideration has to be given to defining several related markets in the production process.
- 3.2 In considering whether a separate product or geographic market exists the Competition Authority applies Small but Significant Non-transitory Increase in Price (SSNIP) Test (also known as the hypothetical monopolist test).¹⁷ The price increase is between 5 and 10%. The SSNIP test in merger analysis applies a price increase “above the prevailing level.”¹⁸ In some instances the prevailing price will be the competitive price, in others a price in excess of the competitive level.
- 3.3 In the Coillte/Weyerhaeuser merger, for example, it appears to the Competition Authority that, on the balance of probabilities, the TSS, which is used to determine the price of roundwood, operates in such a way that it sets the monopoly price for roundwood. In other words, given the demand for roundwood and the downstream import price for products that compete with the output of sawmills in the State, Coillte, as the virtual monopoly supplier of roundwood,¹⁹ has both the ability and incentive through the operation of the TSS to set the monopoly price so as to maximise profits.²⁰
- 3.4 As a result in the downstream markets the geographic market definition will be wider than the State (or the island of Ireland), since Coillte sets a price for roundwood that allows sawmills to set a price for domestic processed timber just below the imported price of processed timber. If Coillte were unable to exert such market power via the TSS – which may start to happen between 2020 and 2025 as the private growers output comes on stream – then arguably the geographic market would be narrower.
- 3.5 Such caveats and qualifications should be borne in mind when considering the discussion of product and geographic markets below.

Forest Management Services

¹⁷ 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 product A and B and asks if a hypothetical monopolist of both products could profitably increase the price of both products by 5-10%. If a sufficient number of consumers switch to another product, say product C, the test is then reapplied by including product C with products A and B. The test is iteratively applied until a hypothetical monopolist of some 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. Full details of the test are explained in the Competition Authority, 2004, *Notice in Respect of Guidelines for Merger Analysis*, Decision No. N/02/004, hereinafter referred to as Competition Authority, *Merger Guidelines*, which are available on the website, www.tca.ie.

¹⁸ Competition Authority, *Merger Guidelines*, paragraph 2.5.

¹⁹ The discussion in Section 4 below suggests that the high market share of Coillte in roundwood is augmented by high barriers to entry.

²⁰ This is the view that the Competition Authority came to in the *Balcas Report*.

- 3.6 There is a market for the provision of forest management services. This covers the planting and establishing of stands and the on-going management of forests. It is not possible to define a market for planting and establishing alone as firms who are engaged in on-going management of forests would enter in response to a SSNIP type price increase. The opposite is also true. In the same way it is not possible to define a relevant market that is only as wide as the provision of such services to one set of growers. In such a case the response of the firms providing such services to other growers would likely enter in response to a SSNIP type price increase.
- 3.7 Coillte and a number of private forest companies (see paragraph 2.21) are engaged in the provision of services to private forest growers. Such services include providing advice and managing the production of roundwood for private growers – this would include planting trees, subsequent management and harvesting of the forests. It is possible that growers who wish to engage in forestry production could provide many of the services themselves under the direction of a forest expert. Thus, self provision of such elements of forestry management services may be a substitute for purchasing such services. This is likely to be the case for larger growers as they can afford to hire the expertise, acquire the required specialist equipment, train operatives in the use of the equipment etc.
- 3.8 This market is at least as wide as the island of Ireland as if a hypothetical monopolist in the State raised prices by a SSNIP amount, growers would turn to service providers in Northern Ireland. Given the large proportion of the costs that are associated with labour (and the relatively small size of the Irish market) it is unlikely that such a service is traded over much longer distances.

Roundwood

- 3.9 The sawmilling sector uses roundwood as its input. It can purchase timber standing (in which case it must find an outlet for the pulpwood) or it can purchase the sawlogs at the roadside. In some instances, Coillte sells the roundwood standing with a provision in the contract that Coillte owns the pulpwood. Roundwood can also be purchased on a delivered-to-the-mill basis. Sawmills have no use for the pulpwood which must be subjected to an intensive production process to be turned into a marketable commodity.
- 3.10 In terms of the geographic market, sawmills source their roundwood from Coillte (which will remain a practical monopoly supplier until the private forests mature in the coming decades), Northern Ireland and that part of Scotland that remains free of spruce beetle infestation. The geographic market for roundwood has been subject to a natural SSNIP type experiment and it can be seen that it is not possible for a monopolist supplier of roundwood in the State to raise prices without inducing consumers to switch to suppliers in Northern Ireland and Scotland. Thus, the market for softwood roundwood is a properly defined intermediate market which is no wider than the island of Ireland and that part of Scotland that remains free of insect infestation.
- 3.11 The market cannot be extended to other parts of Scotland as the removal of bark and the sanitary controls create a sufficient barrier that consumers will not switch to this source of potential supply. Given

that roundwood from further afield also face transport costs, it is clear that these areas too cannot be included in the relevant market (notwithstanding the quality difference between roundwood sourced locally and from other parts of the world). Although there are imports of debarked logs these are of a different quality for the production of higher value structural construction timber.

- 3.12 The various outputs of the processed roundwood is differentiated into: non-structural construction timber; fencing, pallets, garden and leisure products. In addition there are residual products – woodchips and sawdust. Each of these in turn acts as an input into downstream markets to produce various timber based products. Each of these and the downstream markets that they feed into are discussed in turn. Given the large differences in value of the final products produced by each part of the tree, the relative proportions of each in any given tree determine its value to the sawmill.

Non-Structural Timber

- 3.13 The prices received in end markets for products produced from large sawlog are higher than is obtained for products made from other parts of the log. This is reflected in the large price differential that large sawlog commands over other log products. Large sawlog is worth over 2.5 times more per m³ than small sawlog. Moreover, it is not possible to produce the final products derived from large sawlog from other parts of the tree.
- 3.14 Large sawlogs grown in the State and the UK are used as non-structural timber in the construction industry. The National Standards Authority of Ireland (“NSAI”) is involved in setting standards in conformity with EU norms.²¹ The NSAI also certifies building techniques and the materials used. In general, timber grown in the State and the UK cannot be used for structural purposes in the construction industry.²² For the most part, they do not compete head to head with structural construction timber imported from the continent and North America.
- 3.15 Construction timber is demanded by the construction industry and by various building intermediaries (serving both the construction industry and the household market). The construction industry is undergoing a major transformation with the growing penetration of timber framed houses. These houses now make up 30% of all houses completed in the last year. The remainder are traditional concrete built houses that only require structural grades of timber for roofing purposes.
- 3.16 Firms demanding all grades of construction timber look both to domestic and international sources. Imported construction timber is required for structural uses. This makes it possible and likely to also import non-structural grades of construction timber from the same sources. The imported price of such timber is determined by the interaction of demand and supply on the European continent.

²¹ It would appear that these standards are not set in such a way that they constitute a non-tariff barrier to trade, enabling prices in Ireland to exceed import prices. For details see Annex A below.

²² One sawmill has invested heavily in drying technology etc., to be in a position to produce a Irish grown structural timber (of the lowest structural grade). However, this is against a background where there is considerable consumer resistance to Irish timber generally.

- 3.17 If there was a hypothetical monopolist for non-structural timber it would be possible for it to profitably institute a SSNIP type price increase. There are few substitutes for the use of non-structural timber in the building industry. Building firms could attempt to use structural timber but this comes at a premium such that it would not be economic to do so. There may be other wood based manufactured products that may arrive in the future but within the period under consideration firms would be forced to pay the higher prices.
- 3.18 At the same time, imports of timber of a non-structural quality does occur both as part of a package of all grades of timber and in response to requests from Irish firms using such timber.
- 3.19 The analysis does not need to delve down into the level of a given type of timber output (given the quality of the input). It would not be possible to define a relevant market at such a level of granularity due to the instant supply substitution response.
- 3.20 Thus, there is a market for non-structural timber that is wider than the island of Ireland.

Pallets, Fencing, Garden and Leisure Products

- 3.21 Small sawlogs are used to produce smaller and lower value timber based products than are produced from large sawlog.
- 3.22 Timber from small sawlog can be used for pallets, fencing, garden and leisure uses. The great ease of supply substitution means that all of these can be readily analysed in one relevant market. Figures from various issues of the Barry Report indicate that up to 40% of the final output from small sawlogs is exported (mainly to the UK). Large sawlog is worth substantially more per m³ than small sawlog. Thus, it is easy to see how a hypothetical monopolist supplier of small sawlogs could execute a SSNIP type price rise without triggering entry from producers that deal with large sawlog. Thus, the wholesale inputs are in different relevant markets. However, the question remains how wide is the geographic market for the finished product?
- 3.23 It is clear that there is trade in the final products from small sawlog, with the State being a net exporter of such products. However, could the producers of the final products raise their prices to consumers and intermediary re-sellers without inducing trade? It is clear that given the likely identical input prices and transport costs, that any such move would induce imports from Northern Ireland. So the market is wider than the State.
- 3.24 The Authority has evidence that re-sellers can and do resort to sourcing such products from as far away as Canada when prices on the island of Ireland rise by SSNIP type levels. This gives the Authority conclusive evidence that the relevant geographic market for the products produced from small sawlogs is wider than the island of Ireland. Moreover, the UK is the largest import market for timber and timber products in the EU. Any attempt by Irish suppliers of the finished products made from small sawlogs to increase the price would likely lead to re-sellers attempting to source supplies in the UK (without regard to their country of origin). Thus, the output of sawmills (from small sawlogs) can be seen as one market (due to supply substitution) which is international in geographic scope.

Stakes

- 3.25 Pulpwood is that part of a tree that is less than 14cm in width. If it is sufficiently straight, this wood can, with minor processing, be used to manufacture stakes.
- 3.26 Stakes are used in agriculture for fencing, by the National Roads Authority in constructing barriers (both traffic separation and fencing to keep livestock off the roads) and by households for domestic purposes. Depending on the nature of the final consumer, stakes can be purchased directly from sawmills or through various intermediaries (builder's providers, hardware stores, agricultural co-ops, etc.) Stakewood sells at a premium relative to pulpwood and hence is in a separate market. However, given that small sawlog is about 3 times more valuable than pulpwood it is unlikely that stakewood can be used as the link to merge the pulpwood and the small sawlog markets.
- 3.27 A hypothetical monopolist producer of stakes could raise the price of stakes without inducing firms working with small sawlog to enter the stake market. This is due to the large difference in raw input price and due to the even greater differences in finished goods prices. Other pulpwood that is not sufficiently straight would also not act as a constraint. Thus, there is a relevant market for stakewood and stakes. The input market is as wide as the island of Ireland and that part of Scotland that can supply into the Irish market. There may be some limited international trade in stakes but this is likely to be limited by its very low value relative to weight. This is one area where it may be possible for prices on the island of Ireland to depart to a significant extent from prices abroad.

Pulpwood

- 3.28 Pulpwood is then taken from insufficiently straight parts of trees that are less than 14cm in diameter. This is a low value product that is worth only a few euros standing in the wood (i.e., the so-called stumpage value, which is the residual value once harvesting and haulage costs are taken into account). Moreover, evidence has been presented to the Competition Authority that moving pulpwood large distances, even in Irish terms, from its source will make the harvesting of pulp barely a break-even exercise. This is true mainly of first thinnings where pulpwood makes up to 80% of the total output of first thinnings. The subsequent thinnings produce sufficient small and large sawlog to be an economic proposition. However, approximately half of the pulpwood produced per hectare is produced in the first thinning.
- 3.29 Pulpwood is an input into the manufactured boardmills that produce a machined product to be used in the construction sector. Increasingly, there are additional uses for pulpwood in the bio-energy sector. However, these potential uses are currently at a nascent stage and it is unclear if they will develop into major players in the pulpwood market.
- 3.30 Most purchasers of pulpwood do not have alternative products that will satisfy their needs. Thus, a large majority of the pulp consuming plants cannot use another input if a SSNIP type price increase occurs. However, the Weyerhaeuser plant can readily substitute residues for pulp but at the cost of increasing the use of its debarking and chipping plant. At the margin, this might reduce the profitability of the SSNIP

price increase but only at the expense of Weyerhaeuser bidding up the price of residues.

- 3.31 Pulpwood satisfies the SSNIP test as it is lower in value than all other parts of the tree. If a hypothetical monopolist in the State raised pulpwood prices by 5-10%, it would not be in the interest of firms that produce stakewood to divert resources into this sector. Moreover, it is not clear that this would induce imports from Northern Ireland outside areas closer to the border. Nonetheless, if there were areas a little further from the border where prices remained above those close to the border, pulpwood would move from this region into the region with a higher price. Given the relatively short distances involved, the island of Ireland can be considered the relevant geographic market on the basis of a chain of substitution between local markets.

Sawmill Residues: Woodchips, Sawdust and Bark

- 3.32 The residues produced by the sawmill sector (woodchips, sawdust, and bark) are used as an input into the boardmill sector. As explained in Section 2 above, the MDF produced by Weyerhaeuser can theoretically be manufactured from 100% pulpwood through to 100% woodchip (although there are legal limitations related to the noise emissions from the debarking machine that is required to prepare the pulpwood for the production process). Weyerhaeuser's formulation is currently 80-90% woodchip with 10-20% pulpwood.²³ The current level of pulpwood use is at a historic high as compared to a low only five years ago. Weyerhaeuser's production function has a very high elasticity of supply substitution over a large proportion of its output. However, this does come at the cost of ramping up production of the debarker plant.
- 3.33 Given the relatively low-value nature of sawmill residues, the relevant geographic market can be considered no wider than the island of Ireland.

The Boardmill Markets: MDF & OSB²⁴

- 3.34 MDF is used in the construction of furniture and other house and office timber based fittings. MDF is sold to the undertakings that manufacture such products. Firms that use MDF would not substitute to raw timber and other timber based products due to price and ease of use considerations. MDF is an internationally traded input whose price is determined on international markets. Thus, there is a relevant downstream input market for MDF, which is wider than the island of Ireland.
- 3.35 OSB is used in the construction of houses and other dwellings. It has been specifically designed for such purposes and has no other important uses. It enables the construction of internal spaces in a cheap and efficient manner. Whilst, technical substitutes such as engineered wood products do exist, there is a considerable price difference. Thus, it would be possible to initiate a SSNIP type price increase without building firms substitution away from OSB. OSB is an internationally traded commodity whose price is set internationally.

²³ Woodchip is also used as an input by the doorskin manufacturer, Masonite.

²⁴ It could be argued that there are separate product markets for particleboard and fibreboard. However, given that MDF and OSB are separate markets there is no need to consider these issues further.

Thus, there is a separate relevant market for OSB that is wider than the island of Ireland.

Conclusion

3.36 There are nine relevant markets which need to be considered in this Coillte/Weyerhaeuser merger. These are summarised in Table 4 below.

Table 4
Overview of Relevant Product and Geographic Markets

Product Market	Geographic Market
Forest management services	Island of Ireland
Roundwood	Island of Ireland and part of Scotland
Non-structural construction timber	Wider than the Island of Ireland
Pallets, fencing, garden and leisure	Wider than the Island of Ireland
Stakes	Island of Ireland
Pulpwood	Island of Ireland
Residues (woodchips, sawdust and bark)	Island of Ireland
MDF	Wider than the island of Ireland
OSB	Wider than the island of Ireland

Source: Competition Authority

SECTION FOUR: MARKET STRUCTURE AND COMPETITIVE CONDITIONS

Introduction

- 4.1. Market structure can be characterised as the number and size distribution of firms. In analysing a horizontal merger attention is paid to the combined market shares of the merged entity in a given market. In a vertical merger such as the instant case, in contrast, there is no horizontal overlap, since both the undertakings involved operate in separate but vertically related markets. Here attention is confined to determining whether or not either of the undertakings involved has market power in any of the vertically related markets in which they operate. Such market power is a necessary but not sufficient “pre-requisite for competitive harm from foreclosure.”²⁵
- 4.2. As a proxy for an undertaking having market power a threshold market share of 30% is used. Such a threshold used in Commission Regulation No 2790/1999, *On the application of Article 81(3) of the Treaty to Categories of Vertical Agreements and Concerted Practices*. In other words, an undertaking with a market share of less than 30% is assumed to have no market power, while above that the firm may have market power. This threshold is primarily concerned with the unilateral exercise of market power.
- 4.3. However, consideration also needs to be given to co-ordinated effects in considering mergers. Therefore, attention needs to be paid to whether a small number of similarly-sized firms account for a large proportion of market output. This reflects the fact that coordinated effects are more likely where market shares are symmetric.
- 4.4. According to the Competition Authority’s *Merger Guidelines*, a Herfindahl-Hirschman Index (“HHI”)²⁶ of greater than 1800 indicates a situation where “mergers occur in already highly concentrated industries” (paragraph 3.10). Therefore, if the HHI is above 1800 then this indicates that firms in that market may be able to exercise market power. However, use of the HHI should be viewed with caution where co-ordinated effects are being examined.²⁷
- 4.5. As the Competition Authority’s *Merger Guidelines* make clear, in order to accurately characterise the competitive conditions in a market attention has also to be paid to factors such as barriers to entry and exit, buyer power, switching costs, and so on. Thus while market shares and the HHI index are used as screening mechanisms, reference to other market characteristics is necessary in order to determine the presence of market power.
- 4.6. Ideally for each market identified in Section 3 the Competition Authority should have precise data on the market shares of each

²⁵ Economic Advisory Group for Competition Policy, 2006, *Non-Horizontal Mergers Guidelines: Ten Principles*, Brussels: the Commission. p. 4. These Guidelines may be accessed at: http://ec.europa.eu/comm/competition/mergers/legislation/non_horizontal_guidelines.pdf. They will be referred to as EAGCP, *Ten Principles*.

²⁶ The HHI is defined as the sum of the squares of the market shares of all firms participating in the market. The larger the value of the HHI the more concentrated the market.

²⁷ While a market with two equal size firms will generate a HHI of 5000, the HHI for a market with two firms that have market shares of 0.9 and 0.1, respectively, will be 8200. However, co-ordinated effects will be much more likely in the scenario with the lower HHI.

market participant, but especially for the undertakings involved. While for a number of markets this is the case, in others it is not. However, this does prevent the Competition Authority from coming to a conclusion about competitive conditions because information other than market share can be used to characterise competitive conditions on the market.

Forest Management Services

- 4.7. The forest management services market appears to be competitive. No single firm has a market share greater than 30% and the HHI index is less than 1800 (Table 5). Coillte is the second ranked firm with a market share of [20-25]%. The market for forest management services has grown substantially in the recent past with advent of private growers including farmers planting and harvesting trees. Since the subsidy driven nature of this demand is likely to continue the market will continue to expand, since the forest management services will be required both for the stock (i.e., thinning) and additions to the stock (i.e., new plantings).

**Table 5
Market Shares (m³), Forest Management Services to Private Forests, the State, 2005**

Supplier	Market Share (%)
Greenbelt	>25
Coillte Forest Services	[20-25]
South Western Services Forest Services Limited Mid-Western Forestry Woodlands Group	[25-30]
Qualified foresters	[25-30]
Total	100
Summary Measures	
C ₁	>25
HHI ²⁸	1330

Source: Based on data supplied by Coillte

- 4.8. In terms of contractual relations between forest owners and forest management service providers these typically are for an initial period of four years and thereafter are on an annual basis. The initial four year period is determined by the structure of grants to private growers. Hence it appears that growers would have no difficulty switching between forest management service providers.
- 4.9. It should be noted that at least some of the forest management provider do offer long-term contracts. For example, the average duration of Coillte Forest Partnership is [35-45] years. However, such schemes are not popular accounting for less than [10-15]% of Coillte's forest management business. The main customers for Forest Partnership are older farmers or widows of farmers, who are typically not in a position to actively become involved in the management of their forests.

²⁸ The HHI index was estimated on the following market share assumptions:[...]

Roundwood

- 4.10. The roundwood market is not competitive. Coillte has a large and enduring market share and there are high barriers to entry. This provides Coillte with the ability and incentive to charge the monopoly price for roundwood. The operation of the TSS system provides Coillte with the means to extract the maximum amount of economic rent from the downstream purchasers of roundwood. Consequently, it appears to the Competition Authority that, on the balance of probabilities, Coillte is charging the monopoly price for sawlog.
- 4.11. Table 6 presents the market shares of roundwood suppliers in the island of Ireland in 2005, based on volume (m³) sold in the island of Ireland.²⁹ These data show that Coillte has a market share well in excess of the 30% threshold at [75-80]% which on its own is enough to result in an HHI index in excess of 1800. Thus the roundwood market is one in which market power concerns are likely to arise based on such structural indicators.

Table 6
Market Shares (m³), Roundwood, the island of Ireland, 2005

Supplier	Market Share (%)
Coillte	[75-80]
Northern Ireland Forestry Service	[10-15]
Private ³⁰	[5-10]
Imports	[5-10]
Total	100
Summary Measures	
C ₁	[75-80]
HHI ³¹	6129

Source: Based on data supplied by Coillte

- 4.12. Coillte has long held a high market share in the roundwood market on the island of Ireland. In 1996 Coillte accounted for 87% of the sales of roundwood on the island of Ireland. One of the important reasons for the decline in Coillte's market share has been the limited relaxation on the importation on the prohibition of unbarked timber into the State.³² However, it is a limited relaxation since it only applies to certain parts of Scotland.
- 4.13. Coillte's position of market power in the roundwood market will not be challenged until around 2020-2025 when there will be a significant increase in the supply of roundwood from the private sector. This reflects the fact that the private sector investment in forests in the State dates from the mid-1980s and concentrated almost exclusively on new plantings. It is reasonable to anticipate that Coillte's current ability and incentive to extract the full monopoly price for sawlog through the operation of the TSS will, all else being equal, be significantly undermined when supplies of roundwood from private growers begin to enter the market in approximately 2020-2025.

²⁹ There were no exports of roundwood in 2005.

³⁰ Private growers include Irish Forestry Unit Trust, Green Belt Limited, South Western Services and other private growers.

³¹ The HHI index was estimated on the following market share assumptions:[...]

³² For details of the situation in 1996 see Competition Authority, *Balcas Report*, paragraph 4.5.

4.14. The considering the sale of roundwood in 1998, the Competition Authority concluded that:

Coillte's dominance is sustained not only by its near monopoly over roundwood sales in the State, but also by three significant barriers to enter this market: (1) the phytosanitary ban on imports of raw, unbarked timber into the State, (2) high transport costs of forestry products relative to value and (3) the long lead time between tree planting and harvesting. Because of these three barriers to entry, Coillte will continue to have a dominant position in the roundwood market in the State for the foreseeable future.³³

4.15. Although there has been some relaxation on the ban on unbarked timber, as noted above, these three barriers to entry described above still hold today.

Pulpwood

4.16. Coillte accounts for nearly [85-90]% of the pulpwood market on the island of Ireland. The HHI is, not surprisingly, well above the 1800 threshold.³⁴ Coillte market share in pulpwood is much higher than in roundwood because there are no imports of pulpwood, whereas there are some, albeit small, imports of roundwood from Scotland.

Table 7
Market Shares (m³), Pulpwood, the island of Ireland, 2005

Supplier	Market Share (%)
Coillte	[85-90]
Northern Ireland Forestry Service	[5-10]
Private ³⁵	[0-5]
Total	100
Summary Measures	
C ₁	[85-90]
HHI ³⁶	8065

Source: Based on data supplied by Coillte

4.17. There seems little reason to suppose that Coillte has not enjoyed a high market share in pulpwood for some considerable time. However, that is set to change in the next two to ten years as the volume of pulpwood from private forests increases dramatically as shown in Figure 4. This is likely to undermine any market power that Coillte currently possesses in the pulpwood market going forward.

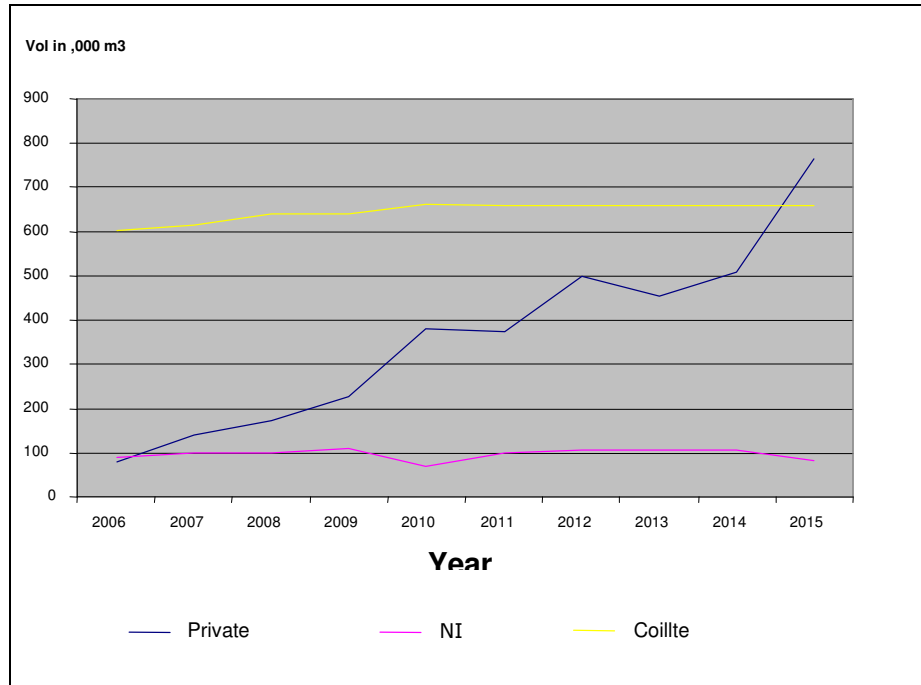
³³ Competition Authority, *Balcas Report*, paragraph 6.1.

³⁴ There were no exports of pulpwood in 2005.

³⁵ Private growers include Irish Forestry Unit Trust, Green Belt Limited, South Western Services and other private growers.

³⁶ The HHI index was estimated on the following market share assumptions:[...]

Figure 4
Estimates of the Supply of Pulpwood, Public & Privates, Island of Ireland, 2006 – 2015



Source: Coford (National Council for Forest Research and Development), 2001, *Forecast of Roundwood Production from the Forests of Ireland 2001-2015*.

- 4.18. There is no equivalent of the TSS for the sales of pulpwood, which is currently sold on short term contracts to large buyers. The buyers of pulpwood are set out in Table 8 below. Large purchasers are likely to be able to exercise some restraint on Coillte in the pricing of pulpwood. However, the largest buyer is Smartply which is owned by Coillte. Weyerhaeuser is the next largest buyer. When it first started production in the State, it was able to negotiate a long term contract with Coillte and would have been in a strong bargaining position prior to entering the market. Coillte may have market power over the smaller purchasers of pulpwood but, as illustrated in Figure 4 above, the supply of pulpwood from the private forestry sector is set to increase dramatically over the coming years, thereby providing smaller purchasers with alternative options for buying pulpwood.

Table 8
Buyers of Pulpwood (m³), Pulpwood, the island of Ireland, 2005

Buyer	Market Share(%)
Smartply	[55-60]
Weyerhaeuser	[15-20]
Spanboard/Sonae Tafibra	[0-5]
Masonite	[0-5]
FINSA	[0-5]
Energy users	[0-5]
Other users	[15-20]
Total	100

Source: Based on data supplied by Coillte

Sawmills – Non-Structural Timber and Wood Residues

- 4.19. Sawmills are responsible for the output of sawn timber products (e.g., non-structural timber and so on) and wood residue or co-products (i.e., woodchips, sawdust and bark). The leading five sawmills process 70% of the roundwood; the leading ten sawmills process 95% of the roundwood. All the evidence suggests that sawmills competitively process roundwood into sawn timber products and wood residues. On the input side, the TSS sets the price of roundwood in a manner which, on the balance of probabilities, is designed to extract maximum rent from the sawmills, while on the output side the sawmills sell into markets in which there is international competition which is likely to restrain the price of their outputs.

MDF

- 4.20. As described in Section 3 above, the geographic market for MDF and OSB products is wider than the island of Ireland. As a result prices are likely to be set by international competition, rather than local market conditions.
- 4.21. Table 9 below presents the estimated market shares of MDF producers in the State in 2005, based on volume (m³) sold in the State.³⁷

Table 9
Estimated Market Shares (m³), MDF, the State, 2005

Supplier	Market Share (%) 2005
Weyerhaeuser	[50-60]
Sonae Group	[10-20]
Kronospan	[10-20]
Norbord	[0-10]
Finsa	[0-10]
Spano	[0-10]
Total	100
Summary Measures	
C ₁	[50-60]
HHI	3464

³⁷ Weyerhaeuser also exported MDF products in 2005.

Source: Weyerhaeuser

- 4.22. Weyerhaeuser exports its MDF products and when sold domestically it must compete with imports (which account for [45-50]% of the market in the State). Thus, despite the large market share of Weyerhaeuser and a HHI of over 1800, the evidence does not suggest that Weyerhaeuser has market power in MDF. Weyerhaeuser's competitors informed the Competition Authority that they have no concerns about the proposed acquisition – in their view, it will not affect the price of MDF products which is set outside the State.

Conclusion

- 4.23. Coillte would appear to be able to exercise market power in the roundwood market and, to a lesser extent, in pulpwood. Such market power in the case of roundwood will not be eroded for 20-25 years and much sooner in the case of pulpwood. In addition the acquisition of Weyerhaeuser means that Coillte will become an even more important purchaser of pulpwood, with its share increasing from [55-60]% to [75-80]% based on 2005 data. Thus it maybe able to exercise monopsony market power in this upstream market.

SECTION FIVE: THIRD-PARTY SUBMISSIONS

Introduction

5.1 The Competition Authority received four extensive written third-party submissions. These were from:

- the Forestry Development Association Co-operative Limited;
- Green Belt Limited;
- the Irish Timber Council; and,
- Glennon Bros Cork Limited.

The Competition Authority also received a large number of letters from individuals, which generally supported the views of the sawmills. The views of each of the four third-party submissions are described below. The text below draws heavily from each of the submissions.

Forestry Development Association Co-operative Limited

5.2 The Forestry Development Association Co-operative Limited ("FDAC") is based in Dungarvan and is owned by its members who are private woodland owners drawn mainly from the farming community. One of the stated aims of the FDAC is to provide a timber harvesting, sales and marketing services to its members. One of the marketing methods used by the FDAC involves the marketing and sale of small thinnings through a co-operative by pooling woodlots into attractive sale units and offering these to the processing sector through a system of sealed-tender bids.

5.3 The FDAC states that most of the pulpwood used by the boardmill sector is currently sourced from Coillte but this will change as supplies of pulpwood from the private sector will increase significantly as their forests mature. The FDAC also states that as sawmills retain and use residues for their own needs in heat and wood pellet production, there will be an increased demand by boardmills for pulpwood from the private forestry sector.

5.4 The FDAC states that increased demand will be welcome news for private growers so long as the market remains competitive. The FDAC is concerned that if competition is reduced or removed following the proposed acquisition, this will be bad news for the producer. The FDAC asks why would there be a need for co-operatives to shop around for the best price if there is only one price available. The FDAC believes that this may have a negative impact on private growers' incentives. The FDAC believes that while both Coillte and Weyerhaeuser have played a very positive and successful role in forestry in Ireland, the proposed acquisition could be a retrograde step for the Irish forest industry and potentially anti-competitive in nature.

Green Belt Limited

5.5 Green Belt Limited ("Green Belt") provides forest management services in the island of Ireland. Green Belt argues in its submission that the proposed acquisition offers Coillte an opportunity to protect and/or

enhance its dominant position in the small and large sawlogs market.³⁸ Green Belt argues that Coillte can use the price offered for pulpwood as a mechanism for disciplining its upstream rivals (i.e., privately owned forests) if and when they become serious players in the market for small and large sawlogs. Green Belt believes that some private forestry growers would likely exit the market, some would remain but would be disciplined and fewer private forests would enter the market in the first place.

5.6 Green Belt argues that this process amounts to vertical foreclosure of the upstream forest market, the effects of which will be directly felt in the small and large sawlogs market. Green Belt believes that there would be an effect in a number of markets:

- *Forest services market:* Coillte would have an increased ability and incentive to squeeze out their competitors (e.g., Green Belt). Privately owned forests could be “cajoled” into accepting a Coillte package that incorporated forestry management services (including sales of the final product);
- *Pulpwood as a source of energy market:* Coillte would have an increased ability and incentive to influence (e.g., foreclose) the development of pulpwood as a source of energy “market”; and,
- *Small and large sawlogs market:* Given that Coillte sells pulpwood to Weyerhaeuser, the proposed acquisition offers Coillte an extra tool to be used in its dealings with sawmills. For example, the mechanics of the TSS appear to try to dissuade sawmills from building up stocks. Post acquisition, the price paid for pulpwood could be used to discipline specific sawmills that appeared to be successfully playing the TSS.

5.7 Green Belt argues that the mechanics of the TSS already represent an abuse of a dominant position, albeit one that is perhaps difficult to “solve” from a competition policy perspective. Green Belt states that there is an obvious competition policy response (i.e., prohibition) to a proposed acquisition that enhances and/or sustains/protects a dominant position.

The Irish Timber Council

5.8 The Irish Timber Council (“ITC”) represents the sawmill industry in the State. The ITC believes that the TSS is designed to allow Coillte to engage in a form of first degree price discrimination so as to obtain the highest possible prices from its customers and capture the entire consumer surplus. In other words, it enables Coillte to behave as a monopolist. The ITC argues that price discrimination between sawmills on the basis of willingness to pay would appear to amount to the application of dissimilar conditions to equivalent transactions placing certain sawmills at a competitive disadvantage. The ITC believes that Coillte could only engage in such behaviour if it had a dominant position.

5.9 The ITC argues that the proposed acquisition has both a horizontal and a vertical dimension.

³⁸ Green Belt distinguishes between the market for small and large sawlogs and the market for pulpwood.

Horizontal Issues

- 5.10 The ITC acknowledges that the proposed acquisition is unlikely to have any anti-competitive effects in the downstream board markets for the production of MDF products and OSB products, respectively. The ITC argues, however, that the proposed acquisition will significantly increase buyer power in the upstream market for pulpwood and residues enabling Coillte to drive down pulpwood and residue prices to the detriment of both sawmills and private forests.
- 5.11 The ITC states that Coillte controls most of the supply of roundwood and could simply “move down the tree”, i.e., retain a larger proportion of the tree as pulpwood in order to make up any shortfall from residue supplies from sawmills. The ITC argues that an immediate effect of this would be to reduce the supply of sawlogs to the sawmills, thus driving up the price of sawlogs.
- 5.12 The ITC also argues that increased buyer power in respect of pulpwood would have implications for private forestry growers. If Coillte controlled the two main users of pulpwood in the State it would be able to drive down the price of pulpwood from thinnings³⁹ to private forestry growers who are in the process of entering the pulpwood and sawlogs markets. While it would have to reduce its purchases of these products in order to do so, it could offset any such reductions by taking a larger proportion of roundwood as pulpwood, while simultaneously pushing up the price of sawlog. The ITC argues that this means Coillte could maintain its market share in the downstream board markets while using its monopoly power to force down woodchip and pulpwood prices and force up sawlog prices.

Vertical Issues – Possible Foreclosure and Potential for Price/Margin Squeeze

- 5.13 The ITC argues that any increase in Coillte’s buyer power with respect to sawmill residues and pulpwood will enable Coillte to foreclose the upstream forestry market, thereby maintaining its dominant position in roundwood products.
- 5.14 The ITC argues that the proposed acquisition will enable Coillte to depress the prices paid to private forestry producers for the pulpwood produced from thinnings. The ITC argues that this will provide a strong disincentive for new entrants to enter the forestry business. In the longer term, Coillte will be able to foreclose entry to the roundwood market by independent private forestry producers.
- 5.15 The ITC further argues that pushing down the price paid for thinnings, or deciding not to purchase thinnings at all from private forestry producers, represents a means of increasing costs to rival producers thus discouraging entry.⁴⁰

³⁹ Forest plantations have to be thinned out after planting in order to maximise the final output of the forest. Thinning tends to take place at five yearly intervals from a period of approximately 18-22 years after planting. The process of thinning creates significant levels of pulpwood for the boardmill sector.

⁴⁰ The ITC provides the following explanation for this argument. Forests take approximately 30-40 years to reach maturity. Revenue from the sale of thinnings, which typically occurs at around year 15, can be regarded as partially offsetting production costs. Denying private producers the opportunity to sell thinnings or forcing down prices effectively raises their production costs.

- 5.16 The ITC also argues that there is another channel by which the proposed acquisition may enable Coillte to maintain its dominant position in the roundwood market. Coillte is engaged in forest management services whereby it enters into arrangements with individual farmers to look after planting, maintenance, thinning, harvesting and sale of the final crop. Where Coillte is responsible for selling the crop, it is sold through the TSS scheme.
- 5.17 There are also private firms engaged in the provision of forest management services. The ITC argues that the proposed acquisition would mean that such firms would face uncertainty in that they could be denied access to the board plants for the sale of thinnings or might be offered less favourable terms than Coillte's clients. The ITC argues that a vertically integrated Coillte would be in a position to offer private forestry providers a guaranteed outlet for thinnings, while private forest management services firms could not. This is likely to result in the exit of such firms and Coillte securing some degree of control over existing private forests.
- 5.18 The ITC also believes that the proposed acquisition may have potential competition effects for the sawmilling industry. The proposed acquisition would enhance Coillte's market power, enabling it to reduce the price of residues and simultaneously increase the price of sawlogs by "moving down the tree". The ITC argues that Coillte would have the power to engage in a form of margin squeeze in order to weaken the sawmills financially with a view to acquisition. The ITC also argues that the fact that Coillte is a State-owned company needs to be considered. Even if market circumstances suggested that a "margin squeeze" strategy designed to weaken the sawmills with a view to acquisition might not make sense for a profit-maximising firm, such a strategy may be attractive to a public sector monopoly.
- 5.19 In a further submission to the Competition Authority, the ITC elaborates on its views concerning the potential for margin squeeze by Coillte. The ITC argues that one way for Coillte to undertake a margin squeeze strategy would be to make it a condition in respect of the sale of timber to the sawmills that any wood residues must be sold back to Coillte at a depressed price. Currently, in the case of pulpwood, Coillte sometimes impose a buyback obligation, i.e. an obligation on the sawmills to sell pulpwood to Coillte at the roadside. There is no system for how this is decided, you simply find out how the pulpwood is being handled when the material is offered for sale, which is one month before it goes up for auction. The ITC is concerned that if the proposed merger goes ahead, Coillte could adopt a similar practice in respect of woodchips, i.e. it could make it a condition of selling a given package of sawlogs that the woodchip residues must now be sold back to Weyerhaeuser/Coillte and that it could force down woodchip prices by imposing such conditions.
- 5.20 The ITC argues that imposing such a sell back requirement could be regarded as an additional instrument to enable Coillte to capture monopoly rents. The ITC notes that it can be argued that as Coillte has a monopoly position in the upstream market for roundwood that it can capture all of the monopoly rents at that stage on the grounds that there is only one monopoly profit. The ITC states that it would appear that the TSS is designed to enable Coillte to do just that. This assumes that the TSS is efficient at extracting the full monopoly rent. The ITC argues that it may not be, or Coillte's own internal inefficiencies mean

that it may not be capturing the full monopoly rent. The proposed transaction would provide it with an additional mechanism for capturing monopoly rents.

Glennon Bros Cork Limited

- 5.21 Glennon Bros Cork Limited (“Glennon Bros”) is one of the largest sawmills in the State. Glennon Bros states that as one of the largest purchasers of sawlog from Coillte, it is at risk of Coillte engaging in a margin squeeze by “moving down the tree”, thus creating a shortage in sawlog and forcing up their price. Glennon Bros cites the Jaakko Poyry report which notes that Irish sawmills are already paying one of the highest sawlog prices in Europe. Glennon Bros argues that any increase in sawlog costs that is not market-related will have a detrimental effect on the survival of its business.
- 5.22 Glennon Bros also argues that the proposed acquisition removes all competition from the market for pulpwood. This development will foreclose the possible entry of new entrants into the sector, further increasing Coillte’s dominance. Glennon Bros states that any private sale of sawlogs must have a market for pulpwood, which will now be 100% controlled by Coillte.
- 5.23 Glennon Bros is the single biggest supplier of woodchips to Weyerhaeuser. In 2005, this represented approximately 25% of Weyerhaeuser’s total woodchip intake. Glennon Bros is very concerned about Coillte’s position, post-acquisition, as a dominant sawlog supplier and a dominant woodchip purchaser. Glennon Bros states that the threat of “moving down the tree” effectively forces it to sell to Coillte irrespective of the price obtained. Glennon Bros argues that the option of exporting woodchip is not available because if it reduces sales to Weyerhaeuser, Coillte will “move down the log” thus creating a shortage in sawlog and forcing up sawlog prices.

SECTION SIX: COMPETITIVE ANALYSIS – ALLEGED THEORIES OF CONSUMER HARM

Introduction

6.1 In this section, the issue of whether or not the merger will result in a substantial lessening of competition (SLC) is addressed. Three alternative theories of consumer harm are described in detail:

- Tying theory of consumer harm;
- Margin Squeeze theory of consumer harm; and,
- Disincentive to entry theory of consumer harm.

These theories of consumer harm build upon the Competition Authority's analysis of the merger and the views expressed in the four third-party submissions described in Section 5 above.

6.2 There are several parameters or caveats that should be noted in the merger analysis that the Competition Authority presents in this section. These contextualise the merger analysis.

6.3 First, the analysis of the Coillte/Weyerhaeuser merger is concerned with the specific competitive effects that flow from the merger. These would appear to be primarily a combination that, as a result of the merger, Coillte is likely to have increased monopsony power in the purchase of pulpwood, combined with its existing market power in upstream markets such as roundwood. The fact that it has market power in these upstream markets is not a result of the merger.

6.4 Second, the Competition Authority's *Merger Guidelines* typically use a two year time horizon in considering the competitive effects of a merger.⁴¹ However, in the instant case a longer time horizon – up to 20 to 25 years – is used in examining the impact of the merger, reflecting the production cycle of growing and harvesting trees.⁴²

6.5 Third, in examining each of these theories of consumer harm, the Competition Authority has considered whether post-merger there is both the *incentive* and the *ability* "for merging firms to exploit their new portfolio of activities in a way that would be harmful for consumers."⁴³ This reflects that it is consumers that the SLC is concerned with not competitors or suppliers of the merger entity.

6.6 Fourth, in examining the counterfactual in a merger case, it is usual to consider a scenario under which the merged entity has the potential to raise prices because of the merger. In the Coillte/Weyerhaeuser merger, the situation is different. As argued in paragraph 4.10 above, the operation of the TSS will, on the balance of probabilities, result in the maximum price being realised and the alleged impact of the merger is to allow this situation to continue rather than for the merger to result in a higher price compared to the present.

⁴¹ See, for example, the discussion in relation to entry, Competition Authority, *Merger Guidelines*, paragraph 5.3.

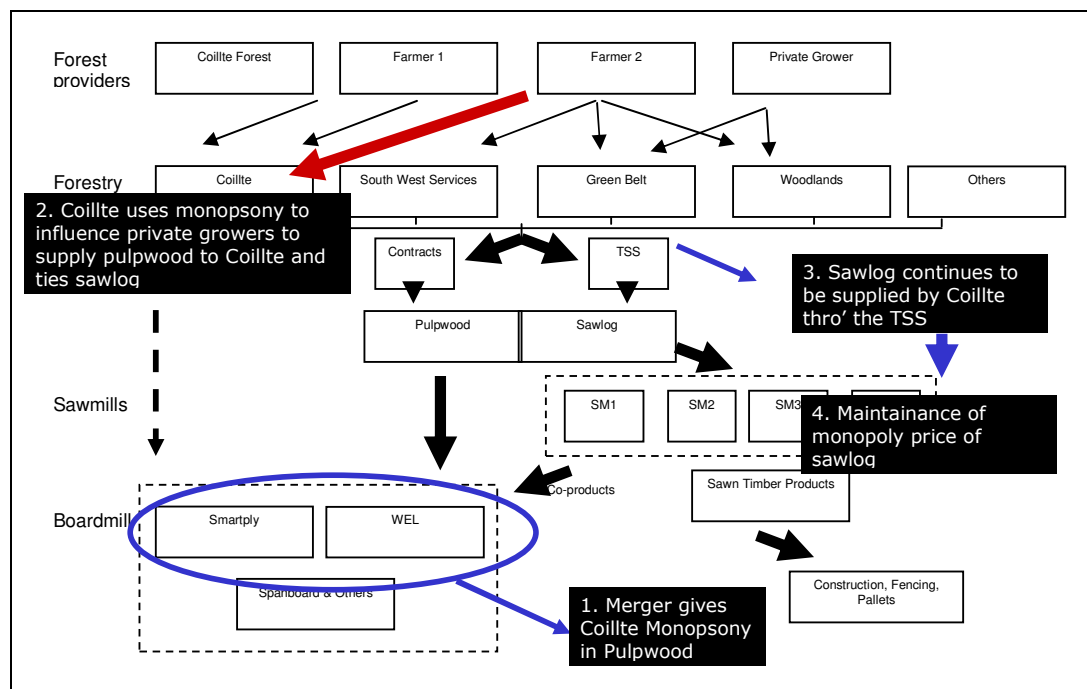
⁴² See the discussion in paragraphs 2.3-2.16 above.

⁴³ EAGCP, *Ten Principles*, p. 5.

Tying Theory of Consumer Harm

- 6.7 This theory of consumer harm postulates that Coillte, post-acquisition, can tie the sale of sawlog to pulpwood through long-term agreements with private forestry growers with the effect that the price of sawlog in the future is higher than it otherwise would be. Thus, final consumers will be denied the benefit of the expected reduction in the price of the outputs of the sawmills.
- 6.8 The tying theory of consumer harm can be considered a variant of the output foreclosure theory discussed by Coillte in its Notification to the Competition Authority. Coillte considered whether the merged entity would gain control of a sufficiently large proportion of the demand for pulpwood available to private forestry growers to enable it deny these growers the ability to sell their pulpwood on competitive terms. The Competition's Authority's tying theory builds upon this scenario and seeks to identify an incentive and ability for the merged entity to pursue this course of action and a resulting consumer detriment. The theory is illustrated in Figure 5 below.

Figure 5
The Tying Theory of Consumer Harm



Source: Competition Authority

- 6.9 Coillte currently supplies pulpwood to SmartPly and Weyerhaeuser to be used in the manufacture of OSB and MDF products, respectively. If the merged entity had control over the distribution of pulpwood produced by private forestry growers, it could use that power to force growers to sell their sawlog (which will become available in 2020-2025) to Coillte. As part of the process of producing sawlog, private forestry growers need to thin their trees which results in pulpwood. If Coillte was the only means by which the private growers could sell their pulpwood, it may be able to make purchasing the pulpwood

conditional on those growers also agreeing to sell their sawlog to Coillte. One mechanism by which this could be achieved would be by requiring private growers to enter into long-term forestry management contracts that commit their sawlog to Coillte's TSS.⁴⁴

- 6.10 Coillte currently occupies a dominant position in the market for roundwood in the island of Ireland. This means Coillte, on the balance of probabilities, extracts the full monopoly price for sawlogs from sawmills through the operation of the TSS. However, as explained in Section 4 above, Coillte's market power is likely to be challenged in 2020-2025 when there will be a significant increase in the supply of sawlog from the private sector. It is reasonable to anticipate that Coillte's ability to extract the full monopoly price for sawlog through the operation of the TSS will, other things being equal, be significantly undermined when supplies of sawlog from private growers begin to enter the market. In effect, one would expect the price of sawlog to decline as the level of competition increases with a consequent fall in the price of processed timber products produced by Irish sawmills.
- 6.11 If private growers agreed to sell their sawlog to Coillte in order to have a route to market for their pulpwood thinnings, this would enable Coillte to maintain its market power in the supply of sawlog in the future and allow it to continue, on the balance of probabilities, to extract the full monopoly price from sawmills for sawlog.
- 6.12 For the tying theory of consumer harm to be credible, Coillte must have:
- The incentive to tie sawlogs to pulpwood;
 - The ability to tie sawlogs to pulpwood; and,
 - There must be demonstrable harm to competition/consumers.

Each is considered in turn.

Tying Theory of Consumer Harm - Incentives

- 6.13 Coillte's incentives to tie sawlog to pulpwood rest on the following two assumptions:
- 1) As Coillte's share of output of the roundwood market diminishes (as supplies of private sector sawlog become available), the tying of sawlog to pulpwood allows Coillte to control the supply of pulpwood and sawlog in the future; and,
 - 2) Coillte can use its market power in the supply of roundwood to maintain, on the balance of probabilities, the monopoly price it currently achieves for sawlog, through the operation of the TSS, in the State in the future.
- 6.14 Coillte is well aware that its current position of market power in the supply of roundwood will be eroded in 2020-2025 when private sector

⁴⁴ Coillte currently offers a wide range of forestry management service contracts to private growers, ranging from a low level of involvement (e.g. advisory services) to full services, which are less commonly availed of by private growers and which include managing, marketing and harvesting services. See Section 4 above for further discussion.

sawlog becomes available. It is reasonable to anticipate that Coillte's ability to extract the full monopoly price from sawmills for sawlog through the TSS will, other things being equal, be significantly undermined when supplies of sawlog from private growers begin to enter the market. Thus, Coillte has a clear incentive to maintain the monopoly price it currently achieves, on the balance of probabilities, for sawlog in the State going forward.

Tying Theory of Consumer Harm - Ability

6.15 Coillte's ability to tie sawlog to pulpwood rests on the following:

- The economics of pulpwood and sawlog are such that private forestry growers would allow their future sawlog output to be tied to their recurrent pulpwood output;
- There are no alternative outlets to the merged entity for private growers' pulpwood; and,
- As a result of the first two conditions, Coillte has sufficient control of pulpwood demand to exert undue influence over existing private growers' business decisions.

Coillte does not have the ability to tie sawlog to pulpwood for four reasons.

6.16 First, the relative value of pulpwood and sawlog are such that private growers would not be willing to forego the option of deciding how and where to sell their sawlog solely in order to secure a market for their pulpwood. Indeed, the value of thinnings may be sufficiently low that, in the absence of any route to market outside of Coillte, growers would prefer to dispose of their thinnings at zero revenue in order to retain control of their sawlog. There is a substantial difference in the unit price achieved between pulpwood and sawlog. The average delivered in price of pulpwood in 2005 was €[x]/m³ compared with large sawlog prices of €[2x]/m³ and small sawlog prices of €[1.2x]/m³. However, the real impact on value is greater than the difference in unit prices. This is because when a forest is harvested for sawlog (i.e. clearfell), the majority of the volume is contained in the higher value sawlog material (i.e., the lower part of the tree has greater volume than the top pulpwood part). This means that the main value to a forest grower is derived from the sawlog material which is harvested at the end of the crop life. Private growers will therefore be unwilling to compromise the long-term major sawlog returns in order to secure relatively low-value pulpwood sales in the short term.

6.17 There is a time element to private growers' decisions. Sawlog is produced over a relatively long time scale, while thinning must occur on a regular basis. A private grower may therefore be faced with a trade-off between the certain benefit today of being able to sell its pulpwood and the uncertain future benefit of selling its sawlog independently relative to committing it to Coillte's TSS. However, using plausible values for the returns from sawlog and thinnings, discounted at an appropriate discount rate, confirms that the major

return comes from the sawlog resulting from the clearfell at the end of the life of the tree.⁴⁵

- 6.18 Second, there are a number of potential alternative outlets for pulpwood other than SmartPly and Weyerhaeuser. As noted in Table 8 above currently [20-25]% of pulpwood is consumed by buyers other than the merged entity. This is likely to expand as increasingly there are additional uses for pulpwood in the bio-energy sector.⁴⁶ Pulpwood is currently used as a source of biomass energy in many European countries (e.g. Denmark). Given that the price of pulpwood is likely to decline in the coming years as supplies of pulpwood from private growers increase significantly, this is likely to speed up the development of alternative uses for pulpwood in the energy sector. Currently, these potential uses are at a nascent stage but it is likely that they will develop into major players in the pulpwood market.
- 6.19 Third, the discussion to date has focussed on economic markets but there is also a political market that is likely to influence the ability of the merged entity to tie pulpwood to sawlog. Private forestry growers, of which there are approximately 14,000 in the State, are mainly farmers who have a strong representation through the Irish Farmers Association ("IFA"). The IFA will not want large numbers of farmers entering into long-term contracts which commit their pulpwood and sawlog to Coillte. The IFA will be concerned that going forward Coillte will not have sufficient demand in its downstream boardmills (i.e., SmartPly and Weyerhaeuser) to absorb the increased supply of pulpwood from private growers with the consequent effect that some farmers may decide not to thin their forests, thereby reducing the yield (i.e., the total volume of roundwood) of the final crop.
- 6.20 Any attempt by Coillte to induce farmers to enter into long-term contracts which commit their pulpwood and sawlog to Coillte is likely to lead to intense efforts by the IFA to encourage the government to subsidise the development of alternative uses for pulpwood. This is likely to discourage farmers from entering into long-term contracts with Coillte.
- 6.21 In addition, there is a large number of competing forestry management service providers and these are regulated by the Forestry Service and represented by the Irish Timber Growers Association ("ITGA"). The ITGA would also be expected to represent its members through activities and measures in response to any attempt by Coillte to induce farmers to enter into long-term contracts that tie pulpwood and sawlog.
- 6.22 Fourth, as the Competition Authority is satisfied that there will be no SLC post-merger, no commitment was sought from Coillte concerning the tying of sawlogs and pulpwood in long-term contracts. The Competition Authority would also note that any long-term contracts entered into in the future by Coillte with a large number of private forestry growers that tie sawlog to pulpwood might raise concerns under Section 4(1) of the Act. Notwithstanding that Coillte offered to give a commitment to the Competition Authority that they would not

⁴⁵ Annex B illustrates why it is highly unlikely to be in a private grower's interest to enter into a long-term contract that ties the sale of sawlogs to the sale of pulpwood.

⁴⁶ For a discussion of the future possibilities of biomass energy in the State, see <http://www.sei.ie/index.asp?locID=261&docID=-1>.

tie sawlog to pulpwood in contracts with private forestry growers, in the absence of a finding of SLC and recognizing that Coillte is required to comply with the law, the Competition Authority did not find it necessary to accept the proffered undertaking from Coillte.

- 6.23 In conclusion, Coillte does not have the ability to tie sawlog to pulpwood, thereby causing a SLC.

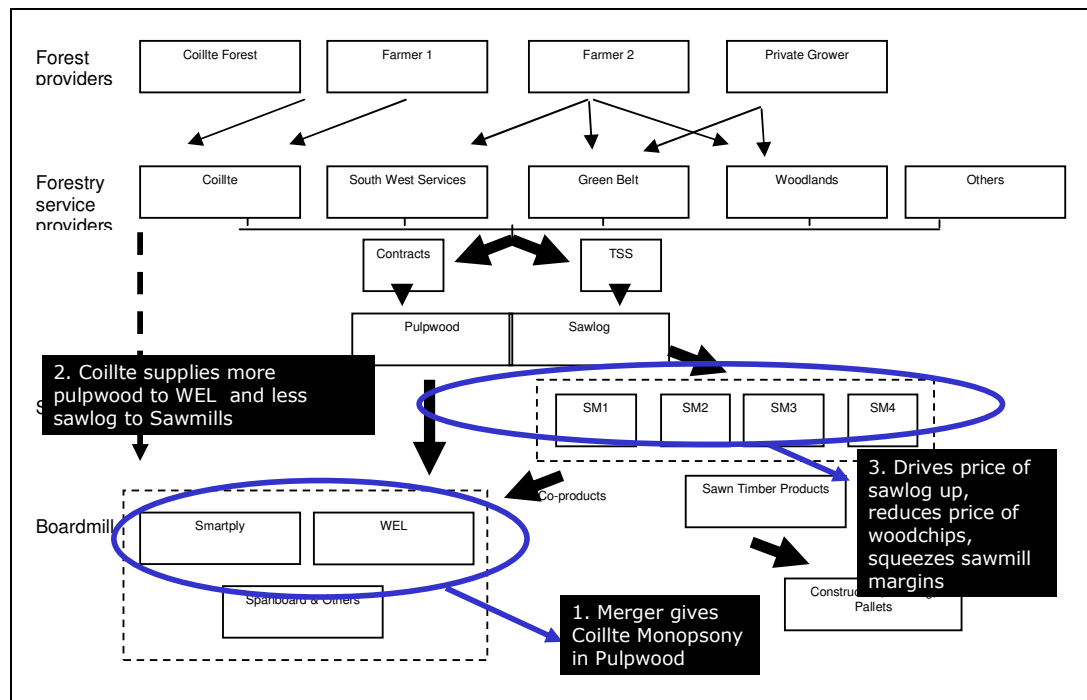
Tying Theory of Consumer Harm – Demonstrable Harm to Consumers

- 6.24 For the tying theory of consumer harm to be credible, there must be demonstrable harm to consumers. As outlined above, Coillte does not have the ability to tie sawlog to pulpwood through long-term contracts. As a result, future price competition for sawlogs will develop between Coillte and private forestry growers, thereby undermining Coillte's ability to maintain the monopoly price for sawlog in the future.

Margin Squeeze Theory of Consumer Harm

- 6.25 This theory of consumer harm postulates that Coillte, post-acquisition, can squeeze the margins of sawmills by driving up the price of sawlog and driving down the price of woodchips. This increase in sawlog prices would be passed on to final consumers by way of increased prices for the output of sawmills.
- 6.26 A different but related theory of consumer harm focuses on potential competition effects in the sawmilling industry. Sawmills currently produce residues (woodchips, sawdust, and bark) as a by-product of turning sawlogs into processed timber products. Woodchips represent approximately 70% of the total residue output in the sawmill industry and it is important for the proper functioning of sawmills that woodchips are sold within 2-3 days and do not accumulate in the sawmill. Sawmills sell 60% of their woodchips to Weyerhaeuser. As explained in Section 2 above, MDF products can theoretically be manufactured from 100% pulpwood through to 100% woodchip. Weyerhaeuser's formulation is generally 80-90% woodchip with 10-20% pulpwood.

Figure 6
The Margin Squeeze Theory of Consumer Harm



Source: Competition Authority

6.27 The Competition Authority is concerned that the proposed acquisition would provide Coillte with the ability and incentive to substitute pulpwood for woodchip in the production of MDF products by “moving down the tree”, i.e. retaining a larger proportion of the tree as pulpwood in order to make up any shortfall in woodchip supplies from sawmills. The impact of this strategy would be to reduce the price of woodchips and simultaneously increase the price of sawlogs,⁴⁷ thus squeezing the margins of sawmills.⁴⁸ This may reduce the future incentive on the part of sawmills to invest in more innovative and efficient production techniques, with a consequent decline in the quality (and, possibly, quantity) of domestic sawn timber products. This is illustrated in Figure 6 above.

6.28 For the margin squeeze theory of consumer harm to be credible, Coillte must have:

- The incentive to engage in a margin squeeze;
- The ability to engage in a margin squeeze; and,
- There must be demonstrable harm to competition/consumers.

Each is considered in turn.

⁴⁷ The price of sawlogs would increase as a result of Coillte sacrificing a small amount of sawlog for pulpwood, thereby reducing the amount of sawlogs sold through the TSS.

⁴⁸ Sawmills reported to the Competition Authority that they currently operate on net margins of 2-3%. Thus, even though woodchips account for only a small proportion of sales in revenue terms, a relatively modest reduction in woodchip prices accompanied by a similar modest increase in sawlog prices would be sufficient to undermine the economic viability of many sawmills.

Margin Squeeze Theory of Consumer Harm - Incentive

- 6.29 Coillte's incentive to squeeze the margins of sawmills rests on the assumption that Coillte is not currently extracting the maximum monopoly price for sawlog from sawmills. Coillte's incentive is to optimise the monopoly rent for sawlogs while at the same time allowing sawmills to earn sufficient margins to continue operating. Coillte is aware that beyond a certain level of sawlog prices, sawmills would be unable to profitably compete against imported finished timber products, and would exit the business, leaving the entire Irish demand for timber to be met by imports, and Coillte with no Irish outlet for its sawlog. Coillte would therefore recognise that raising the price of sawlog to the point at which the viability of the sawmill sector is threatened is counter to its own interests, and would not seek to do so.
- 6.30 Coillte currently has an incentive to squeeze the sawmills' margins in order to earn the full monopoly price for sawlog. It currently, on the balance of probabilities, achieves this through the operation of the TSS. The proposed acquisition therefore does not alter Coillte's incentives.

Margin Squeeze Theory of Consumer Harm - Ability

- 6.31 Coillte does not need to acquire Weyerhaeuser in order to squeeze the margins of the sawmills – it can already do this pre-merger. Coillte currently produces enough pulpwood to enable it to drive down the price by “moving down the tree”, thereby enticing Weyerhaeuser to substitute pulpwood for woodchip in the production of MDF products with the consequent effect of reducing the price of woodchips and simultaneously increasing the price of sawlogs, thus squeezing the margins of sawmills.
- 6.32 Furthermore, as mentioned above, the supply of pulpwood is set to double in the State by 2015, irrespective of whether or not the merger is approved. As a result, the price of pulpwood will decline thereby affecting the incentives of Weyerhaeuser to substitute pulpwood for woodchip.
- 6.33 In conclusion, the proposed acquisition does not alter Coillte's ability to engage in a margin squeeze.

Margin Squeeze Theory of Consumer Harm – Demonstrable Harm to Consumers

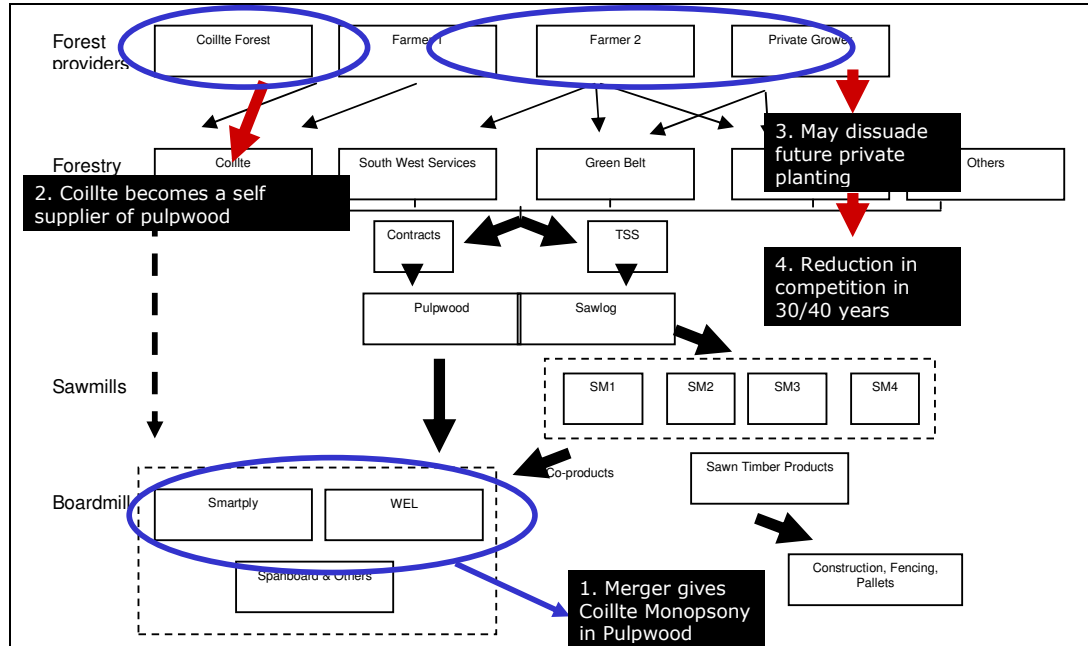
- 6.34 Since the proposed acquisition does not alter the incentive or ability of Coillte to engage in a margin squeeze strategy, there is no evidence to indicate that consumers will be harmed by the proposed acquisition. Furthermore, evidence in the Competition Authority's possession indicates that any margin squeeze strategy engaged in by Coillte, pre- or post-merger, would not result in higher processed timber prices, but only a substitution towards imports. This is because the ready availability of imported processed timber constrains domestic prices and prevents their moving above the international price.

Reduced Entry Theory of Consumer Harm

- 6.35 This theory postulates that as a result of becoming a monopsony buyer of pulpwood post-merger, Coillte becomes a self sufficient supplier of

pulpwood. As a consequence, potential private forestry growers may be dissuaded from planting forests (or may postpone planting for a few years to see if alternative outlets for pulpwood develop in the meantime). The effect will be a reduction in the level of competition in the market for roundwood in 30-40 years time as Coillte's market power will be larger than it would otherwise have been had entry taken place. This increased market power may translate into higher sawlog prices and, therefore, higher domestic processed timber prices. This theory of harm is illustrated in Figure 6 below.

Figure 6
The Reduced Entry Theory of Consumer Harm



Source: Competition Authority

6.36 For the reduced entry theory of consumer harm to be credible, Coillte must have:

- The incentive to weaken the level of competition it faces in the future;
- The ability to weaken the level of competition it faces in the future; and,
- There must be demonstrable harm to competition/consumers.

Each is considered in turn.

Reduced Entry Theory of Consumer Harm - Incentive

6.37 As described in paragraph 6.10 above, Coillte's near monopoly position in the market for roundwood in the State will be eroded in the future when private growers' sawlog enters the market. Coillte therefore has a clear incentive today to weaken the level of competition that it faces in the roundwood market in the future. However, this incentive exists irrespective of whether or not the proposed acquisition is approved.

Reduced Entry Theory of Consumer Harm - Ability

- 6.38 Post-acquisition, Coillte will have the ability to become self sufficient in terms of its demand for pulpwood.⁴⁹ As a consequence, private growers will now face increased uncertainty about where they will be able to sell their pulpwood. Pulpwood makes up 5% of the net present value of a private grower's standings at current pulpwood prices. If there is no commercial market for pulpwood, it becomes a cost that equals about 20% of the total value of the standing per hectare.
- 6.39 Alternative uses for pulpwood are currently at a nascent stage in the State and there is a legal barrier to exiting the industry. With the additional uncertainty surrounding outlets for pulpwood as a result of the merger, some farmers may decide not to plant. Farmers may delay planting until the uncertainty about the extent of the bio-energy market is resolved.
- 6.40 Any ability Coillte may have to weaken the level of competition it faces in the future will not be increased by the merger for the following four reasons:
- There is going to be a large excess supply of pulpwood in the coming years as private growers begin to thin their forests for the first time. Private growers have already had to face up to this uncertainty.
 - The supply of roundwood is relatively elastic at any point in time. About 20-30% of the total volume of roundwood from a forest comes from thinnings. There is considerable flexibility about when to thin. An increase in sawlog prices may induce early thinning. An expected deficit in the supply of finished sawlogs may cause some thinnings to be delayed.
 - A sharp unexpected fall in planting might bring about a change in the subsidy regime. For example, the legal barrier to exit may be removed – thereby rendering the decision to plant no longer irreversible. Evidence from other countries (e.g., Denmark) indicates that micro bio-energy projects represent a very important market for pulpwood.
 - Relative to the other uncertainties in this industry (e.g., will the spruce beetle arrive and, hence, logs will trade internationally?, will the boardmill plants continue to operate?, etc), the impact of the proposed merger is marginal. Given that planting already occurs despite such uncertainty, this small additional uncertainty is not likely to change private growers' incentives dramatically.
- 6.41 In conclusion, any ability Coillte may have to weaken the level of competition it faces in the future will not be increased by the merger.

Reduced Entry Theory of Consumer Harm – Demonstrable Harm to Consumers

⁴⁹ In 2005 Coillte provided [95-100]% of Smartply's demand for pulpwood and [85-90]% of Weyerhaeuser's.

- 6.42 Given that Coillte's incentive and ability to weaken the level of competition it faces in the future will not be increased by the merger, no realistic SLC or harm to consumers can emerge from this proposed merger.

Conclusion

- 6.43 In sum, the Competition Authority's analysis has concluded that none of the three theories of consumer harm stands up to serious scrutiny and as a result the merger will not lead to SLC and therefore should be cleared.
- 6.44 Nevertheless it should be noted that if the Competition Authority is incorrect in its analysis and competition problems occur as a result of the merger, then the Competition Authority has the power to investigate behaviour which it believes raise concerns under the Act. Thus, for example, if a large number of private forestry growers in the future were to enter into long-term agreements with Coillte that tie sawlog and pulpwood, the Competition Authority has the power to investigate whether such agreements raise any concerns under the relevant provisions of the Act.⁵⁰

⁵⁰ Furthermore it should be noted that the Authority has brought a successful case for tying in the High Court in the case against the Irish League of Credit Unions. For details see Competition Authority, *Annual Reports*, various issues.

SECTION SEVEN: DETERMINATION

7.1. In light of the foregoing conclusions, and having completed its full investigation in relation to the proposed transaction, the Authority, in accordance with Section 22(3) (b) of the Act, has formed the view that the result of the proposed acquisition by Coillte Teoranta of Weyerhaeuser Europe 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. 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, concluding that there were none.

For the Competition Authority

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Dr Paul K. Gorecki,
Member of the Competition Authority

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Carolyn Galbreath
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ANNEX A: TRADE STANDARDS RELATING TO PROCESSED TIMBER PRODUCTS

A.1 Information provided by Coillte indicates that there are no Irish standards relating to processed timber products that operate as barriers to the importation of such products. Coillte provided the following essential facts:

- There are only a few Irish standards relating to processed timber products, the main ones being IS 444 (the use of structural timber in buildings) and IS 193 (Timber trussed roof rafters). There are a number Irish Standards that are CEN (the European standards body) standards covering processed timber, but these are European standards adopted by Ireland.
- Where a European standard (EN) exists, the National Standards Authority of Ireland will not develop an Irish standard that would be in conflict with the EN. In addition, the State is obliged, as an EU Member State and as a participant in CEN, to adopt European standards as they become available and to withdraw any conflicting Irish Standard. This has already happened (for example, with the withdrawal of SR11 and its replacement with IS 444, which refers to the European strength class system for structural timber). At present, both national and European design standards are allowed to co-exist until 2010. In 2010, all Irish timber design standards, such as IS 444 and IS 193, are due to be withdrawn or perhaps amended to reflect the European design code Eurocode 5 (or, to give its proper designation, IS EN 1995-1-1).
- Even where Irish standards exist, designers, architects and engineers operating in the Irish market will frequently specify conformity with non-Irish standards (usually British Standards but occasionally DIN standards) which may be acceptable to the trade in the State. In other words, the reality in the Irish market place is that a variety of standards, both Irish and non-Irish, are used in relation to such products.
- An important aspect of the Irish processed timber market is the fact that Irish trees grow significantly more quickly than the EU average (about 2.5 times faster than trees in Scandinavia, where the majority of imports originate). This characteristic has an important impact on the physical properties of Irish timber such that the raw material tends to be inherently lower in strength and lower in other quality attributes such as the level of knots and visual appearance. Clearly, therefore, any strength or quality threshold established by an Irish standard could easily be met and exceeded by imported timber products and could not operate as a barrier to trade.⁵¹

⁵¹ These quality differences explain, at least to some extent, the high volume of imported processed timber products on the Irish market, as well as the price premium earned by imported timber products when compared with products made from home-grown trees.

ANNEX B: RELATIVE VALUES OF PULPWOOD AND SAWLOG

- B.1 Using the figures yield tables and their breakdown into the various outputs, it is possible to calculate the relative net present values of pulpwood and sawlog to a private forestry grower. This involves discounting back the returns to both products in the future into today's terms.
- B.2 Pulpwood is predominantly produced in the first rounds of thinnings, with over 50% of the total pulpwood produced coming from the first thinning. In subsequent thinnings and in the clearfall, it is sawlog that comes to completely predominate.

Table B.1
Volume of Production of Sitka Spruce, (m³) per ha, by Age of Crop, Yield Class 18

	Pulpwood	Small Sawlog	Large Sawlog	Total
1st thin	50	13	0	63
2nd thin	23	33	7	63
3rd thin	10	29	24	63
Clearfell	15	45	312	372
	98	120	343	561

Source: British Forestry Yield Tables

- B.3 Stumpage values show, for a given final delivered price, the value of the different types of wood as they stand in the forest. These vary from €1 per cubic metre for pulpwood (on the basis of average haulage and harvesting costs from Tables 2 and 3 above) to €15 for small sawlog to €40 for large sawlog.

Table B.2
Stumpage Value by Production of Sitka Spruce, (€), per hectare, by Age of Crop, Yield Class 18.

	Pulpwood	Small Sawlog	Large Sawlog	
Stumpage Value	€1	€15	€40	Total
1st thin	€50	€198	€0	€248
2nd thin	€23	€491	€277	€792
3rd thin	€10	€435	€958	€1,402
Clearfell	€15	€670	€12,499	€13,184
	€98	€1,794	€13,734	€15,626

Source: Competition Authority

- B.4 Table B.2 above shows the relative values at the time of harvesting on the basis of current prices. Clearly, whilst there is a large payoff from large sawlog at clearfell, this is some 15 years after the first thinnings. To judge the relative value of the various outputs on a comparable basis, these figures have to be discounted back into today's values.
- B.5 This requires that some assumption is made about the way in which farmers value money today versus money in the future, which is termed their discount rate. A high discount rate indicates that the farmer places a higher value on money today than money in the future. A lower discount rate would mean that a farmer would place a

higher personal valuation on flows of money into the future. However, even an older farmer who knows that he will not be alive when clearfell occurs would use the market discount rate if he were thinking of selling his rights to the forests. Otherwise, he would fail to capture the full market valuation of his crop. Figures obtained from a Teagasc report consider a discount rate of 10% in forestry appropriate⁵².

- B.6 Using this discount rate, it is easy to see that the net present value of pulpwood represents a very small proportion of the expected net present value of sawlog (i.e. less than 2% of the total value from the stand).

Table B.3
Discounted Stumpage Value by Production of Sitka Spruce, (€), per hectare, by Age of Crop, Yield Class 18.

Discount Rate	10%				
	Pulpwood	Small Sawlog	Large Sawlog		
Stumpage Value per m ³	€1	€15	€40		
Stumpage Value by Product per ha	Pulpwood	Small Sawlog	Large Sawlog	Total	Year
1st thin	€7	€27	€0	€34	21
2nd thin	€2	€41	€23	€66	26
3rd thin	€1	€23	€50	€73	31
Clearfell	€0	€22	€404	€426	36
	€10	€112	€477	€600	

Source: Competition Authority

- B.7 This result is robust to higher discount rates and to higher stumpage values for pulp relative to sawlog. Pulpwood would have to realise stumpage values close to small sawlog with a market discount rate of 30% before pulp would become the main driver of the net present value calculation. Neither of these are reasonable assumptions to make. Clearly, it would be countless times more unlikely that both held at the same time. Thus, it can be shown to a high degree of certainty that it will not be in a private grower's interest to enter into a long-term contract that ties the sale of sawlogs to the sale of pulpwood.

⁵² <http://www.teagasc.ie/research/reports/ruraldevelopment/4256/eopr-4256.htm>

