

Paper

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Executive Summary

This paper has been produced to provide a more thorough analysis of economic impacts of decoupling on the market for Single Farm Payment Entitlements and land markets. Landowner – tenant considerations have figured large in the debate of these issues. The results suggest caution to those making strong, and unfounded, statements on these subjects. The paper analyses these issues in seven steps, and concludes.

- I CAP support is already fully capitalised in asset values in the food chain including agricultural land values and fully taken into account in rents. If the total support is not rising then there is no extra value to accrue to the land.
- II Agricultural markets and land tenure arrangements are complex; there are some important variations between commodity support systems within this big picture. Also rents, the price of grass keep and quota values have all varied substantially outside any changes in the support arrangements.
- III The introduction of the decoupled Single Farm Payment could have a beneficial effect on farming income. This in turn could then partly be reflected in rises in rents and land values. However, there are counteracting policy changes in the package which send rents and land values in the opposite direction. The outcome is difficult to judge.
- IV To understand impacts of decoupling on land sale and rental markets, we first have to understand how the new market for Entitlements will work, the core of the paper is the development of such a framework.
- V The choices of how to allocate the Single Farm Payment will have impacts on the Entitlement Market, prices and volumes. Key variables are the extent of land without Entitlement and the variation in Entitlement rates per hectare. Confidence of landowners in the let sector is also an important factor. An Historic distribution is likely to be associated with a larger volume of trade, Hybrid and Regionalised payments will have smaller volume of trade. The price of entitlement is indeterminate without further evidence.
- VI There are additional factors in the first year of Entitlement trading, particularly the existence of surplus Entitlement, which could be very influential in the characteristics of this market. Government decisions in process will be decisive.
- VII To the extent that Entitlements capture part of the capitalised value of Government support then this will draw-out, value from land. That is, we suggest an inverse relationship between Entitlement price and land price & rent. High priced Entitlements will accompany low land price and rent, and vice versa. As we are not able, definitively, to demonstrate that any particular distribution system for the Entitlements will result in high Entitlement prices, then it is also impossible to conclude that any payment distribution will depress or raise land values or rents.

Conclusion: given the foregoing, suggestions that particular parties (e.g. tenants or landowners) are advocating particular distribution methods because that solution will raise or lower rents are not based on firm foundations. The CLA is concerned that there is such ill-informed commentary on these issues that wrong decisions may be taken on the basis of fallacious arguments. In the debate about the method of allocating the SFP, the concern on the possible impacts on rents and land values should therefore play no further role.

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Decoupled Payment Entitlements, land values & rents¹

A note from the Country Land & Business Association

1 CAP support is already fully capitalised in asset values in the food chain including agricultural land values. If the total support is not rising then there is no extra value to accrue to the land.

1. In any market characterised by numerous players, good information and open competition, government support injected into any one part of that market does not **all** accrue as income to the managers of the business in the directly supported sector. It is shared between all actors including those upstream and downstream too, and is partly capitalised into asset values throughout the chain.
2. Thus, for example, support for cereals, (whether provided by guaranteed prices, production controls such as set aside, intervention purchasing, exports subsidies or import tariffs or a combination of several of these measures) will be not all accrue as income to cereal farmers. Part of the benefit of the support will be 'taken' by suppliers of inputs to cereal farming (in the form of higher input prices than otherwise), and part will also accrue to purchasers of the products of cereal farming (in the form of lower product prices than otherwise). The share-out of the support depends on market power and the responsiveness of supply and demand for the various inputs and products of the supported sector. Generally the more market power other sectors possess, and the less responsive are inputs and products to price, the more the factor owners up and downstream of farming itself can capture of the support provided to farmers.
3. As far as the structure of input markets are concerned, we note that some, e.g. crop protection chemicals, machinery and fertilisers, are supplied by highly concentrated, multinational corporations with considerable market power, others, such as animal feeds, are from more fragmented sectors in which suppliers have little market power. Likewise, the price responsiveness of inputs differ. Most, like seeds, feeds, and fertilisers, are reasonably responsive to price and cost changes. That is additional supplies are easily forthcoming if product prices rise. Other inputs, and the outstanding example is land, are much less responsive in supply. In the short and medium run even if product prices rise greatly, there is almost no ability to bring more land into cultivation. Even in the longer run, and only to a limited extent, can land be cleared, drained, terraced, irrigated and in other ways brought into cultivation.
4. These technical and economic characteristics of input and product markets and downstream processing structures, are well established – and well known. Thus the price and market supports provided under the CAP for the last 40 years has been around long enough, and understood well enough, for all these processes of transmission of the value of the support to be well and truly played out.

¹ The analysis in this paper was greatly Assisted by an in-depth discussion with Jim Ward, head of research at FPDSavills. This does not in any way implicate him in the analysis or conclusions for which the author takes full responsibility.

5. In this context it is well-established, and documented, in the agricultural economics literature that part of the value of the support system is capitalised into inputs, not least the input which is most inelastic in supply, viz. land. However in population dense countries like the UK other influences on land values are at least as strong, and in many if not most locations, stronger than the effects of agricultural policy support. Chief amongst these influences are: development pressure; taxation provisions for land ownership, succession and management; the options for alternative uses; the amenity value of land; and the premium value of farm houses associated with the land.
6. The point is that as a big change in agricultural policy is about to be introduced in 2005, it is reasonable to assert that **all the existing market, price and producer supports under the CAP are already thoroughly capitalised into asset values in farming and up and down-stream of farming, and fully taken into account in farm land rent determinations.** It helps if some orders of magnitude are quoted to put this in context. According to DEFRA figures, the value of total government support to farming through the CAP in 2002 was £3.1b; total income from farming in 2002 was £2.4b, and gross rents paid that year were £0.35b, whereas the total assets of the industry at the end of 2001 was £116b, 82% of which was the value of land and buildings. It can be judged from these magnitudes that there would have to be massive changes in farm support *in toto* to have noticeable impact on total asset values². Casual claims that changes in farm payments will have certain effects on land values therefore should be challenged unless based on detailed analysis.
7. What is proposed in the 2003 CAP reform for payment decoupling is a significant change in the way support is provided which may involve some redistribution of support amongst present beneficiaries, accompanied by a gradual reduction of that support. Of vital importance is that it is *still* necessary for *all* beneficiaries of the support to be in possession of land. The general impact expected of this on land rents and values is therefore expected to be some redistributive effect; rises where the support had risen, and vice versa. But overall, the diminution of support can be expected to bring average land rents and values **down** somewhat. This proposition is reinforced as the new decoupled Single Farm Payment is to be tradable. To the extent that this new asset will capitalise some of the support value, then this will almost certainly mostly be at the expense of support value presently embedded in land. **There is, at this level of generality, no reason to expect additional capitalisation of support into land pushing land values up as many commentators repeatedly suggest.**

II *Agricultural markets and land tenure arrangements are complex; there are some important variations amongst different commodity support systems within this big picture.*

8. There can be little doubt that because, with just one exception, the receipt of agricultural support has in the past required active farming of agricultural land, the existence of that support has been directly or indirectly transmitted to, *inter alia*, land values and rents. This is true for owner occupied land, land let on Agricultural Holdings Act (AHA) tenancies, Farm Business Tenancies (FBTs) and short term

² If supports were, say, immediately halved and, if *in extremis*, farming income halved as a result, then the maximum impact of this on asset values might be the present value of the loss in farming income in perpetuity (discounted, say, at 7.5%), which is £16b (= £1.2b/0.075), a 13% fall in value. This is cited to put into perspective the potential effects on land values of the much smaller farming income impacts of decoupling farm supports.

grazing licences. The one exception has been until this year the possession of milk quota by non-producing quota holders³.

9. To some extent, the specific impacts on land values and on rents, varies according to the nature of the support system and the tenure system.
10. Arable area payments were introduced from 1993 by the MacSharry reforms. Because they were effectively 100% compensation for the price supports of preceding years, there was no noticeable impact on the general level of land values or rents because the total quantum of support to the sector did not change. In short the cereal supports were and remain capitalised into land values. This is clearly indicated by the price and rent differentials between IACS registered and non-IACS registered land⁴. The purchaser, or lessor, of IACS registered land effectively buys access to the payment rights.
11. For the sheep and beef payments there are two important differences compared to arable supports. These supports are also limited by quotas on the number of supported beef and sheep, but the first difference is that the livestock quotas are owned by the farmer, the tenant in the case of let land. For these activities therefore, the value of the price supports which were converted by the MacSharry reform into headage payment rights, then became divided between land which was necessary in order to rear the animals to collect the headage payments, and the quota rights themselves. The shares distributed to each were the result of normal market processes.
12. At the time of introduction of the beef and sheep payments, concerns were expressed that there could be negative effects on land rents and prices. In the event such impacts were scarcely noticed. The explanation was the combination of the stimulus effect of headage payments on production, and the introduction of extensification schemes, in which farmers can qualify for additional payments if they carry their stock at lower stocking rates⁵. The twin effects of the attraction of headage payments and the land scarcity induced by extensification meant that there was active competition to gain access to land to be able to draw the payments. This meant that any withdrawal of value from land into quota value was scarcely detectable. There may be lessons here for Entitlements.
13. The second factor for grazing livestock is the existence of a very active market in short term grazing lets. These are typically for seven months and are an integral part of a wide range of traditional livestock management systems: e.g. the away rearing of breeding stock, and livestock movements associated with the stratified beef and sheep systems as store sheep and cattle move down off the hills for fattening. Grass keep rents have varied widely with changing market conditions. The combination of the economic incentives provided by the sheep and cattle direct payments, including extensification, and this active annual rental market for land ensured that competitive pressures distributed part of the headage payments to rents, and hence in the value of these grazing lands. Part of which, we note in passing, is recognition of environmental value.
14. The case of milk quotas is different again. Until this year (2004) there are no direct payments to producers in the dairy sector. Milk prices are supported by border

³ Since the Thomsen case it has been required that non-producing milk quota holders either become producers or dispose of their quota by 31/03/04.

⁴ IACS registered land could easily trade at 25% above non-registered land. Rents for registered land could be 75% more than unregistered land. The point is that there could also be no premium for registered land depending on quality, location and other circumstances. We cannot stress enough that factors outside the support payments can often have a more decisive effect on land values and rent.

⁵ This in itself introduced an important principle that the higher environmental and landscape value of more extensive grazing systems should be rewarded by higher public payments.

controls (import tariffs, export subsidies), domestic market intervention for the base products, butter and skim milk powder, and by limiting domestic production by milk quotas. The value of this existing support is all already capitalised. Milk Quotas are freely traded by sale and lease and prices have varied enormously with little or no change in the national volume of quotas available. Again that part which is held within farming is shared between the value of quota and the value of land. A twist in the case of milk quotas has been that it was possible, until the 2003 fallout from the Thomsen ruling, for people without cows to hold onto quota. This accentuated the division of support value into land and quota. The switch in dairy policy: the lowering of support prices which is partially (about 60%) compensated by the new dairy premia paid to producers, because it will reduce returns, could be expected to bring some small reduction in asset values in this sector.

III The introduction of the decoupled Single Farm Payment could have beneficial effects on farming income. This in turn could then partly be reflected in rises in rents and land values. However, there are counteracting policy changes in the package which work in the opposite direction and make the overall economic impact difficult to judge.

15. The introduction of a decoupled Single Farm Payment to replace cereal, oilseeds, proteins, set-aside, beef, sheep and dairy payments⁶ is a big step which is likely to have impacts on resource allocation and potentially on resource values in agriculture.
16. To the extent that there is unprofitable production taking place as a result of the requirement to produce an arable crop or keep beef and sheep merely to get the current (coupled) direct payments, then the act of decoupling may, *all other things being equal*, increase farming net incomes⁷. This could come about by the combination of a reduction in output of these products, with some cost savings, yet with the same support payments, and possibly even a small increase in product price⁸. It may also arise as a result of the general more market orientation of farmers. DEFRA economists suggest a big part of the boost in farm incomes comes from this source.
17. The benefits of any such increase in profitability will, naturally, be competed for, or shared out. Input suppliers, and output processors and buyers who have a degree of market support will capture some of this benefit. Those negotiating on behalf of farm labour will naturally seek some share in the increase in farming incomes, and, of course, the providers of inelastically supplied factors such as land, will also tend to share in the rise in farming income too. Thus rent reviews over the coming three years for AHA tenancies, and annual determinations of FBT rents would reflect any such recovery of the earning capacity of land – just as they edged downwards in the

⁶ Dairy premia are to be introduced in three steps starting in 2004, in which support prices are reduced and compensatory payments are given to milk producers in relation to the quota held at the end of March in each year. Once introduced, it is expected that the dairy premia will be decoupled and consolidated into the Single Farm Payment. This may happen in 2005 or it may be delayed until 2007.

⁷ Note that some of this adjustment may have already taken place through the existence of the 50% set-aside option, and through the increased uptake of agri-environment schemes, i.e. producers have already withdrawn some of their least profitable land into such schemes.

⁸ Whilst there is in principle some protection to local (UK) production in the form of lower transport costs, within the EU single market, shifts in supply and demand in one member state are usually quite quickly and comprehensively transmitted around the internal EU market, limiting any such price rise.

last six years of farming recession. So there are indeed logical grounds to expect some rent and land value increasing effects of decoupling *per se*⁹.

18. However, the above statements were all premised upon there being benefits from decoupling isolated from all counter-acting effects, or other changes in the economic environment. In fact we have every reason to expect counteracting effects and changes in the economic environment which would tend to diminish, and could reverse the above impacts, because of policy decisions already made.
- a. It is policy that the decoupled payments will be reduced through a series of four possible mechanisms.
- The first of these is top slicing of all payments, probably by 3% to provide a National Reserve to be able to allocate SFP entitlements to farms in transition and new entrants to farming. This is a pure redistribution within farming which clouds the above analysis.
 - Second, there will be an additional 5% modulated¹⁰ cut in SFP to switch funds to the England Rural Development Plan for the Entry Level Stewardship scheme, which DEFRA aim to be taken up by 70% of English farmland. This too is a complex redistribution within English farming. It is further complicated by the fact that some of these cuts may be redistributed away from the UK¹¹, but on the other hand these funds are supplemented by Treasury match funding, providing a stimulatory effect.
 - Third, it has not been decided if there is to be a further (up to 10%) cut in payments for the Article 69 so-called National Envelopes, and if so, how these funds are redistributed amongst farmers¹².
 - Fourth, after 2007 it is highly likely that payments will be cut (again modulated through at least a €5000 franchise) by the mechanism of Financial Discipline to fund any further reforms which result from the Doha Development Round of WTO, from the effects of enlargement, and resulting from the new EU financial perspectives. All of these are expected to put pressure on CAP expenditure.
- b. The decoupled SFP is denominated in nominal Euro. Inflation will erode the payments – and thus their economic impacts. Any weakening of the Euro against the Pound Sterling will also reduce the payments received by farmers in pounds, diminishing the impacts on farming income and, consequently, asset values. It would be a brave person who argues that the current international strength of the Euro is based on strong economic fundamentals of sound European public finances, productivity and economic growth.
19. CLA conclusion to this point is that three of the policy decisions will redistribute farming income – and in ways which are difficult to predict, the fourth policy effect and the economic effects will be to reduce support. After all these factors have

⁹ The magnitude of such effects arising from decoupling is likely to be swamped by the effects of changes in exchange rates and international markets.

¹⁰ The modulation (Article 10) takes the form that the first €5000 of all claims is not subject to this cut.

¹¹ It is not completely clear if this is EU modulation (which is returned to Brussels and then distributed back to the Member States by objective formula) as opposed to unilateral UK modulation all of which stays where it is collected. For EU modulation, even though there is a requirement that 80% of modulated funds stay in the country from which they are collected, the UK contributes more to this fund for every 1% modulation because we have a smaller proportion of farms that is exempt from the cuts because their SFP is below the €5000 franchise.

¹² Because these payments have to be ring fenced within a sector (Article 69) , i.e. cuts in beef payments have to be returned to beef producers, it suggests that, broadly, the impacts on land values are not likely to be great.

played out, the overall impact of decoupling on farming income will be small, and knock-on effects on land values and rents even smaller.

IV To understand impacts of decoupling on land sale and rental markets, we first have to understand how the new market for Entitlements will work. We now propose a framework for doing this.

20. Before establishing the framework for analysing the Entitlement market, we consider the relationship between this market and the market for land. The connection between the two is that eligible agricultural land is required to validate the payments. It seems reasonable, therefore, to suggest that there is an inverse relationship between these two. That is if land on the market to buy or rent is scarce, and rent and price are therefore high, this implies low price for Entitlement, and vice versa. To put this another way: when support can be capitalised into land or capitalised separately into the Entitlement market, then it sounds reasonable that the more it goes into one, the less there is available for the other. Value is a function of scarcity and is not conjured from thin air. Our intuition is that the direction of causation is stronger from the land market to the Entitlement market than in the other direction. This is because the land market is already established and the occupation of land is a prerequisite for the entitlement market to operate at all.
21. To try and disentangle the various forces at work in these two related markets, the first task is to try and understand the driving forces in the new market, that for Entitlements. When this is done, we return to the interaction between the two markets.

The Market for Single Farm Payment (SFP) Entitlements

22. Whatever system is agreed for distributing the SFP, there was a clear political intention throughout the legislative process that the payment belongs to the farmer, the tenant of let land, and furthermore, SFP entitlements are tradable with or without land. Throughout the debate, the CLA cautioned against this approach. Our argument is that the market in Entitlements will serve no useful purpose from the point of view of economic efficiency. We predict it will severely undermine one of the main purposes of decoupling, which is to turn farmers' attention away from the subsidy system and rules, and towards their customers. We also contend that it is as likely to inhibit needed structural change as to encourage it¹³. The market for entitlement will become an important focus of attention in itself, wastefully drawing in significant administrative costs in the process. Our advice has been, to decide the future purpose of whatever payments are expected to endure, and then allocate the SFP in the way which seems most likely to help achieve these objectives. The CLA argues that the main enduring purpose is related to environmental land management so payments should be allocated over *all* land. The rates and conditions would then have to be 'ironed out' to reflect their new purpose¹⁴.
23. The concern is sales of Entitlement *without* land. Sales of entitlement *with* land, and leasing of Entitlement with land, are identical to the present situation regarding

¹³ Briefly, a middle-aged tenant with no successor faced with the choice of drawing the SFP and doing little more than keeping land in good agricultural and environmental condition, is as likely to relax and sit it out, as he is to sell up and retire on the proceeds of the cash value of the SFP. The lower the market value of the Entitlements the greater the temptation of hanging on.

¹⁴ This is a much abbreviated account of this issue. There is a strong interrelationship (or ought to be) between the SFP, the cross compliance conditions, the Entry Level Stewardship scheme, the Higher Tier scheme, and the use of National Envelopes for environmental purposes. CLA views on these issues are spelled out in our response to the Regulation in March 2003, to the DEFRA consultation in October 2003, and to the EFRA Select Committee 9th January 2004.

sales, purchase and letting of IACS registered arable land. In most circumstances, people wishing to sell agricultural land, will wish to sell the entitlements with them. In such cases, there will generally be no formal separation in the price of the land and the value of the support.

24. The experience in the UK is that if production restrictions, or payment rights like the SFP, are tradable in their own right, then British farmers will actively trade them¹⁵. To try and anticipate the working of this market we have to understand the characteristics of the sellers and buyers of entitlement, their likely objectives and constraints, and the way other economic and institutional factors will impact on this market. Initially this is discussed without reference to the initial distribution of the SFP. A framework describing the characteristics of this new market has first to be established. Once this is done, it can be used to analyse the impacts of different initial allocations of Entitlement. What follows is necessarily a little abstract and formal. This is because a market is being established in a new, unique asset. Unless there is an agreed formal basis for understanding this market it will not be possible to assess claims which are being made about its likely effects.
25. It is presumed that Entitlements can be bought and sold in one-hectare lots. However allocated, each Entitlement will have its own specific value, having been issued by a Government agency to an individual farmer¹⁶. In principle, any Entitlement can be 'activated' on *any* eligible hectare within the same Member State. Because the UK has already decided to implement on a regional basis it is highly likely, and the CLA would wish, that transfers of Entitlement will be restricted to within the region in which it was allocated, e.g. England.
26. **The sellers** of Entitlements are farmers who have been allocated them in 2005, or who have subsequently purchased or inherited them, and who are occupiers of eligible agricultural land¹⁷.
27. **The motives for selling entitlement** are as follows.
 - To cash-in or capitalise the future payment stream in order to fund some unsupported crop or other non-farming activity¹⁸, or retirement from farming.
 - To realise some assets to fund a cash flow problem
 - To be able to escape from some of the conditions which apply to those drawing their SFP: that is, cross compliance, set-aside and permanent pasture constraints¹⁹.

¹⁵ There is also already waiting in the wings in the UK a fully developed information and exchange system for trading these assets amongst farmers. This is the set of well-known and used Quota traders, such as Ian Potter Associates.

¹⁶ In this first analysis details like set-aside entitlements (Articles 53-56) and entitlements subject to special conditions (Articles 48-50) will not be identified.

¹⁷ Eligible land is defined (Article 44(2)) as any agricultural area of the holding taken up by arable land and permanent pasture except areas under permanent crops, forest or used for non-agricultural activities. It is not clear how long the land has to be occupied before Entitlements can be traded. The regulations require that " a farmer may only transfer his payment Entitlement without land only after he has used , within the meaning of Article 44, at least 80% of his payment Entitlements during at least one calendar year" (Article 46(2)). However it is unclear whether "using" involves a period of time (a calendar year, or a shorter period, such as 10 months) and from which date that period commences, or a point in time, e.g. the date of issuance of the Entitlement.

¹⁸ It would be possible of course to cash in cereal payments in order to make investment in cereal farming, but in the context of the last five years of low profitability of farming supported crops, even with the coupled direct payments, this seems unlikely.

¹⁹ Some of these are inescapable, for example the Statutory Management Requirements and the Regulatory Impact Assessment required for the ploughing of permanent pasture. However, a judgement may be taken by some producers that with scarce regulatory resources, the regulators are more likely to target their efforts where there is the additional leverage of payment reductions.

- To be able to free land from its initial Entitlement in order to make it a possible vehicle to receive higher value Entitlement at some future date.
 - In anticipation of future policy changes which may reduce Entitlement value.
28. **The buyers** of Entitlements are a constrained group. They must:
- (a) be farmers,
 - (b) undertake agricultural activity²⁰, and,
 - (c) be in occupation of eligible hectares.
 - (d) This land must not already be included in other claims for Entitlement (i.e. they must be Entitlement-free or 'naked acres').
 - (e) These farmers must have the capital or borrowing power to make the investment²¹.
29. **The motives of buyers of entitlements.** There are a number of situations in which we might anticipate that farmers or landowners might *feel the need* to acquire Entitlements.
- A farmer who was not allocated any and feels dispossessed or unfairly treated as a result.
 - A farmer with very low value Entitlement which he is prepared to discard in order to buy higher value Entitlement.
 - A landowner whose tenant has sold the Entitlement and left.
 - A tenant without Entitlement²².
 - There may be fiscal incentives for acquiring Entitlements.
30. However it is one thing to feel left out of the distribution of Entitlements, quite another to be willing and able pay up significant sums of capital to do anything about it. It is to be expected that financial advisers will point out to potential buyers the critical features of SFP Entitlements. This financial instrument can be characterised as a Government-issued, declining, uncertain, constrained annuity²³.
31. The Entitlements are not 'required' for any purpose at all (unlike milk and sugar quota). In contrast to trade in milk quotas where it can be argued that more efficient producers could be expected to be able to bid more to acquire them, thereby improving Industry efficiency, there is no such argument for trade in Entitlement. Indeed they bring with them the cross-compliance constraints and associated costs, and a greater probability of visits from the regulators. In such

²⁰ The definition of agricultural activity has been significantly widened by Article 2(c) by the inclusion of the phrase "maintaining the land in good agricultural and environmental condition as established under Article 5".

²¹ The Banks have indicated privately that they see no reason why they would not provide secured loans for the purchase of Entitlement.

²² Note that new entrants to farming (owner occupiers or tenants) are explicitly catered for as priority cases in the distribution of Entitlement from the National Reserve. They are therefore not likely to be a big category of purchasers. This conclusion is reinforced, as new entrants are also likely to be highly constrained in their ability to raise the necessary capital.

²³ The reasons the Payments will decline are explained in paragraph 19 above. The main uncertainty is that there is no way of knowing how long the payments will last. The existence of a budget from which they are paid until 2012 may give some indication, but such budgets can change. Likewise the rate of decline after 2007 when Financial Discipline (Article 11) is available, is not known. The payments are constrained in the double sense of the class of buyers is constrained (para 27) and the buyer is subject to a series of cross compliance constraints. Beyond this they are an annuity paid from the public purse.

circumstances the main, if not only, rational economic reason for buying Entitlements is that for the price, and accepting the uncertainties and constraints, they are a good value investment²⁴. This market will provide the unedifying sight of those farmers who have easiest access to capital chasing public subsidy for pure financial gain and no other purpose.

32. **Determination of the market price of entitlement.** Each Entitlement has a specific face value in €/hectare, which is the amount, before deductions, which will be paid to the farmer. Depending on the allocation scheme, there will be a big range in the face values of payment rates per hectare from a few €/ha to several hundred €/ha²⁵. When we talk about the market price of this paper asset it therefore makes more sense to talk in terms of the multiple of the face value which has to be paid to acquire ownership of the asset, than in absolute €/ha. The term used by valuers to do this is 'Year's Purchase' (or capitalisation multiple) abbreviated as YP. Thus YP 2 indicates a purchase price of twice the first year's face value of the asset.
33. As in any market, the price of Entitlement is that which balances the volume offered with that demanded. In principle, and qualitatively, this market will be like any other. The higher the price of entitlement, *ceteris paribus*, the fewer people who will be prepared to invest, thus the lower the quantity demanded (and vice versa). Thus the demand curve has the usual, negative, slope. Likewise, the higher the price of Entitlement the greater the volume which will be offered to the market (and vice versa). So the supply curve has the normal positive slope. Given these conventional features, the market outcome (shown graphically as the intersection of the supply and demand curves) may be analysed, as always, in terms of the factors which shift supply and demand. This is illustrated in Figure 1 and Table 1.
34. Figure 1 shows the conventional supply and demand analysis of the market for Entitlements. If demand is as represented by the curve D_I and supply by the curve S_I , then the equilibrium market price (i.e. price to face value ratio) will be P_I , and the volume traded Q_I . This framework is used to analyse the forces in the market which shift the demand and supply curves, and bring about other outcomes such as the curves D_{II} and S_{II} which intersect at the lower price ratio P_{II} and the volume traded Q_{II} . These shifters are summarised in Table 1. As always, each individual factor is analysed independently of the others, ie assuming they do not change.

²⁴ This can only be judged in terms of the other opportunities available to the investor.

²⁵ Some argue (e.g. FPD Savills, internal paper) that it will mostly be the highest value Entitlements which will trade, but unless transactions costs are high, this would be unusual. In most markets the lower value end of the market enjoys a larger volume of trade than the top end.

Fig 1 The market for Entitlement

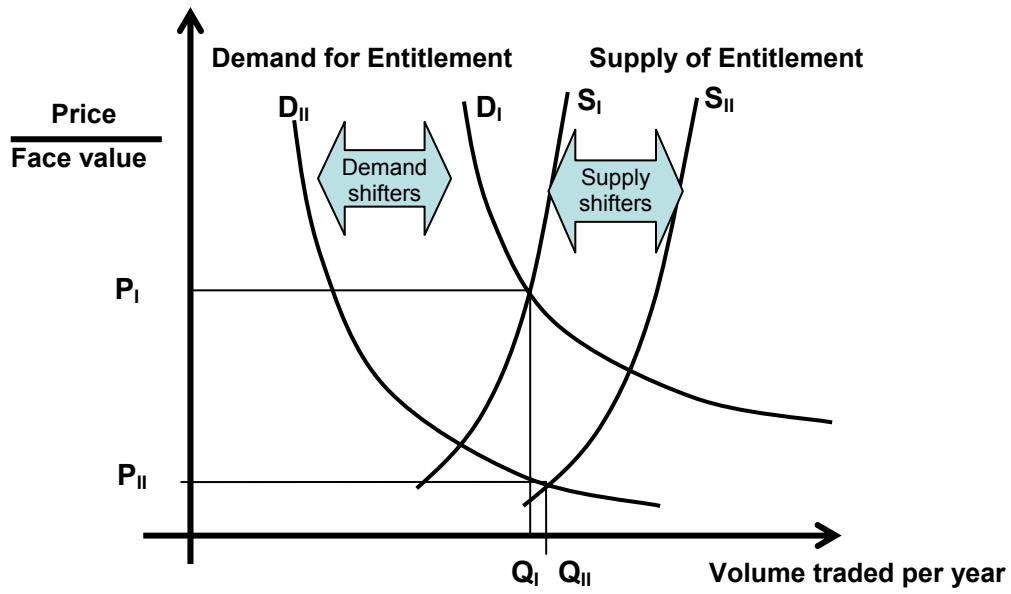


Table 1 Shifters of Demand and Supply for Entitlement

| Demand Shifters | Factors causing Demand to decrease; whole curve shifts left (i.e. D_1 to D_{11}) | Factors causing Demand to increase; whole curve shifts right (i.e. D_{11} to D_1) |
|---|--|--|
| 1 Extent of 'naked acres' | If you don't have, or have the prospect of, access to naked acres, you cannot buy Entitlement so demand shrinks. | If Entitlement-free land is plentiful, this then can be the basis of stronger demand for Entitlement. |
| 2 National Reserve | Plentiful National Reserve and easy to get hold of Entitlement from that source, hence less demand to buy it. | Scarce National Reserve; cumbersome to get hold of. So if you want it, you have to buy it. |
| 3 Cost of Borrowing | Higher cost of borrowing, will reduce the demand from those who do not have ready capital. | Lower cost of borrowing encourages more to do so to acquire Entitlement. |
| 4 Willingness to let land | If owners are unwilling to let land, this restricts demand for Entitlement | If owners are willing to let and rental land is plentiful, this stimulates demand for Entitlement |
| Supply Shifters | Factors causing Supply to decrease; whole curve shifts left , (i.e. S_{11} to S_1 in Fig 2) | Factors causing Supply to increase; whole curve shifts right, (i.e. S_1 to S_{11} in Fig 2) |
| 5 Variation in Entitlement rates | The smaller the range of face-value of Entitlement the smaller the scope to offer Entitlement for potential trade-up. | The greater the range of face-value of Entitlement, the greater the scope to trade up. |
| 6 Profitability of farming | Profitable farming, so fewer tenants wishing to sell up, hence less Entitlement offered at each price. | Unprofitable farming, more tenants wish to sell up and get out; so more Entitlement offered at each price. |
| 7 Costs of Cross-Compliance | If Cross-compliance is 'easy' less need to sell up entitlement. | If Cross-Compliance is onerous and costly; this will tempt more farmers to sell Entitlements to get out from under. |

35. The listing and account of the market shifters in Table 1 does not indicate their relative importance or the strength of their effects, although they are shown in their likely order of importance. From this analysis we summarise, in Table 2, the combinations of circumstances which will result in high or low price for Entitlement, and high or low volumes of trade in Entitlement. Considerably more research, and observation of the market in action will be necessary to quantify this analysis.
36. With this framework we are now in a position to examine the effects of different distribution systems for Entitlements on both the Entitlement market and the land market.

Table 2 Combinations of circumstances determining prices and volume of Entitlements.

| Combinations leading to: | High | Low |
|----------------------------------|---|---|
| Price to face-value ratio | <p>D_I with S_I</p> <ul style="list-style-type: none"> ▪ Scarce National Reserve ▪ Low borrowing costs ▪ Plentiful naked acres ▪ Plentiful land to rent ▪ Profitable farming ▪ Easy cross compliance ▪ Small range in Entitlement values | <p>D_{II} with S_{II}</p> <ul style="list-style-type: none"> ▪ Plentiful National Reserve ▪ High cost of borrowing ▪ Scarcity of Naked Acres ▪ Scarcity of land to rent ▪ Unprofitable farming ▪ Onerous cross-compliance ▪ Big range in Entitlement values |
| Volume of trade | <p>D_I with S_{II}</p> <ul style="list-style-type: none"> ▪ Scarce National Reserve ▪ Low borrowing cost ▪ Plentiful naked acres ▪ Plentiful land to rent ▪ Unprofitable farming ▪ Onerous cross-compliance ▪ Big range of Entitlement values | <p>D_{II} with S_I</p> <ul style="list-style-type: none"> ▪ Plentiful National Reserve ▪ High cost of borrowing ▪ Scarcity of naked acres ▪ Scarcity of land to rent ▪ Profitable farming ▪ Easy cross compliance ▪ Small range in Entitlement values |

V The choices of how to allocate the Single Farm Payment will have impacts on the Entitlement Market prices and volumes, and the land market.

37. There are three ways of distributing the Single Farm Payment: on the basis of Individual Historic Claims (IHC), Regionalised Average Payments (RAPs) or mixtures of the two, known as hybrids²⁶. To understand whether and how these impact on the Entitlement market we have to consider their effects, if any, on the seven ‘shifters’ identified in Table 1.
38. It seems reasonable to assume that however the Entitlements are distributed this does not impact on the cost of borrowing, and the costs of cross compliance. However it is expected that the distribution method will have effects on the other five variables which influence supply and demand in the Entitlement market. Brief explanations of our judgements of these effects are summarised in Table 3 and fuller explanations follow.
39. **The extent of ‘naked acres’.** Appendix Table 1 shows one set of estimates of the area of eligible agricultural land which is likely not to bear Entitlements if distributed by Individual Historic Claims. It amounts to 450,000 to a million acres, or 2 to 5% of the English eligible area²⁷. All hybrids which include some part of the payment

²⁶ In principle there are two sorts of hybrids: stable hybrids which are mixtures of historic and regionalised payments which don’t change during the period of this reform, and dynamic hybrids in which the distribution starts as Historic or a stable hybrid and then changes year on year, by what Article 63(3) of the regulation refers to as “progressive modifications according to pre-established steps and objective criteria” to a regionalised distribution. At the time of writing, there have been no open advocates of the latter and therefore no published accounts of what they are or how they work.

²⁷ These and some estimates made for RICS, are the only available estimates of naked area and eligible agricultural area. Despite several requests to DEFRA to reveal their estimates of these areas nothing has emerged from that source. DEFRA claim that it is impossible to measure the extent of naked land

distributed on a RAP basis immediately cover *all* the eligible area with some payments²⁸. This immediately reduces the Entitlement-free area, to its minimum, and this is the same as for a full RAP distribution. The main category of Entitlement-free land under these options is land on which the farmer has chosen not to claim his SFP (presumably this will only happen when the face-value rate per hectare is small). It is acknowledged that if payments are available for occupying eligible land this gives an incentive to discover such land. This will necessitate administrative efforts to validate, map, and register such land.

40. The biggest claims on the **National Reserves** will come about under allocation based on IHCs. This is because each previous claimant who had special factors (e.g. hardship and exceptional circumstances including Foot and Mouth Disease, or who was participating in environmental schemes which reduce their payment entitlement, and anyone who has altered their occupied area by leasing or buying land since mid-2000), will be entitled to ask for special consideration for a higher claim than was paid during the reference period. These appeals will be heard by tribunals. If they are successful, the additional payments claimed will have to be met from the National Reserve. In addition, there will be appeals made by those who for various reasons, including new entrants to farming, but others too, had no claims in the reference period. Thus the sheer administrative effort of dealing with these cases, which will amount to tens of thousands of appeals, and the pressure on the National Reserve will be great. The CLA hybrid practically eliminates at least three-fifths of these appeals because it awards the regionalised part of the payments to those who occupy grassland and cropland in 2005 (based, we understand, on land registered in 2003)²⁹. The fully Regionalised distribution reduces claims on the National Reserve still further. Indeed it could be possible that even new entrants will not have to apply to the National Reserve as long as they are occupying eligible land.
41. It is more difficult to quantify the impact of the choice of SFP allocation method on **the willingness to let land**. There is extreme nervousness amongst private and institutional landowners about the principle that arable payments which have been linked to land in the past will in future be footloose. Two indicators of the effects of uncertainty on the land market and the loss of confidence are: the collapse of the sale and purchase of agricultural land amongst farmers since January 2003³⁰, and we understand that many land agents, discharging their normal commercial function to land owner clients, have been advising that notice is served to tenants whose agreements which expire or come up for review in 2004 are subject to renegotiation. There is little doubt that the prevailing feeling amongst landowners is that the historic distribution, which results in the greatest area of Entitlement-free land poses most threat to their interests. It therefore reduces their confidence in the let land sector, and most threatens the future willingness to let land. Hybrid schemes³¹ and

until all Entitlement claims are received and scrutinised. This does not absolve them from explaining what qualifies as eligible land and what categories of land might be claimable as 'naked acres'.

²⁸ This is a requirement of Article 59 of the Regulation. In dynamic hybrids, as soon as any part of the SFP is allocated on a regionalised basis it will have to be distributed over *all* eligible land. It is not clear at which stage this happens in the dynamic hybrids we believe are under consideration.

²⁹ There are important details to be clarified about how eligible agricultural land, both grassland and crop land not registered in 2003 (e.g. on specialist dairy farms who have never completed IACS forms) will be brought into the reckoning. The three-fifths in this sentence refers to the proportion of total payments regionalised under the CLA proposed Hybrid.

³⁰ Land and Estate Agents have reported a halving of activity in the land market, and much of what remains is on behalf of non-farming purchasers.

³¹ Although there is no mathematical certainty in this area, generally the smaller the proportion of payments regionalised, and thus the smaller the RAP component of payments, then perhaps the more likely that payments may be small enough to ignore. Thus the existence of a large pool of near-naked land is almost as threatening as the pool of naked land.

the full RAP, which result in least Entitlement-free land, poses smaller threat to landowner interests, and thus least threat to the availability of land to let.³²

Table 3 Effect of choice of allocation system on Entitlement market shifters

| Method of SFP allocation Market shifter | Individual Historic Claims | CLA Hybrid | Regionalised Average Payment |
|---|----------------------------|---|---|
| 1 Extent of 'Naked Acres' | Largest area likely | Least area | Least area |
| 2 National reserve | Will be biggest | Intermediate | Smallest |
| 4 Willingness to let land | Most threatened | Little threat | Little threat |
| 5 Variation in Entitlement rates per hectare | Greatest variation | Some variation | Least variation |
| 6 Profitability of farming | Least effect | Small negative effect for crops & the most intensive dairy and beef farms | Bigger negative impact on the most intensive, supported, sectors. |

42. **Variation in Entitlement rates** will be greatest under the historic distribution, and least with a single full RAP for all England where all eligible hectares get the same payment per hectare. Hybrids will be in between: the greater the proportion of payments regionalised, the less the variation in payment rates. The relevance of this factor is that the more variation, the more the opportunity and the temptation to swap or trade entitlements³³.
43. **Farm profitability.** Within the general proposition spelled out in Section III above that decoupling *per se* could generally increase farm profitability, there may be some differential effects depending on the allocation of Entitlements. It is agreed by all, and supported by analysis that DEFRA have conducted, that averaging any part of payments over a region as large and diverse as England, will bring about some redistribution of the support payments³⁴. The scale of this redistribution depends mostly on the intensity of the current payments per hectare. The biggest losses from a full RAP, or, eventually, from a dynamic hybrid, will be found on the most intensive beef and dairy farms. The corresponding fall in profitability, especially

³² This may have been one of the reasons that the NFU's Tenant's Committee was reported to have voted for a RAP distribution of payments before it was disbanded in a recent internal reorganisation.

³³ Another uncertainty is how Entitlements will be treated in the years to come. Initially, under the Historic allocation, every farmer will have a single face-value, or rate of payment per hectare, for all the Entitlements he is allocated. As soon as he starts trading he will have Entitlements at different rates. Will these be consolidated or simply carried forward at different rates? It would seem a pointless exercise to devote administrative costs to keeping track of these different rates for payments which are supposed to be completely decoupled from production.

³⁴ DEFRA's estimated that 14% of the SFP would be redistributed by a full RAP compared to the Historic distribution. Hybrid solutions redistribute less. Some organisations somewhat exaggerate this redistribution describing it as "massive".

amongst tenant farms, could well stimulate a significant sell-up of Entitlement as these farmers exit from the industry. The CLA hybrid was designed specifically to reduce this redistribution amongst livestock farms. This hybrid, admittedly, does not eliminate redistribution therefore there may be some impacts on profitability felt by cropping farms which only produced supported crops, and by the most intensive dairy and beef producers³⁵. It should however be noted that for every £ lost by one farm under a hybrid or RAP distribution scheme, another farmer gains this £. The relative impact of these losses and gains on willingness to trade Entitlements is not clear.

44. **Results: the effects of the Entitlement allocation method on the Entitlement market.** Pulling this analysis together we try and anticipate, qualitatively, the impact of the choice of SFP system on the Entitlement market and then on the land market. When we combine the information in Tables 2 and 3, we can see the effect of each allocation method on the price and volume of Entitlement traded via the five shifters. For example Table 2 says that a plentiful National Reserve is associated with low price and low volume of Entitlement, and Table 3 shows that Individual Historic Claims result in the biggest National Reserve. So in Table 4 against row 2, National Reserve, for IHC we predict Lo Price: Lo Volume. All the other combinations are depicted in Table 4.

Table 4 Expected Impact of Entitlement allocation method on Price and volume of Entitlement Traded

| Method of SFP allocation Market shifter | Individual Historic Claims | CLA Hybrid | Regionalised Average Payment |
|---|-----------------------------------|-----------------------|-----------------------------------|
| 1 Extent of 'Naked Acres' | Hi Price Hi Volume | Lo Price Lo Volume | Lo Price Lo Volume |
| 2 National reserve | Lo Price Lo Volume | Intermediate | Hi Price Hi Volume |
| 4 Willingness to let land | Lo Price Lo Volume | Hi Price Hi Volume | Hi Price Hi Volume |
| 5 Variation in Entitlement rates per hectare | Lo Price Hi Volume | Intermediate | Hi Price Lo Volume |
| 6 Profitability of farming | Hi Price Lo Volume | Intermediate | Lo Price Hi Volume |
| Overall | 3 say Lo Price 3 say Lo Volume | Intermediate | 3 say Hi Price 3 say Hi volume |

45. The overall results show that for Entitlements distributed by Individual Historic Claims, three associated factors result in low Entitlement prices, and a low volume of Entitlements traded, and two in high prices and volumes. In the case of the Full RAP there are three factors indicating high prices and volumes and two indicating low prices and volumes. Taken at face value this seems to suggest that the IHC distribution may lead to low volume and price of Entitlement, and a RAP distribution leads to high volume and price. However this mechanical counting of effects presumes that the individual effects are equally strong, which they are not.

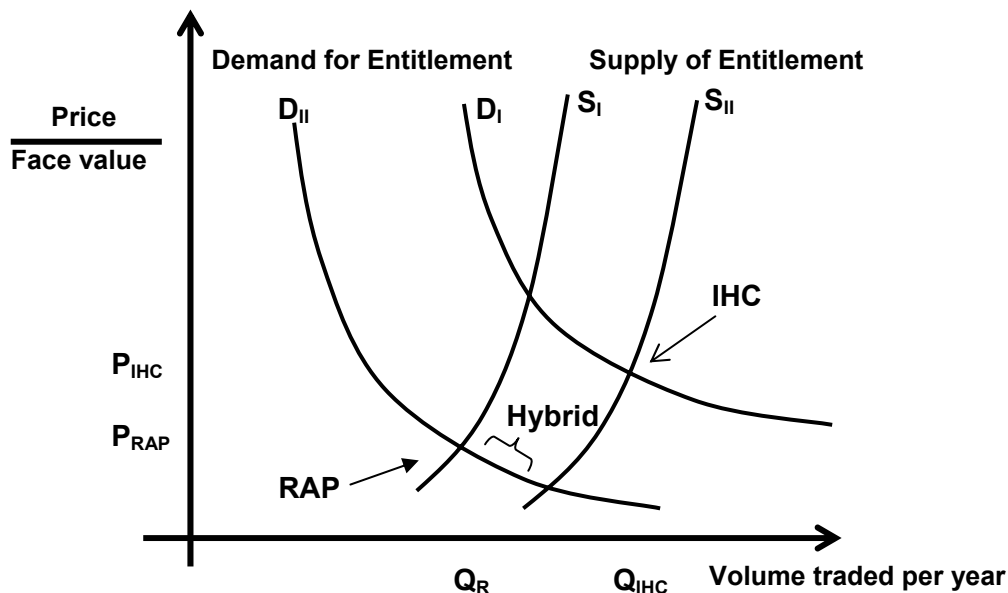
³⁵ An internal CLA paper is available which analyses the level of intensity above which the HARC hybrid reduces payments to dairy farmers.

46. Intuitively it is expected that of the five factors analysed, the two shaded ones are the most important: No. 1, the extent of naked acres which acts through demand for entitlement; and No. 5, the variation in entitlement rates, which acts through the supply of entitlement. On this basis we see from Table 4 that for IHC allocation, these two variables give opposite conclusions for price, although both point to a *high* volume of Trade. Correspondingly for the RAP allocation, there are also opposing effects from these two variables for price, but both point to a *low* volume of trade. As far as the CLA Hybrid is concerned, according to Table 4, on three of the critical variables (2, 5 and 6) it lies as an intermediate outcome between those for IHC and RAP, and on the other two variables it is close to the RAP. On the basis of the two more significant (shaded) factors the analysis suggest low volume of Entitlement trade and is not definitive about prices. In short, the results of the analysis are:

- **IHC:** **highest volume of trade** **price indeterminate**
- **RAP** **lowest volume of trade** **price indeterminate**
- **Hybrid** **low volume of trade** **price indeterminate**

47. The outcomes described in the two paragraphs above are illustrated in Figure 2. The IHC solution is associated with a 'high' demand curve like D_I , and supply curve S_{II} . The RAP solution is at the intersection of the 'low' demand curve D_{II} and the supply curve S_I . The CLA Hybrid is on the 'low' demand curve, and the relevant supply curve is intermediate somewhere between S_I and S_{II} .

Fig 2 Allocation of SFP and the Entitlement market



VI There are additional factors in the first year of Entitlement trading, particularly the existence of surplus Entitlement, which could be very influential in the characteristics of this market.

48. In several very important regards the first year of Entitlement trading could be materially different than in subsequent years when the system settles down. The first of these is the existence of **surplus Entitlement**. Whether this comes about, and if it does, its extent, depends very much on the decisions yet to be taken by the Commission and DEFRA. Surplus Entitlement could arise if more entitlements are issued than the eligible hectares which gave rise to them.
49. One of the ways in which this could happen are illustrated by the case that farmer A was in occupation of say 50 Ha for the first two years of the reference period and farmer B for the third year³⁶. Farmer A will certainly apply for 2/3rds of the entitlement value and Farmer B for 1/3rd. In this case there are potentially 50 Ha's worth of surplus Entitlement looking for land on which to validate the payment. The critical decision concerns the working of the claw-back of Entitlement from the former occupiers. If there is 100% claw-back, i.e. all former occupiers in cases like this are not issued with their entitlement, then this eliminates the apparent surplus Entitlement. However, in doing so, it causes two legitimate complaints. The farmer who continues in production (e.g. Farmer A continues the same volume of production elsewhere in year three of the reference period) will feel very badly treated if he is denied payments relating to two years of the reference period. Also the claw back solution reduces the total value of Entitlement claimable unless all the payments of the three years are allocated to the new, current occupier Farmer B. The rules for dealing with all this have not yet been explained. It is therefore difficult to know the size of these problems.
50. The point is that if surplus Entitlements are a reality then they will certainly affect the Entitlement trading market in the first year or two of its operation. In the framework established, surplus entitlements will drive out the supply curve of Entitlements to the right in Figure 2, beyond S_{II} increasing the volume of trade still further and driving the price of Entitlement down. Correspondingly, if there is an acute surplus of Entitlement available this could create pressure in the land market as farmers anticipate having such entitlement and seek land on which they can validate it, driving up rents and land prices. This clearly interacts with the administrative decisions determining the availability of Entitlement-free land.
51. The issue of surplus Entitlements particularly raises its head with the Historic distribution method. Government would be wise to think these aspects through extremely carefully, taking advice from the CLA and from land agents before they decide the rules concerning the allocation of Entitlement and claw-back which have such potentially disruptive effects. It would be reckless for Government to set off an avoidable land rush with accompanying inflationary effects on rents and land prices.
52. Another way in which the first year could be different is if the distribution method chosen is a **Dynamic hybrid which starts with a 100% Historic based distribution**. Advocates of the HARC hybrid argue that this would be the worst of all worlds as (apart from having to deal with all the transition cases) it would create a once-for-all window of maximum flexibility for the Entitlement market to swing into action. This is because for that year alone the two main drivers of the Entitlement market are freest, viz. the area of Entitlement free land, and the widest range of Entitlement rates. This seems most likely to set off frenzied activity in the

³⁶ This is a complex part of the regulation, the example is illustrative only. There may be many ways in which more entitlements might be issued than land which gave rise to it.

Entitlement market, which we have argued serves no economically rational policy purpose.

VII The land market implications of the choice of Entitlement distribution method.

53. The final stage of the argument is to link the results of analysis of the Entitlement market to possible impacts on land values and rents. It was concluded above (paragraph 20) that there is an inverse relationship between Entitlement price and land price or rent. Thus high priced Entitlements will accompany low rents, and vice versa. However, whilst the qualitative analysis of section V was able to predict systematic differences in relative volumes of trade resulting from different payment distribution methods, the results for prices were indeterminate³⁷. If we are not able, definitively, to demonstrate that any particular distribution system for the SFP Entitlements will result in high Entitlement prices, then it is also impossible to conclude that any distribution of Entitlement will depress or raise rents, and thus land values.
54. ***In this case, accusations that particular parties (e.g. tenants or landowners) are advocating particular distribution methods because that solution is going to raise or lower rents are not based on firm foundations. The CLA is concerned that there is such ill-informed commentary on these issues that wrong decisions may be taken on the basis of such arguments. In the debate about the method of allocating the SFP, the concern on the possible impacts on rents and land values should therefore play no further role.***

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³⁷ For those less familiar with the formal economic analysis of section V, this outcome, that we can predict volume effects but not price effects, results from the fact that the latter depend on the shape (essentially the elasticity) of the supply and demand curves rather than their relative positions. Thus in Figure 2, with the curves drawn differently the IHC 'solution' could be at a lower price than the RAP solution, whereas the logic of the analysis (if correct) requires that the volume under IHC will always be greater than RAP.

Appendix I The extent of 'Naked Acres', Entitlement-free land in England

| Naked land | Acres |
|--|--------------------|
| Change, reduction in potato area since 2000-2002 | 51,000 |
| Change, increase, in fruit and vegetable area | -5,000 |
| Outdoor pigs and hens | 40,000 |
| Flowers and bulbs | 12,000 |
| Maize base area overshoot (69% of claims) | 183,000 |
| Other AAPS base area overshoot (1% of claims) | 102,000 |
| Other naked land excl Sugar Beet | 6,000 |
| Land bought post 'cut off' date without Entitlement | 47,000 |
| Total (1- 8) | 436,000 |
| Virtually naked land | 100,000 |
| Sugar Beet (how should this be treated?) | 420,000 |
| Undeclared forage area? | ? |
| Land not currently farmed (including horse grazing?) | ? |
| Grand total (1-12) | >956,000 |

Source: FPDSavills, personal communication.