

# The Potential of Farm Partnerships to Facilitate Farm Succession and Inheritance

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## Abstract

The prominence of collaborative farming arrangements in countries such as New Zealand, Norway and the Netherlands has been investigated with varying reasons as to why farm structures of a collaborative nature have been undertaken. The motivations for this contain a mix of economic and social facets. At present, the rising average age of farmers and low level of young farmer entry is being theorised as problematic on a global scale with Ireland being no different. Here, farm partnerships are presented as a possible means by which farm succession and inheritance could take place in a timely manner. This research aims to investigate a recent proposal by government to introduce a tax relief as an incentive for farmers to part take in farm partnerships. A hypothetical microsimulation model is used to investigate the possible outcomes of such a tax relief, with scenarios created to examine how this would materialise. It draws on the Teagasc National Farm Survey data which provides Irish data to the Farm Accountancy Data Network in the European Commission. The Net Present Value (NPV) of income streams for farmers and their successors are calculated to assess which scenarios have the highest/lowest financial effects. The findings illustrate that even with a tax relief cattle rearing farms would struggle to reap any economic benefit from entering a farm partnership, while their dairy counterparts would receive more value from tax reliefs. Results also indicate that farm viability will play a large role in whether or not collaborative farming is viewed as an option for farmers.

**Key Words:** Farm partnership, succession, inheritance, collaborative farming.

## 1. Introduction

Contemporary agriculture faces a myriad of challenges ranging from increasing pressure to reduce environmental impacts to the threatened financial viability of some farms. No concern however is more pertinent at farm level than that of business continuity, of which succession and inheritance planning is an integral part. Farmer decision-making around succession and inheritance is complex and multifaceted while influencing factors are economic, personal and social; with every farm succession and inheritance route being idiosyncratic. Due to the complexity of the situation, policy makers are challenged in their endeavour to encourage transfer of farm ownership or management to a younger generation. The increasing average age of farmers globally has been problematized as a situation of lower production, efficiency and technology adoption correlated with older land-holders (Potter and Lobley, 1996; Lobley et al., 2010; Howley et al., 2012). This perceived problem of reduced productivity and efficiencies as a function of an ageing farm population is under particular scrutiny within Europe, North America and Australasia where the competitiveness of the agricultural sector is high on national economic development agendas.

With a view to addressing the ageing profile of farming, a range of strategies and policy interventions have been put in place over the last three decades or so, from early retirement schemes to various tax incentives in an effort to encourage a more structured and predictable rate of entry into and exit from farming as an occupation. Farming is also construed as a 'way of life' as much as an occupation, and it is contended that emotional and other cultural and symbolic associations with agriculture have confounded attempts to introduce policy in a format that can take account of these complexities (Conway et al., 2016; Inwood and Sharp, 2012; Gasson and Errington, 1993). The issue remains however, that policy has not been sufficiently innovative to alter the established dynamic of low rates of

transfer and an ageing farming population. The issue is particularly acute in the Irish context, where the vast majority of farm transfers are made via inheritance, and generally take place within families. This has culminated in a particularly stifled land market and very limited pathways to entry for young farmers (Hennessy and Rehman, 2007; Matthews, 2014).

One strategy for change currently being developed in the Irish policy context is the introduction and promotion of farm partnerships across all farming systems. Prior to 2015, registered farm partnerships in Ireland were only open to situations that involved at least one dairy farmer. The rationale behind farm partnerships as envisaged with the succession issue is that they incentivize a new set of working arrangements between older and younger farmers, as a way of providing more options for younger farmers to enter farming. They also create more opportunities to maximise efficiencies and profitability through combining expertise, experience and resources and through convincing older farmers of the benefits of earlier farm transfer. The benefits associated with young farmers being involved in an enterprise from the point of view of encouraging farm transfer have been widely cited. Potter and Lobley (1996) have coined the terms 'succession, successor and retirement effects' to describe the processes whereby an identified successor or lack thereof can significantly influence the original holder's level of interest and investment in the farm when approaching what should be their own exit from farming. Potter and Lobley (*ibid*) argue that 'farmers without successors...seem significantly more likely to be disengaging from agriculture' (p. 329). The successor effect thereby refers to the positive impact which a successor can have on a farm once he or she becomes actively involved in the running of a farm and decision-making processes. The retirement effect generally has a negative impact on farms, i.e. the process of semi-retirement tends to be characterised by de-intensification and liquidation of assets if there is no successor present. The contention is that a farm partnership could promote the successor and succession effect together with creating an environment for shared decision making and control, while stifling the negative outcomes of the retirement effect (*ibid*).

A key aim of this research is therefore to provide a critique of the current and previous mechanisms relating to farm succession and inheritance, assessing the plausibility of farm partnerships as a means by which farm succession and inheritance can be facilitated. The issue of financial viability of a farm partnership is a second crucial aspect; if the partnership cannot sustain the farm and provide a reasonable income for those involved, it is unlikely to be embarked upon regardless of its capacity to encourage farm succession to take place. The paper is structured to initially provide a comparative analysis of farm partnerships internationally (including Ireland) as a mechanism to support succession and inheritance, focusing on structural and policy aspects. Secondly, taking the example of Ireland, it examines the financial implications for farmers of embarking on farm partnerships with a view to farm succession. It does this by applying a hypothetical microsimulation model to assess the value of a range of tax reliefs offered as incentives to enter partnership arrangements, and to proceed on to farm transfer. In addition to this previous issues regarding farm partnerships and their interaction with schemes will be highlighted. Notably this paper is part of a larger body of work to be published investigating farm succession and inheritance.

## **2. Collaborative farming models to support succession and inheritance**

Farm partnerships are one of the farming arrangements that come under the umbrella term 'collaborative farming'. Other arrangements considered collaborative farming include contract rearing, share farming, cow leasing and long term land leasing (Curran, 2015). Forms of collaborative farming, particularly farm partnerships, have been identified as a step towards farm succession and inheritance. Commins and Kelleher (1973) (and later Gasson and Errington, 1993) refer to the succession process as a 'ladder' of responsibility which is gradually ascended by a young farmer entering a business. Generally the process of retirement and succession is a gradual one that follows clear phases, hence the ladder analogy. The first phase is where the farmer shares the workload with the successor. Following this, management is slowly passed over to the successor before eventually the successor becomes the sole operator. The identified middle phase is likened by Gasson and Errington (1993) to a farm partnership. A farm partnership involves the pooling of resources and skills of the parties

involved, a contract is agreed which specifies profit shares for the parties involved and sets out levels of input each partner will have. Macken Walsh and Roche (2012) describe a farm partnership as a situation in which 'two or more farmers join resources and efforts in order to acquire various benefits' (p.2). Partnerships have developed in a variety of ways in different countries, with diverse levels of uptake.

Partnerships have developed in a variety of ways in different countries, with diverse levels of uptake. At present they are popular amongst farmers in New Zealand, France, Norway and the Netherlands (Johnson et al., 2009; McLeod, 2012). Partnerships in Ireland are most similar in structure to those in France, known as GAECs (Groupements Agricoles d'Exploitation en Commun). The GAECs facilitate the bringing together of small scale farms with the objective of making farming more viable. Policy changes in French agriculture have accommodated the GAECs in order to encourage farmers to enter or remain in an arrangement.

### **3. Opportunities of the farm partnership model**

#### **3.1 Partnerships facilitating succession and inheritance**

The transfer of decision making responsibilities can be a bone of contention for farm successors with older farmers retaining control over decisions until they exit farming. A farm partnership provides an avenue for responsibilities to be more formally shared between farmer and successor, thus reducing the possibility of a successor becoming frustrated over time (Errington, 1998). In the UK, Ingram and Kirwan (2011) evaluated the Fresh Start Initiative, a scheme which matched new entrant farmers with retiring farmers as a means of giving younger farmers a start and older farmers a gradual exit strategy. However, this was not seen as hugely successful because there were insufficient profits from some partnerships to sustain two salaries; additionally farmers were reluctant to enter a partnership with someone who was not previously known to them. In contrast, Gasson and Errington (1993) describe the partnership model as an excellent means by which a successor can gain managerial responsibility prior to fully taking over a family farm. In addition they assert that farms where a farmer-son partnership is in place tend to expand far more than their counterparts. Ingram and Kirwan (2011) also note that farmers are more willing to cooperate with family members. Many Dutch farms are in partnerships which facilitate the process of gradual succession (NRN, 2012). In New Zealand farming in partnership is popular amongst dairy farmers, with McLeod (2012) referring to forms of farm partnership as 'succession options'. In the Dutch case a 'maatschap' allows a successor to build up a share in the farm business over time and also facilitates the gradual transfer of control from the farmer to their successor (Gasson and Errington, 1993). This form of partnership is utilised by the majority of farms in the Netherlands (Johnson et al., 2009). Van der Veen et al. (2002) note that a maatschap can be attractive to a young farmer as it provides them with the security of knowing that they will eventually take over the farm, thus avoiding the ambiguity that can arise in cases where farm transfer is not discussed. Additionally the farmer and his/her successor are placed as equal partners as opposed to the farmer being the main decision maker. Until recently, registered partnerships in Ireland were only an option where at least one partner was operating a dairy system; however partnerships were introduced for all farming systems as of spring 2015. In the case of New Zealand, the dairy industry has a well-developed career structure which gives young farmers the opportunity to begin farming and has exit schemes available for older farmers such as phased exit strategies (CIAS, 1996). Up to 40% of New Zealand's dairy farms operate under share milking agreements, indicating a high success rate, while over 20% of all dairy farms in Norway are managed using some form of partnership (McLeod, 2012). Ingram and Kirwan (2011) discuss 'joint venture' (JV) farming which includes farm partnerships. They describe JVs as 'a flexible alternative to conventional tenure arrangements' (p. 919). However, McLeod (2012) notes that sheep and beef farms tend to use 'more traditional' forms of succession and inheritance.

#### **3.2 Risk reduction**

A critical issue in partnership arrangements is how decision-making and risk assessment are shared. Collaboration among farmers can lead to management synergy especially if it is collaboration between

farmers coming from two different enterprise backgrounds, for example, beef and dairy. If farmers differ in managerial ability, those with relatively low ability will benefit from the experience of working with those with relatively high managerial ability, while those with high managerial ability will gain access to additional resources. It has been argued that farmers are generally risk averse (Groom et al., 2008), so partnership arrangements may promote risk reduction in net income by risk sharing and diversification effects; thus partnership arrangements should be an attractive option for farmers. Moreover, the risks associated with introducing new technologies can be shared among farmers (Larsen, 2008). McLeod (2012) cites the perceived risk involved in joining a farm partnership as a contributing factor to a final decision, going on to reference sharing of risks as a potential benefit to being in a farm partnership. For retiring farmers, a partnership may be perceived as attractive as it allows them to retain some control over the farm, particularly if they do not have a source of retirement income. Entering a farm partnership does not require the farmer to transfer any land to a successor, possibly reducing the perception that they are losing control of their farm which often deters farmers to engage in succession/inheritance (Lobley et al., 2010). From the perspective of a successor, the formation of a partnership can confirm their status on the farm. In many cases successors may be unaware if they will definitely inherit the farm or not, and often do not receive payment for the work they undertake (Gasson and Errington, 1993). The partnership contract in the Irish case incorporates the sharing of profits, which in turn reduces the risk of a successor abandoning the family farm as a result of becoming frustrated with a lack of pay or responsibility and seeking opportunities outside of farming.

#### **4. Methodology and Data**

In 2002, registered Milk Production Partnerships (MPP) were made available to dairy farmers in Ireland based on the GAEC system. Initially partnership agreements were confined to bringing together two producers who each had a holding and a milk quota; however, in 2003, new regulations were introduced which aimed to expand the use of partnership arrangements. One of the features of this change was to provide for partnership arrangements between a parent and son/daughter and in conjunction with this, under the restructuring scheme, to allow priority access to quota to the son/ daughter as a new entrant to dairying. Although initial interest in partnerships was low there has been significant uptake in recent years, particularly in the new entrant/parent arrangements. In 2016, partnerships were made available for all farm systems to enter and current figures indicate that there are 1,145 registered partnerships in Ireland (DAFM, 2016).

This section focuses on an analysis of the different tax reliefs/ schemes available to farmers in partnerships in terms of how they potentially impact on succession and inheritance decision-making. It does this through the use of microsimulation modelling to produce a comparative analysis of 2 (hypothetical) base farms involved in farm partnerships, with one farm in the pre-2016 and the other in the post-2016 (proposed) partnership scheme, in terms of how each fares out in terms of financial viability. In addition to this, farms in pre-2016 scenarios will not receive assistance from the 'Support for Collaborative Farming Grant Scheme' (SCFG - discussed below). Details of the different tax reliefs under each scheme are first outlined, followed by a description of the hypothetical simulation model applied.

##### **4.1 Financial incentives/tax reliefs**

In December 2015, the Irish government announced an income tax credit (subject to EU approval) to encourage the transfer of farms within families. A new register will be created for farm partnerships in which one partner is a young trained farmer. This register will allow an annual €5,000 income tax credit to be split between the partners in a farm partnership for a five year period. One of the conditions is that 80% of farm assets must be transferred within 3 to 10 years of applying to register a partnership to avail of the tax credit.

Changes introduced as part of the introduction of the most recent CAP reform have embraced the concept of multiple payment thresholds to registered farm partnerships across all CAP Pillar I and Pillar

II schemes. The concept that “farmers entering into a registered farm partnership should not be in any way disadvantaged when compared to farmers operating in their own right” has been embraced by policy holders. Technical issues can still arise that cause problems for farmers obtaining their multiple payments.

A SCFG has also been introduced to cover 50% of the costs incurred in entering a farm partnership. This grant aims to cover some of the legal, financial and advisory fees associated with setting up a collaborative farming arrangement. The maximum payment is €2,500. Those in a Department of Agriculture, Food and the Marine (DAFM) registered farm partnership can also avail of stock relief in two ways, with young farmers receiving 100% stock relief for the first four years after set up as a farmer. Other partners can avail of an enhanced stock relief a rate 50% on their share of the increase in stock value. Farmers can also benefit from a higher investment ceiling for the Targeted Agricultural Modernisation Scheme (TAMS) and multiple payments under the Green, Low Carbon, Agri-Environmental Scheme (GLAS), Areas of Natural Constraint (ANC) payments and the Organic scheme.

#### 4.2 Hypothetical microsimulation modelling

The area of farm succession and inheritance lends itself to a high level of complexity given the factors involved such as the wide-ranging impact of such a decision on the lives of the farmer, successor, and their families (Inwood and Sharp, 2012). For this research, the chosen scenario used to analyse the economic impact of different routes to succession and inheritance is that of entering a farm partnership. Hypothetical microsimulation is the most appropriate methodological approach as it allows for complexity to be removed to an extent and an assessment of different changes to be made at a micro level (O'Donoghue, 2014). This method facilitates the projection of income streams for both parties, whilst allowing for farm level changes (such as income increase/decrease and farm size adjustment) to be made for each scenario.

Microsimulation models use data on micro-units (e.g. households, firms, farms, etc.) to simulate the effect of policy or other socio-economic changes on the population of micro-units (Mitton et al., 2000). The need for microsimulation arises from the difficulty of observing simultaneously the outcomes for the same micro-unit under a treatment and in the absence of a treatment (e.g. policy change), and also crucially as a tool to understand the complexity of a policy problem. The result of the microsimulation models can be affected by many factors, which makes it difficult to illustrate the effect of a single factor. Hypothetical models focus on a particular scenario under certain predefined assumptions. This allows the model developer to examine a simplified version of the simulated observation (O'Donoghue et al., 2014). Microsimulation techniques have become a much used instrument for their ability to provide an assessment of differing scenarios and facilitate decision making (Spadaro, 2007). In this case, microsimulation will be used to understand economic decisions regarding farm partnership and conclusions will be drawn around the likely follow on implications for farm transfer. Focusing on a hypothetical farm allows for the sensitivity of farms to policies to be tested while avoiding the complications that would arise were this study to be undertaken on a real farm. Farm level decisions are not always rational or economically driven (Vanclay, 2004; Howley et al., 2012), but this method facilitates the simulation of decisions based on economic incentive as opposed to basing decisions on non-economic phenomena.

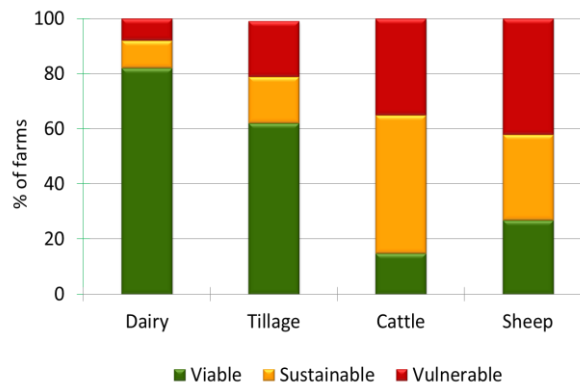
#### 4.3 Farm viability

While farm viability<sup>1</sup> is not the only factor taken into account when making succession and inheritance decisions, a non-viable farm is less likely to be capable of supporting two generations at once as part of a farm partnership. In the Irish case, Hennessy and Moran (2015) note that more dairy and tillage

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<sup>1</sup> Viable here denotes a farm that has the capacity to pay family labour at the average agricultural wage and provide a 5% return on all non-land assets.

farms tend to be considered viable with cattle and sheep farms being more likely to be sustainable or vulnerable (Figure 1).



**Figure 1: Ireland - Farm Viability by System 2014 (Source: Hennessy and Moran, 2015)**

#### 4.4 Data

Farmer and successor characteristics used are outlined in Table 1. These characteristics are applied so that the farmer and successor qualify for maximum capital tax reliefs. A farmer aged 35 or under is considered a young farmer for capital and farm partnership tax reliefs, while a farmer over 65 is considered to be at retirement age and is eligible for a contributory state pension at age 66 (depending on contributions made). The characteristics used here are as follows:

Farmer	Successor
Age: 65	Age: 35
Married	Education: Level 6 Ag. Education
Pension: Contributory	Single
No off farm job	Off farm job (€25,000 income)

**Table 1:Farmer/Successor characteristics**

In addition to the above characteristics average figures from the Teagasc National Farm Survey (NFS) are used for modelling the effects of scheme changes and the formation of a farm partnership for cattle rearing and dairy systems (See Hennessy et al., 2013).

#### 4.5 Format and expected outcomes

The scenarios for this research focus on hypothetical farm partnerships, figures for an average dairy farm are used, with scenarios modelled for pre and post changes to policy/schemes. It is expected that direct payments may make it more economically beneficial for the farmer to delay any transfer until death. These payments may result in land retention by older farmers, as they provide a steady source of income for retirement. Variables such as farm size, income, livestock units, etc. can be held constant which may not always be the case in reality. Adjusting aspects of the farms will test the effects of succession/inheritance (partnership) policies on income.

### 5. Results

In this section the outcomes of farm partnership scenarios are illustrated under different policy circumstances. In particular, an illustration is given of issues that have occurred while also investigating new and current schemes surrounding farm partnerships. While cattle rearing and dairy systems were modelled, the focus here will be on dairy given the higher income levels and thus more notable results.

The first part of this section describes issues that have arisen; the issues and current/proposed schemes are then modelled using hypothetical microsimulation.

### 5.1 Previous disincentives for farm partnerships

In recent years there have been policy changes to facilitate the promotion of collaborative farming and allow multiple payments to farmers farming in registered farm partnerships. Unlike the GAEC system in France, formal farm partnerships have not been a prominent feature in Irish agriculture over time. Meaning policy makers have not facilitated collaborative forms of farming in some instances. In the case of Rural Environment Protection Scheme (REPS) payments, partnerships were not catered for in the earlier schemes. If a farmer in REPS entered a partnership with a non-REPS farmer (who did not qualify for the scheme) then both partners would be rendered ineligible. Here a REPS farmer would have to exit REPS and pay back penalties, resulting in a strong financial disincentive to enter a partnership. Changes introduced as part of the REPS IV scheme facilitated multiple payments to registered farm partnerships. Notably, the current agri-environmental scheme (Green Low Carbon Agri-Environment Scheme – GLAS) caters for farmers in partnership to be treated as separate individuals to avoid any loss of payment.

Additionally, both policy technical issues prevented farmers in farm partnerships obtaining multiple payments in the previous Disadvantaged Area Scheme (DAS). Under the scheme, a farmer operating in his own right would attract one payment on up to a maximum of 30 hectares. When two farmers who were drawing area based payments entered into an MPP they were then reduced to one payment threshold, likewise with three farmers. Only one payment was achievable under the scheme and consequently farmers entering registered partnerships were at a financial loss by entering partnership. Similar to agri-environmental payments, existing disadvantaged area payments (now 'Areas of Natural Constraint' – ANC) also cater for partnerships allowing multiple payment thresholds where two farmers are in partnership (i.e. max. of 60 ha for a partnership with two partners). Table 2 illustrates the potential losses from area based payments not facilitating farm partnerships<sup>2</sup>

Changes to area payments for partnerships		
	DAS (2013)	ANC (2015)
Annual payment for partnership (two farmers)	€2,468	€4,936
Annual losses from joining partnership	€2,468	None

**Table 2: Changes to area based payments for partnerships**

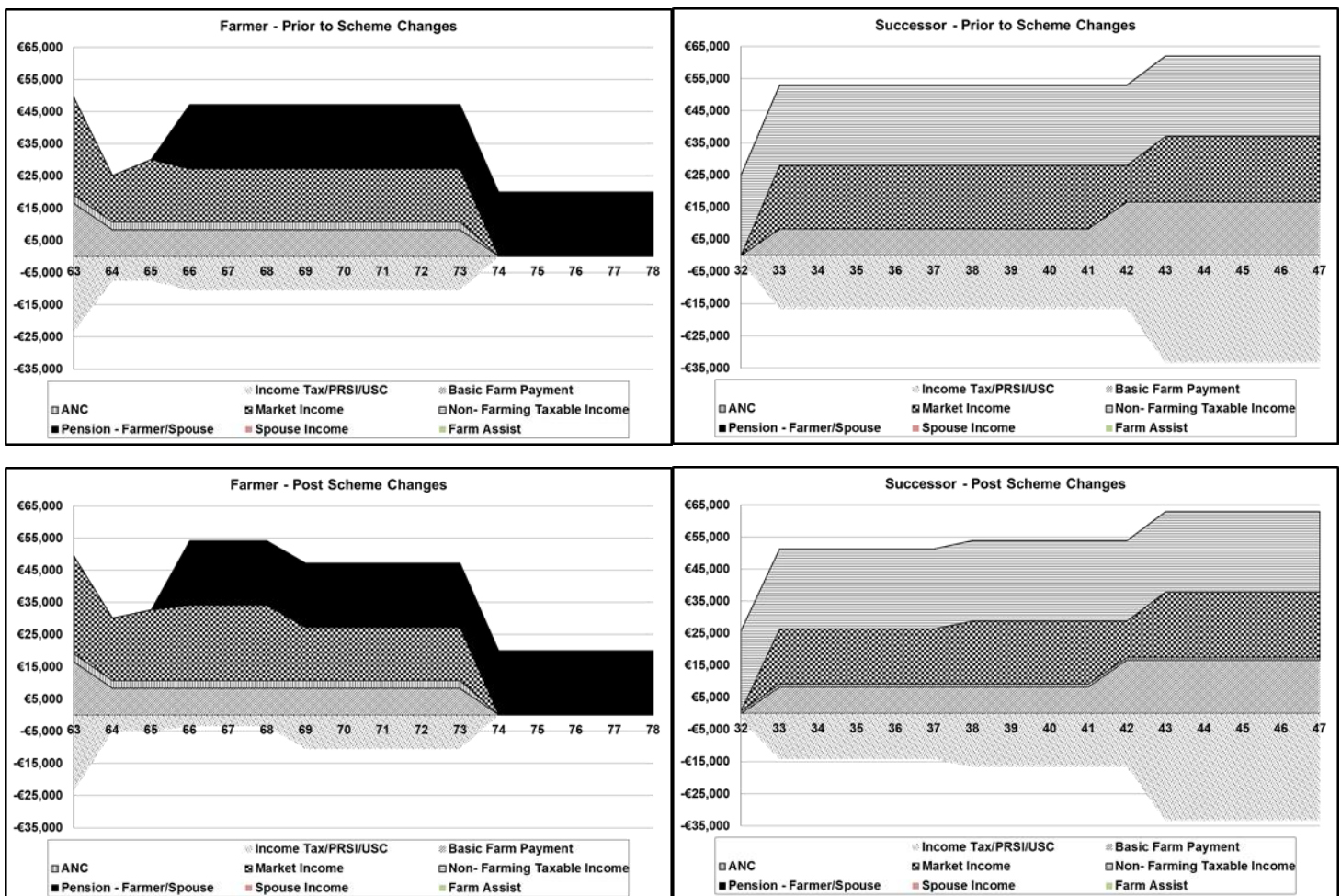
During 2015, initial issues arose for ANC payments interacting with farm partnerships, caused mainly due to technical problems. At an administrative level, for farms to enter a partnership (where partners both have a herd prior number) typically, one herd number would become 'dormant' on the Department of Agriculture, Food and the Marine (DAFM) registration system. In this instance only one herd number associated with a partnership could meet the qualifying criteria and therefore no payment issued to the partnership. This issue has been resolved for 2016 by applying the qualifying criteria at partnership level rather than at individual partner level. The changes now allow for multiple payments to issue from 2016 onwards. A similar technical issue arose in terms of the Basic Payment Scheme (BPS) entitlements, farmers joining a partnership would have entitlements merged making it very difficult to exit a partnership at the end of the agreed time period without financial loss (see appendix 1 for working example). This has also now been resolved to ensure that when farmers dissolve their partnership, they can take back their entitlements in the same fashion as they first contributed them.

<sup>2</sup> This example of based on a maximum of 30 ha for a 'Less Severely Handicapped' area (€82.27 per ha).

## 5.2 Example of potential benefits

Figure 1 presents an example of potential benefits for an average dairy farm in which a farmer and successor enter a partnership; the successor here brings 10 ha to the partnership which is being leased. The graph entitled 'Prior to Scheme Changes' does not include: higher ceiling of ANC payments, CFGS, or the proposed tax relief. 'Post Scheme Changes' includes these benefits. The partnership prior to scheme changes faces significant financial losses when compared to post changes. For ANC payment, the successor does not receive their payment on the 10 ha they bring to the partnership, resulting in a loss of €822 per year. Set up of partnership cost is €5,000 without the CFGS; here a loss of €2,500 is incurred. Finally, without the proposed partnership tax relief for the first five years, the partnership incurs €5,000 of income tax for five years that would not be charged under proposed scheme. In addition to this, the TAMS grant and stock relief stipulations would apply were this partnership to increase herd size or make on farm improvements. The final graph illustrates what would occur if no partnership was entered i.e. farmer retains all income until death.

Figure 1 Illustration of potential benefits from scheme changes



## 6. Discussion and Conclusions

The results presented above illustrate the ways in which the farm partnership tax relief and SCFG would function, with varying outcomes. In general, the most notable concerns are the relative ability of a farm to generate enough income to support both a farmer and their successor, as well as the residual income of the farmer should they transfer the farm prior to death. In this regard there are clear differences



emerging from the simulation exercise that appear to have a strong correlation in the first instance with the type of farm system involved (i.e. a beef system would have lower income compared to the dairy example used here). The proposed tax scheme accrues more financial benefit to the successor as they gain farm income from joining the partnership whilst also acquiring the tax relief. However, from the farmer's perspective there is a reduction in farm income and in the case of low income cattle rearing systems, tax relief provides little or no benefit. While the introduction of a farm partnership scheme is a positive step towards improved land mobility, successor centred policy does not adequately address the fact that there are two parties to be catered for in any farm succession and inheritance process. In terms of the SFFG, this provides minor incentive as it alleviates some costs associated with the setting up of a partnership.

It is established in the literature that the characteristics of a farm can have a strong influence on succession and inheritance outcomes, with factors that influence farm income (such as farm size and system) having the most impact on the processes. Uchiyama et al. (2008) found that farm size did influence succession, with successors on smaller farms being more likely to have employment and thus an income source outside of the farm, therefore decreasing the likelihood of them entering farming. Hennessy and Rehman (2007) also found this to be the case in the Irish context. Chang (2013) raises a similar issue when stating that young people have become less interested in farming as a result of the low income that is often accrued from agriculture. The implication is that smaller farms with associated lower incomes will render attracting a successor a difficult task, meaning that the partnership option has very little role to play in the succession process. Larger farms with higher asset values are more likely to be able to identify a successor (Calus et al., 2008). In a study on farm restructuring conducted by Lobley and Potter (2004) which observed a low number of respondents planning to exit farming, the majority of those exiting were older farmers operating smaller farms. The overall implication is that farm size can affect the exit and entry rate, i.e. successors are more enticed to take on larger farms, while exiting farmers are more likely to be leaving smaller farms that are probably financially unviable. Calus et al. (2008) recommend using Total Farm Assets (TFA) as an indicator for farms that will have a successor. While the idea that farm size, value etc. have a positive effect on succession outcomes, using TFA alone as an indicator would not suffice, as it does not capture important factors such as the number of children a farmer has, for example. This is similar to the research findings here as they are limited to the micro simulation model outputs.

As discussed earlier farm partnerships in New Zealand, Norway, France and the Netherlands are a well-established model of farm management. With an average farm size of 252 ha (Beef and Lamb New Zealand, 2015) and the prominence of dairy systems it is no surprise that partnerships are common in the case of New Zealand. Such farms are more capable of supporting two generations at once, meaning that partnerships do not pose any threat from an economic stand point. An exception would seem to be Norway, where the average farm is 20 ha (Eurostat, 2013), yet 20% of its dairy farms are involved in farm partnerships.

The findings from this research would indicate that there is a rational economic path to be followed towards farm partnership for larger and more financially viable farms, which in turn may facilitate quicker hand-over of farms from an older generation to a younger one. The rationale for undertaking farm partnerships to encourage the exit of older farmers is not apparent, and the merits of the tax relief scheme are otherwise not sufficiently appealing to promote extensive up take at the present time. While the SCFG eliminates half of the associated costs of set up, this may not be a sufficient incentive to enter a collaborative arrangement. The recommendations from this research would be for more wide-ranging enquiry into the ways in which the tax relief scheme would generate broader appeal, along with a series of recommendations on how this would be implemented. As it stands, its impact on the major policy concerns of an ageing farm population and associated implications for farm efficiency and agricultural productivity will be minimal. In the case of cattle farms, there is potentially an argument to be made for creating a scheme that provides an economic incentive beyond tax relief for farms of this nature; this would in turn have financial implications that would require more extensive research. Additionally, the

consultation of individuals who fully understand the practical and administrative aspects of introducing new schemes is advised at the early planning stages of scheme rules and details. This could be realised in the form of small stakeholder groups participating in the design of such policy initiatives to ensure that issues of collaborative farming interacting with future policy change are minimised.

In addition to the influence of farm size already discussed, this can also affect the risk preferences of farmers when considering structural changes such as entering a farm partnership. Crowley (2006) asserts that smaller farms will engage in new practices but 'only if there is a high level of confidence that it will not threaten their subsistence' (p. 55), going on to note the higher risk threshold larger farms can afford as a result of their stronger financial situation. Our findings support this argument, farmers on average cattle farms have their subsistence threatened due to the splitting of an already meagre income. In this situation it is assumed that the farmer may perceive a partnership arrangement as a risk to retirement income, particularly where they do not have any source of off-farm income. As mentioned earlier, a collaborative farming arrangement may reduce the risk of a successor abandoning the family farm. Thus it is appropriate to conceptualise the partnership model as a farm survival strategy akin to forms of farm diversification.

While farm partnerships may not be financially attractive to cattle rearing farms (as a result of the inability of a low income system to provide financially for two generations at once), the need to gradually exit and allow the entry of a successor into the farm business may be met by such an arrangement. In tandem with this, Ingram and Kirwan (2011) suggest that farm partnerships may provide a suitable means by which older farmers can gradually exit farming. In a partnership farmers may retain levels of control while their successor can also have an influence over decision making. The nature of a farm partnership contract facilitates the staged exit of an older farmer and entry of a young farmer and in this manner a successor may ascend the 'succession ladder'. However, while there are benefits of a non-financial nature associated with farm partnerships beef and sheep systems continue to take a traditional approach to farm succession and inheritance (McLeod, 2012). This indicates that farmers in systems where finances are not as robust may fail to see positive aspects of partnerships. Gasson and Errington (1993) for example describe 'limited farm size with its associated shortage of adequate income and accommodation to support the two generations' (p. 208) as constraints for the formation of farm partnerships. While this may be the case, partnerships for farm systems where off-farm work is the norm may be undertaken for reasons such as those listed earlier (see table 2). Applying this to the findings here, it can be determined that cattle rearing farms need to be made more aware of the non-pecuniary benefits of partnerships.

The main findings from this research indicate that farm partnerships are to some extent a suitable means by which to expedite farm succession and inheritance; however, this statement comes with some caveats. The suitability of a partnership depends on the individual farm level situation and also what expectations the farmer/successor has for the partnership model. Based on the findings from this research, deciding to enter a partnership based on a solely economic rationale is best suited to dairy systems, while cattle rearing farms may have a propensity to focus on benefits such as the gradual transfer of control and increased leisure time afforded to partners. These wider non-economic benefits that could potentially be generated through farm partnerships, which could in turn bring a shift in mindset about the value of earlier farm transfer, require further research and wider dissemination of information on same. This is especially important in the case of farmers' operating systems where budgetary constraints are present.

In summary, facilitating a sector-wide increase in farm succession and inheritance will require a higher level of understanding of different farm systems and the way in which partnerships as part of this process can aid these farm businesses in the first instance, and facilitate early farm transfer in the second. Finally, as the farm partnership scheme is in its infancy an appraisal of the scheme is required to ensure it is effective in encouraging farm succession and inheritance.

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## 7. References

ADAS Consulting Ltd. 2004. 'Entry to and Exit from Farming in the United Kingdom', Prepared for The Department of Environment, Food and Rural Affairs.

Bacidore, J., Boquist, J., Milbourn, T., and Thakor, J. 1997. 'The search for the best financial performance measure', *Financial Analysts Journal*, 53 (3), pp. 11 -20.

Beef and Lamb New Zealand, 2015. Compendium of New Zealand Farm Facts, Publication No. P15014.

Calus, M., Van Huylenbroeck., and Van Lierde, D. 2008. 'European Society for Rural Sociology', *Sociologia Ruralis*, 48 (1), pp. 38 – 56.

Centre for Integrated Agricultural Systems (CIAS), 1996. New Zealand's dairy career path: evaluating a farm entry/exit strategy', *Research Brief #34*, <http://www.cias.wisc.edu/sharemilking-in-wisconsin-evaluating-a-farm-entryexit-strategy/>, (27/03/15).

Chang, H. 2013. 'Old Farmer Pension Program and Farm Succession: Evidence From a Population-Based Survey of Farm Households in Taiwan', *American Journal of Agricultural Economics*, 95 (4), pp. 976 – 991.

Ciaian, P., Kancs, d'A., & Swinnen, J. 2010. EU land markets and the common agricultural policy. Brussels: Centre for European Policy Studies.

Commins, P., and Kelleher, C. 1973. *Farm Inheritance and Succession*, Dublin: Macra na Feirme.

Conway, S, F, McDonagh, J., Farrell, M., and Kinsella, A. 2016. 'Cease agricultural activity forever? Understanding the importance of symbolic capital', *Journal of Rural Studies*, 44, pp. 164 – 176.

Crowley, E., 2006. *Land matters: power struggles in rural Ireland*. Lilliput Press: Dublin.

Curran, T. 2015. 'Registering a Farm Partnership – The Requirements', Teagasc Farm Business Conference 2015, Tullamore Court Hotel, 26th November.

Deininger, K. and Feder, G. 2001. 'Land institutions and land markets', *Handbook of Agricultural Economics*, Vol. 1, pp. 288-331.

Department of Agriculture, Food and the Marine, 2009. 'Value for money review: The young farmers installation scheme', May 2009.

Errington, A. 1998. 'The intergenerational transfer of managerial control in the farm-family business: A comparative study of England, France and Canada', *The Journal of Agricultural Education and Extension*, 5 (2), pp. 123 – 136.

Errington, A. 2002. 'Handing Over the Reins: A Comparative Study of Intergenerational Farm Transfers in England, France and Canada', 10th EAAE Congress, 'Exploring Diversity in the European Agri-Food System', Zaragoza, Spain, August 2002.

Eurostat, 2015 (last updated 19th February 2016), available at: [ec.europa.eu/Eurostat](http://ec.europa.eu/Eurostat), [http://ec.europa.eu/eurostat/statistics-explained/index.php/Farm\\_structure\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Farm_structure_statistics) (Accessed: 5th April 2016).

Gasson, R., and Errington, A. 1993. 'Patterns of Succession and Inheritance', in Gason, R., and Errington, A. 1993. 'The Farm Family Business', CABI: Oxon, pp. 182 – 209.

Groom, B., Koundouri, P., Nauges, C., and Thomas, A. 2008. 'The story of the moment: risk averse Cypriot farmers respond to drought management', *Applied Economics*, 40 (3), pp. 315 – 326.

Hanrahan, K., Hennessy, T., Kinsella, A., and Moran, B. 2013. National Farm Survey 2013, Rural Economy and Development Programme, Athenry, Galway.

Hennessy, T., and Moran, B. 2015. 'The Viability of the Farm Sector and its Contribution to Regional Economies', presentation at the Teagasc Rural Development Conference 2015, Castletroy Park Hotel, Limerick. 8/07/15.

Hennessy, T., and Rehman, T. 2007. 'An Investigation into Factors Affecting the Occupational Choices of Nominated Farm Heirs in Ireland', *Journal of Agricultural Economics*, 58 (1), pp. 61 – 75.

Howley, P., O'Donoghue, C., and Heanue, K. 2012. 'Factors Affecting Farmers' Adoption of Agricultural Innovations: A Panel Data Analysis of the Use of Artificial Insemination among Dairy Farmers in Ireland', *Journal of Agricultural Science*, 4 (6), pp. 171 – 179.

Ingram, J., and Kirwan, J. 2011. 'Matching new entrants and retiring farmers through joint ventures: Insights from the Fresh Start Initiative in Cornwall, UK', *Land Use Policy*, 28, pp. 917 – 927.

Inwood, S. M., and Sharp, J. S. 2012. 'Farm persistence and adaptation at the rural – urban interface: Succession and farm adjustment', 28, pp. 101 – 117.

Jechlitschka, K., Kirschke, D., and Schwarz, G. 2007. 'Microeconomics using Excel: Integrating economic theory, policy analysis and spreadsheet modelling', Routledge, Oxon.

Johnson, J., Morehart, M., Poppe, K., Culver, D. and Salvioni, C., 2009. 'Ownership, governance, and the measurement of income for farms and farm households: evidence from national surveys'. In *Statistics on Rural Development and Agriculture Household Income. Contributions Second Meeting of the Wye City Group* (pp. 21-46).

Kelly, P. W. 1982. 'Agricultural Land – Tenure and Transfer', Socio-economic research series, Economics and Rural Welfare Research Centre.

Kirkpatrick, J. 2012. 'Retired Farmer – An Elusive Concept', in Baker, M. J., Whitehead, I., and Lobley, M. (Eds.) 2012. 'Keeping it in the family: international perspectives on succession and retirement on family farms', Ashgate Publishing, Ltd: Surrey.

Koundouri, P., Laukkanen, M., Myyra, S., and Nauges, C. 2009. 'The effects of EU agricultural policy changes on farmers' risk attitudes', *European Review of Agricultural Economics*, pp. 1 – 25.

Larsén, K. 2008. Economic consequences of collaborative arrangements in the agricultural firm. Diss. (sammanfattning/summary) Uppsala: Sveriges lantbruksuniv., Acta Universitatis agriculturae Sueciae, 1652-6880 ; 2008:28. ISBN 978-91-85913-61-9. Doctoral thesis.

Lobley, M. and Potter, C., 2004. 'Agricultural change and restructuring: recent evidence from a survey of agricultural households in England' *Journal of Rural Studies*, 20(4), pp.499-510.

- Lobley, M., Baker, J. R., and Whitehead, I. 2010. 'Farm succession and retirement: Some international comparisons', *Journal of Agriculture, Food Systems, and Community Development*, 1 (1), pp. 49 – 64.
- MacDonald, J.M. and McBride, W.D., 2009. The transformation of US livestock agriculture scale, efficiency, and risks. *Economic Information Bulletin*, (43).
- Macken-Walsh, Á. and Roche, B., 2012. *Facilitating Farmers' Establishment of Farm Partnerships: a Participatory Template*. Teagasc Rural Economy Research Centre, Galway.
- Matthews, A. (2014) 'The Agri-Food Sector', in O'Hagan, J., and Newman, C. (eds.) 2014. 'The Economy of Ireland: National and Sectoral Policy Issues', 12th Edition, Gill and Macmillan: Dublin.
- McDonald, R., Macken-Walsh, A., Pierece, K., and Horan, B. 2014. 'Farmers in a deregulated dairy regime: Insights from Ireland's New Entrants Scheme', *Land Use Policy*, 41, pp. 21 – 30.
- McDonnell, J. 2014. 'Management Data for Farm Planning 2013/2014', Teagasc.
- McLeod, M. 2012. 'Business Continuance and Succession Planning: A New Zealand Perspective' in Lobley, M., Baker, M.J. and Whitehead, I. eds., 2012. *Keeping it in the family: international perspectives on succession and retirement on family farms*. Ashgate Publishing, Ltd.
- Mosheim, R. and Lovell, C.K., 2009. Scale economies and inefficiency of US dairy farms. *American Journal of Agricultural Economics*, 91(3), pp.777-794.
- National Rural Network (NRN), 2012, 'Potential of Farm Partnerships to Facilitate Entry into and Establishment in Farming', report prepared by Dr. Pat Bogue for the National Rural Network.
- O'Donoghue, C. 2014. 'Handbook of Microsimulation Modelling', (Contributions to Economic Analysis, Volume 293) Emerald Group Publishing Limited.
- OECD, 2015. [data.oecd.org, https://data.oecd.org/pension/net-pension-replacement-rates.htm#indicator-chart](https://data.oecd.org/pension/net-pension-replacement-rates.htm#indicator-chart), Accessed: 1/04/15.
- Potter, C., and Lobley, M. 1992. 'Ageing and Succession on Family Farms: The Impact on Decision-making and Land Use', *Sociologia Ruralis*, 2/3, pp. 317 – 334.
- Potter, C., and Lobley, M. 1996. 'Unbroken Threads? Succession and its Effects on Family Farms in Britain', *Sociologia Ruralis*, 36 (3), pp. 286 – 306.
- Spadaro, A. (Ed.). 2007. 'Microsimulation as a tool for the evaluation of public policies: methods and applications', *Fundacion BBVA*.
- Stiglitz, J., 1974. Risk sharing and incentives in sharecropping. *Review of Economic Studies*, 61 (2), pp. 219-256.
- The Land Mobility Service Annual Report, 2015. 'Land Mobility: Working Towards a Shared Future', The Land Mobility Service, Ireland.
- Turley, G., and Maloney, M. 1997. 'Principles of Economics: An Irish Textbook', Gill and Macmillan: Dublin.
- van der Veen, H, B., van Bommel, K, H, M., and Venema, G, S. 2002. 'Family farm transfer in Europe: A focus on the financial and fiscal facilities in six European countries', *Agricultural Economics Research Institute*, The Hague, Netherlands.

Vanclay, F. 2004. 'Social principles for agricultural extension to assist in the promotion of natural resource management', *Australian Journal of Experimental Agriculture*, 44, pp. 213 – 222.

Vare, M., Weiss, C., and Pietola, K. 2005. 'On the intention-behaviour discrepancy. Empirical evidence from succession on farms in Finland. Discussion Papers SFB International Tax Coordination , 3. WU Vienna University of Economics and Business, Vienna.

Zagata, L., and Sutherland, L. 2015. 'Deconstructing the 'young farmer problem in Europe': Towards a research agenda', *Journal of Rural Studies*, 38, pp. 39 – 51.

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