



Financial Barriers to Generational Renewal in Swedish Agriculture

**A Mixed-Methods Analysis of Perceived
Constraints and Credit Assessment Criteria**

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A Mixed-Methods Analysis of Perceived Constraints and Credit
Assessment Criteria

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Keywords: Generational renewal, agricultural finance, credit
rationing, information asymmetry, farm establishment,
repayment capacity, leverage, mixed methods

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Abstract

The purpose of this study is to examine the main business-economic barriers to farm establishment and generational renewal among young farmers in Swedish agriculture, with particular focus on the relationship between perceived financial barriers and the financial assessment criteria applied by credit providers. The study explores how financial conditions, lending assessments and capital structures influence establishment opportunities within a capital intensive agricultural sector. The theories for this study is the credit rationing theory, as well as integrating the dupont model framework for a better and nuanced understanding.

A parallel mixed methods design was adopted, combining qualitative semi-structured interviews with young farmers and credit actors with quantitative financial key figures obtained from the Federation of Swedish farmers organisations's market analysis department. The qualitative material consists of interviews with 8 young farmers and 4 representatives from financial institutions specialised in agricultural lending. The quantitative material includes sector-level financial indicators related to profitability, leverage, liquidity, repayment capacity and capital intensity.

The findings indicate that Swedish agriculture is characterised by high capital intensity, substantial debt exposure and long investment horizons. The quantitative analysis further suggests that several production systems operate with relatively modest profitability in relation to invested capital while simultaneously depending on stable long-term cash flows to maintain repayment capacity. The qualitative findings show that young farmers perceive debt levels, financing structures and access to capital as central barriers to establishment. The findings further indicate that family succession often reduces financial barriers through existing equity, inherited assets and flexible financing arrangements, while external establishment frequently requires layered financing structures and greater financial exposure.

The study further suggests that both farmers and lenders place considerable emphasis on repayment capacity and long-term cash-flow stability. However, differences were identified regarding how financial risk and establishment feasibility are interpreted. While farmers often emphasised high entry barriers and limited flexibility, lenders primarily focused on long-term financial sustainability and resilience under uncertain conditions.

This study contributes to the literature on generational renewal and agricultural finance by providing a business-economic perspective on how financial structures, lending assessments and information asymmetries shape establishment conditions within Swedish agriculture.

Keywords: Generational renewal, agricultural finance, credit rationing, information asymmetry, farm establishment, repayment capacity, leverage, mixed methods

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Abbreviations

CAP	Common Agricultural Policy
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
LRF	Federation of Swedish Farmers (Lantbrukarnas Riksförbund)
OECD	Organisation for Economic Co-operation and Development
ROE	Return on Equity
ROI	Return on Investment
ROA	Return on Assets

1.Introduction

1.1 Generational renewal as a European policy concern

Generational renewal has become a recurring and increasingly prominent issue within the European Union's agricultural policy discourse (European Parliament, 2025; European CAP Network, 2024). Across the EU, the farming population is ageing at a rapid pace, while the inflow of young farmers remains insufficient to ensure long-term continuity of agricultural production (Swinnen et al., 2015). According to the European Commission, fewer than 12 percent of farmers in the EU are under the age of 40, while more than one third are over 65 (European Commission, 2025a). This demographic imbalance has

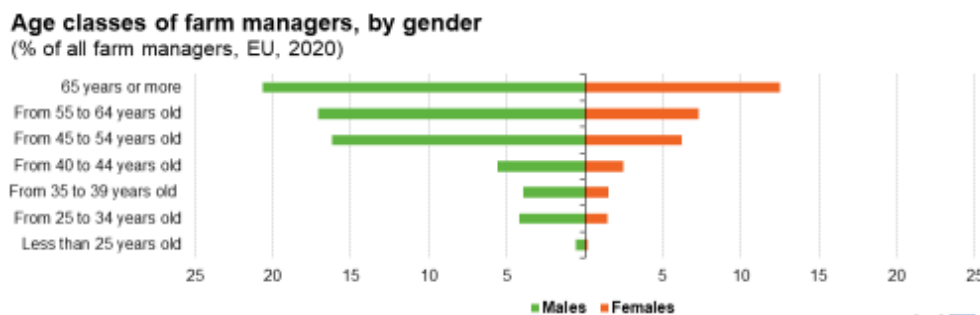


Figure 1. Age classes of farm managers, by gender (% of all farm managers, EU, 2020). Source: Eurostat (2020).

raised concerns not only regarding future food production, but also regarding rural development, land use, innovation capacity and the resilience of agricultural systems more broadly (European Parliament, 2025). In response to these developments, generational renewal has been explicitly identified as one of the key objectives of the Common Agricultural Policy (European CAP Network, 2024). Within the current CAP framework, several instruments are directed towards young farmers, including complementary income support, start-up aid and targeted investment support (European Commission, 2025a). These measures are intended to reduce entry barriers, facilitate establishment and improve the

economic conditions for young farmers during the initial years of operation. At the policy level, generational renewal is thus largely framed as a matter of structural support and long-term sustainability, positioning young farmers as central actors in the future of European agriculture (European Commission, 2025b).

However, while the CAP provides a common institutional framework, its instruments are applied within highly heterogeneous agricultural systems. The practical meaning of generational renewal therefore varies significantly between Member States, depending on national market conditions, farm structures and financial environments (European CAP Network, 2024). This highlights the need to move beyond the EU-level policy perspective and examine how generational renewal is shaped within specific national contexts (European Parliament, 2025).

1.1.2 From EU policy to national agricultural realities

Although CAP measures are designed at the European level, their effects are mediated through national implementation and national agricultural economies (European CAP Network, 2024) (Matthews, 2015). The extent to which young farmers benefit from policy support depends on how these measures interact with existing market structures, land prices, production systems and access to capital (European Parliament, 2025). In many cases, CAP support constitutes only a limited share of total farm income and investment capacity, especially in capital-intensive production systems (European Commission, 2025a).

This gap between policy ambition and economic reality has been noted in previous research, which suggests that structural support alone may be insufficient to address the financial challenges associated with farm establishment and succession (European Parliament, 2025; Moraru, 2018).

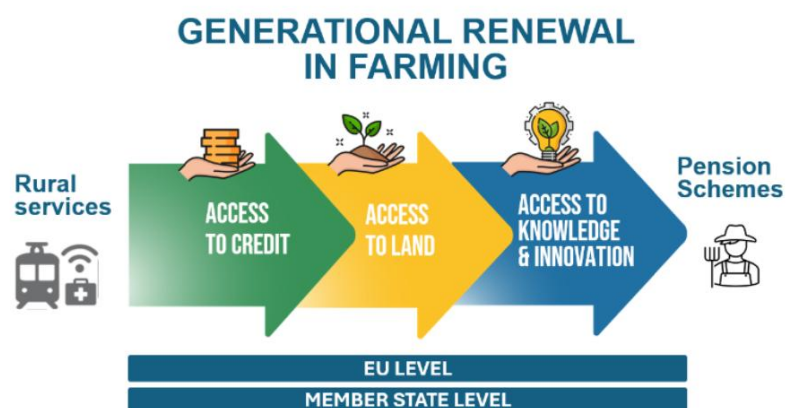


Figure 2. Generational renewal in farming.

Source: European CAP Network (2024), reproduced via AgriVentures.

Instead, broader economic conditions, including profitability, price volatility and access to external financing, play a decisive role in shaping the feasibility of generational renewal at the farm level (OECD, 2019). As a result, understanding generational

renewal requires attention to both policy design and also to the financial mechanisms that enable or constrain farm establishment in practice (European CAP Network, 2024).

These considerations are particularly relevant in countries where agriculture operates largely under market conditions (Zagata & Sutherland, 2015), with limited income stabilisation outside CAP support (OECD, 2019). Sweden represents such a context.

1.1.3 The Swedish agricultural context and financial exposure

Swedish agriculture is characterised by a high degree of market orientation, relatively large average farm sizes and significant capital intensity (OECD, 2021; Swedish Board of Agriculture, 2023). Farms typically operate as independent business enterprises, where long-term economic viability depends on competitiveness, productivity and financial stability rather than on guaranteed income support (Swedish Board of Agriculture, 2023). Investments in land, machinery, buildings and technology are substantial, and production is exposed to both market risks and biological risks related to weather and climate variability (Barry & Ellinger, 1997).

In this context, establishment and generational transfer often require large-scale investments and long-term financial commitments (OECD, 2021). The economic threshold for entering agriculture is therefore high, particularly for young farmers who lack accumulated capital or collateral (European Parliament, 2025). While CAP support and national subsidies may contribute to income stability, they rarely cover the full financial requirements associated with establishment or expansion (Zagata & Sutherland, 2015).

As a consequence, access to credit becomes a central condition for generational renewal in Swedish agriculture (Zagata & Sutherland 2015). Banks and other credit institutions play a crucial role in determining whether young farmers are able to establish themselves, take over existing farms or invest in necessary assets (European Parliament, 2025). This shifts the focus from policy instruments to financial assessment processes at the firm level (Stiglitz & Weiss, 1981).

1.1.4 Farm establishment, succession and capital requirements

Farm establishment and succession in Sweden typically occur either through family-based generational transfer or through external acquisition (Swedish Board of Agriculture, 2023; OECD, 2021). In both cases, the process involves significant financial restructuring. Even in family successions, where land ownership may be transferred at favourable conditions, substantial investments

are often required to modernise production, refinance existing debt or buy out siblings (Fischer & Burton, 2014). For new entrants without family ties to an existing farm, the financial burden is usually even greater (European CAP Network, 2024).

These processes are characterised by long investment horizons and delayed returns. Agricultural investments often have payback periods extending over several decades, while profitability margins remain relatively low and volatile (OECD, 2019; FAO, 2022). This creates a financial environment where cash-flow stability, solvency and debt-servicing capacity are of critical importance (Barry & Ellinger, 1997) . From a lender's perspective, agriculture therefore represents a sector with inherent risk, requiring careful financial assessment (Barry and Ellinger, 2012).

For young farmers, these financial realities are often perceived as major barriers to entry (Sutherland, 2012) . High debt levels, uncertainty regarding future income and concerns about banks' willingness to lend are frequently highlighted as obstacles to establishment among young farmers (Leonard et al., 2017; Zagata & Sutherland, 2015) . These perceptions influence both entry decisions and long-term business strategies, and they may discourage potential successors from remaining in or entering the sector (May et al., 2019).

1.1.5 Financial assessment and lending practices in agriculture

Lending decisions in agriculture are typically based on formalised financial assessment models that evaluate the borrower's ability to generate sufficient and stable cash flows over time (Barry & Ellinger, 2012). These assessments rely on financial key figures related to profitability, liquidity and solvency, as well as on

qualitative factors such as management capacity and production strategy (Briggeman et al., 2009). Due to information asymmetries between lenders and

borrowers, these models often adopt a conservative approach to risk (Stiglitz and Weiss, 1981).

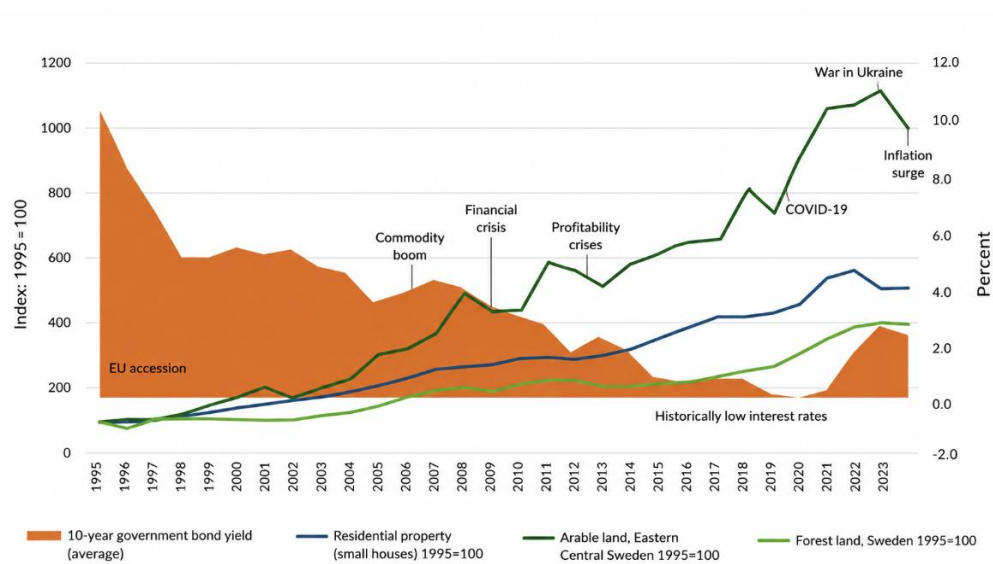


Figure 3. Development of arable land prices, forest land prices, residential property prices and 10-year government bond yields in Sweden, 1995–2023 (1995 = 100). The figure illustrates the substantial increase in agricultural land values relative to interest rates over time. Source: Adapted and translated from Federation of Swedish farmers Market Analysis (2024)

Young farmers and new entrants may be particularly affected by these assessment practices. Limited financial histories, high initial debt ratios and reliance on future business performance may be interpreted as indicators of elevated risk, even when long-term prospects are favourable (Stiglitz & Weiss, 1981). This raises the question of whether the perceived economic barriers experienced by young farmers correspond to the actual criteria applied by banks, or whether there is a disconnect between perception and assessment (Briggeman & Gloy, 2015).

Addressing this question requires a business-economic perspective that links subjective experiences with objective financial indicators. It also requires empirical insight into how financial institutions evaluate agricultural investments and how young farmers interpret these evaluations (Creswell & Plano Clark, 2018). This intersection forms the core focus of the present thesis.

1.2 Problem

Despite the strong policy emphasis on generational renewal at EU level, farm establishment and succession remain economically challenging processes at farm level (European Parliament, 2025; European CAP Network, 2024). In Sweden, where agriculture operates under largely market-based conditions, these challenges are closely linked to access to capital, long investment horizons and exposure to income volatility (Barry & Ellinger, 1997; Hansson et al., 2013). While policy instruments such as CAP support may influence income expectations, they do not remove the need for external financing in establishment and transfer situations (European Commission, 2025a).

A substantial body of literature and policy reporting highlights that young farmers perceive economic conditions for entry into agriculture as particularly restrictive (Leonard et al., 2017; May et al., 2019; European Parliament, 2025). Commonly cited barriers include high initial debt, limited profitability, long repayment periods and a high degree of financial risk (OECD, 2019; European CAP Network, 2024). At the same time, banks and credit institutions assess loan applications using formalised financial criteria designed to manage risk under uncertainty, especially in capital-intensive sectors such as agriculture (Stiglitz and Weiss, 1981; Barry and Ellinger, 2012).

What remains unclear is the extent to which these two perspectives coincide. Much of the existing research either focuses on farmers' subjective perceptions of economic barriers or analyses financial indicators at an aggregate level (Briggeman et al., 2009; OECD, 2021). Less attention has been paid to the relationship between perceived economic constraints and the concrete financial assessment criteria applied by lenders in individual credit decisions related to farm establishment and generational transfer (Briggeman & Gloy, 2015).

This lack of integration creates uncertainty about the nature of the establishment problem. If perceived barriers largely reflect objective financial constraints, then limited access to credit may be a rational outcome of farm-level economics (Barry & Ellinger, 2012). If, however, perceptions diverge from lenders' actual assessment logic, barriers may instead arise from information asymmetries,

misaligned expectations or limited transparency in credit evaluation processes (Stiglitz and Weiss, 1981; OECD, 2019). Addressing this uncertainty requires a business-economic analysis that explicitly links perceived barriers to financial key figures and lending practices (Creswell & Plano Clark, 2018).

1.3 Aim and Research Questions

The aim of this thesis is to examine the main business-economic barriers to farm establishment and generational transfer among young farmers in Swedish agriculture, with a particular focus on the relationship between perceived economic barriers and the financial assessment criteria used by credit providers.

By combining qualitative interviews with young farmers and credit actors with quantitative financial indicators commonly used in agricultural lending, the study seeks to assess whether perceived barriers correspond to objective financial constraints or whether they reflect differences in interpretation and assessment between borrowers and lenders. The analysis further considers how different establishment pathways, such as family succession and external entry, interact with financial assessment over long-term investment horizons.

1.3.1 Research Questions

To achieve this aim, the thesis addresses the following research questions:

1. How do young farmers and potential successors perceive the main economic barriers to establishing or taking over a farm, particularly in terms of debt, profitability, financial risk and investment horizon?
2. What financial key figures and assessment criteria do banks and credit institutions emphasise when evaluating farm establishment and generational transfer in Swedish agriculture?
3. To what extent do young farmers' perceived economic barriers correspond to, or differ from, the financial assessment logic applied by credit providers?

1.4 Delimitations

This study is delimited to Swedish agriculture, while the European Union and the Common Agricultural Policy are treated as a contextual background rather than as objects of analysis. The thesis does not aim to evaluate the effectiveness of CAP measures or to compare policy outcomes across Member States. Instead, EU-level policy is used to frame the broader context in which expectations and perceptions of economic conditions are formed.

Empirically, the study focuses on a limited number of semi-structured interviews with young farmers and representatives of credit institutions, complemented by financial key figures obtained from banks, sector organisations such as LRF, and secondary data sources. The limited sample size means that the study does not seek statistical generalisation, but rather analytical insights grounded in theory.

The financial analysis is restricted to a selected set of key indicators commonly used in credit assessment, such as debt ratios, profitability measures, repayment capacity and cash-flow stability. Long-term investment calculations are used to illustrate typical establishment scenarios over a 20- to 25 year horizon, but do not constitute forecasts or normative recommendations.

Finally, the study does not address social, cultural or lifestyle motivations for entering agriculture, nor does it analyse consumer behaviour or food market demand. These aspects are excluded in order to maintain a clear business-economic focus and to allow sufficient analytical depth within the scope of a master's thesis in business administration.

3. Theoretical framework

3.2 Credit Rationing Theory

3.2.1 Theoretical origins in information economics

Credit rationing theory originates in information economics, a field that emerged during the 1970s as a reaction to the strong assumptions of perfect information in earlier neoclassical models. Traditional economic theory assumes that markets clear through price adjustments. In such models, excess demand is expected to

disappear as prices increase. Early contributions within information economics questioned this logic and showed that when information is imperfect and unevenly distributed, price mechanisms alone may not lead to efficient outcomes (Akerlof, 1970; Arrow, 1971).

Akerlof's (1970) analysis of quality uncertainty demonstrated how asymmetric information can result in market failure, while Arrow (1971) highlighted how uncertainty and risk fundamentally affect economic decision-making. Together, these contributions challenged the idea that markets automatically reach efficient equilibria and opened the door to alternative ways of understanding market behaviour. This shift was particularly important for financial markets, where lenders and borrowers rarely operate with the same level of information.

The most influential contribution to credit rationing theory was made by Stiglitz and Weiss (1981). They directly challenged the assumption that higher interest rates necessarily balance supply and demand in credit markets. Instead, they showed that under conditions of asymmetric information, credit markets may exhibit persistent excess demand even when borrowers are willing to pay higher interest rates. This marked a clear break from standard product market logic and reframed credit rationing as a rational and structural outcome rather than a temporary market distortion.

A key insight in Stiglitz and Weiss (1981) is that credit markets function differently from markets for goods. While higher prices in product markets typically reduce demand, higher interest rates in credit markets can change the composition of borrowers by attracting relatively riskier applicants. As a result, lenders may rationally prefer to limit the quantity of credit supplied instead of raising interest rates beyond a certain level. In theoretical terms, this behaviour constitutes credit rationing.

Within business economics and financial research, credit rationing theory has since become a central framework for analysing lending behaviour in sectors characterised by high uncertainty, long investment horizons and heterogeneous borrowers. Agriculture displays all of these characteristics, which makes the theory particularly relevant for farm-level financial analysis (Hoff & Stiglitz, 1990; Barry & Ellinger, 2012).

3.2.2 Credit rationing and firm-level financial performance

Although credit rationing theory is rooted in information economics, its implications are closely connected to firm-level financial performance and risk assessment (Stiglitz & Weiss, 1981; Barry & Ellinger, 1997). From a lender's perspective, lending decisions are not based solely on expected profitability.

Instead, they reflect how profitability interacts with financial structure, risk exposure and repayment capacity. This creates a natural link between credit rationing theory and financial performance analysis within business economics.(Stiglitz & Weiss, 1981; Barry & Ellinger, 1997; Brigham & Ehrhardt, 2017).

At the core of credit rationing lies asymmetric information between lenders and borrowers. Banks rarely have full information about borrowers' true risk profiles, managerial ability or future investment behaviour. This informational gap gives rise to two central mechanisms: adverse selection and moral hazard (Stiglitz & Weiss, 1981).

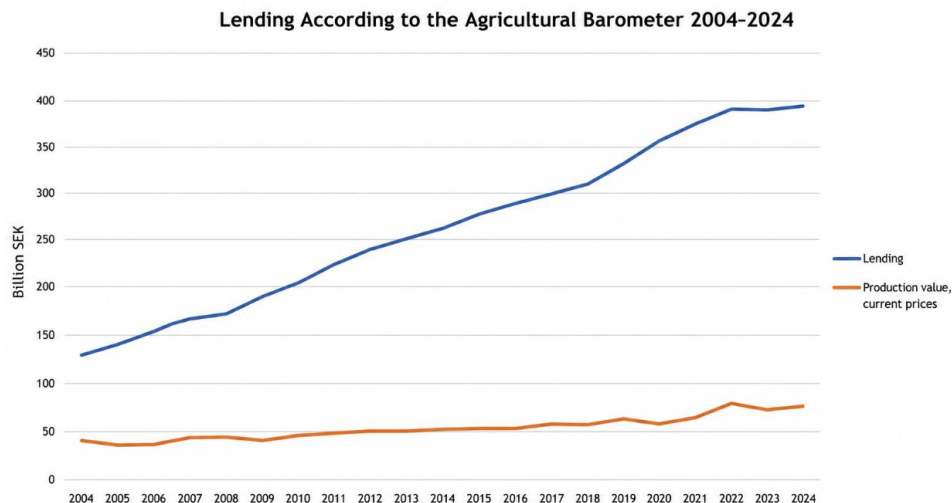


Figure 4. Development of agricultural lending and production value in Swedish agriculture, 2004–2024. The figure illustrates trends in agricultural lending and production value over time, highlighting the growing capital requirements and financial scale of the Swedish agricultural sector. Source: Author's adaptation based on data from Lantbruksbarometern and LRF Market Analysis.

Adverse selection operates before a loan contract is signed. Borrowers differ in their underlying risk characteristics, but lenders cannot perfectly distinguish between low-risk and high-risk applicants. When interest rates increase, relatively safer borrowers may withdraw from the market, while riskier borrowers remain, as they are more willing to accept higher financing costs. From the lender's point of view, higher interest rates may therefore reduce expected returns by increasing default risk rather than compensating for it (Stiglitz & Weiss, 1981).

Moral hazard arises once credit has been granted. After securing financing, borrowers may adopt riskier production or investment strategies, since part of the downside risk is transferred to the lender. Monitoring borrower behavior is costly and often imperfect. This problem is particularly pronounced in sectors where outcomes depend on external and largely uncontrollable factors, such as weather conditions, biological processes and volatile commodity prices. Agriculture is a clear example of such a sector (Stiglitz & Weiss, 1981; Barry & Ellinger, 1997).

Taken together, adverse selection and moral hazard imply that the relationship between interest rates and expected loan returns is non-linear. Beyond a certain point, higher interest rates increase risk more than they increase revenue. Lenders may therefore find it optimal to restrict credit supply even when borrowers appear willing to pay higher rates. This insight underpins the understanding of credit rationing as a persistent and rational feature of financial markets rather than as evidence of inefficiency.

3.3.The DuPont model

The DuPont model is a framework used for analysing firm-level financial performance. The model was originally developed by the DuPont Corporation in the twentieth century as a framework for the purpose of evaluating the sources of profitability and financial performance within large industrial organisations. The framework shows various components that affect return on equity and overall showcases the financial structure and operational performance (Horrigan, 1968; Soliman, 2008).

The purpose of the DuPont model is to identify how the financial outcome is dependent on different aspects of a business performance. The model separates profitability into different drivers which provide a more nuanced understanding of what factors influence a firm's performance and how these factors integrate with each other. Because of this, the model has been applied widely in the financial world regarding financial analysis, business economics and credit assessment (Ross, Westerfield & Jordan, 2019).

The traditional 3-step DuPont model shows return on equity (ROE) as:

$$\text{ROE} = \text{Profit Margin} \times \text{Asset Turnover} \times \text{Financial Leverage}$$

This illustrates that earnings are not the only determinant of a firm's profitability, but also how efficiently a firm's assets are being used, as well as exactly how the firm is financed.

3.3.1 Components of the DuPont model

The first component of the model is profit margin. Profit margin shows the firm's ability to convert revenue into earnings. This reflects operational efficiency as well as the firm's capacity to maintain profitability under prevailing market conditions. Profit margins may fluctuate over time depending on the sector and how volatile input and output prices are. In sectors characterised by volatile markets, the profit margin is also a strong indicator of a firm's resilience as well. (Ross, Westerfield & Jordan, 2019).

Another important component is asset turnover. This measures how effectively invested capital is transformed into revenue. This indicator is especially relevant in industries where large amounts of capital are tied to productive assets. However, a low turnover does not necessarily mean that a firm is inefficient. It can also reflect different structural characteristics of a production system that is required. For example, in agriculture where investments in land, machinery and buildings are required, the business might reflect a low turnover ratio despite a functioning business (Barry & Ellinger, 1997).

The third component of the DuPont model is financial leverage. This reflects a relationship between debt financing and owner's equity. Financial leverage can enhance returns on equity if returns on assets exceed borrowing costs. However, it can also increase financial exposure by creating fixed payment obligations. As a result, leverage can act both as a source of growth and a source of financial vulnerability. Because of this, the sustainability of leverage is dependent not only on the current profitability in the firm but also overall stability and the predictability of future cash flows. (Brealey, Myers & Allen, 2020).

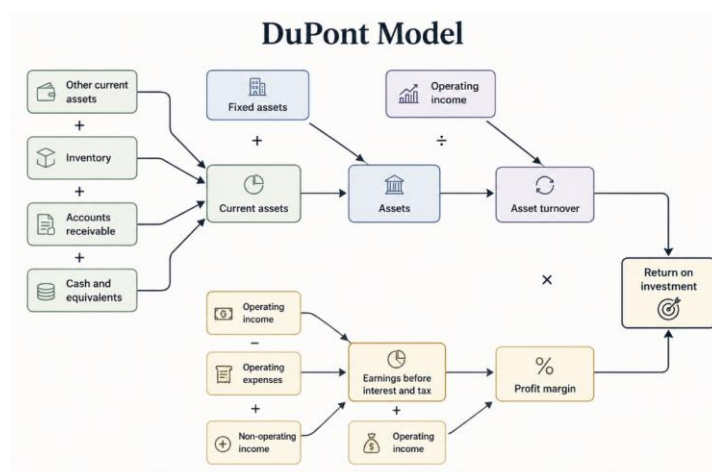


Figure 5. The DuPont Model. The figure illustrates how return on investment (ROI) is determined through the interaction between profit margin and asset turnover, Source: Author's own illustration based on Horrigan (1968), Soliman (2008), and Ross, Westerfield and Jordan (2019).

The figure shows the logic of the DuPont model by showcasing the decomposition of the financial performance into underlying drivers. The model shows that profitability is influenced by earning generation, as well as efficiency.

The DuPont model and the included components should not be interpreted in isolation, but to gain a better and more nuanced evaluation of a firm together. The same level of return on equity can emerge from different financial structures and risk profiles. It is possible that a business may achieve strong profitability through efficient operations and modest leverage. However, another business can generate similar returns but primarily through extensive borrowing. These perspectives are crucial, especially from a lender's perspective.

Moreover, from a lender's perspective, these distinctions are important since it affects a firm's resilience to adverse economic conditions and its capacity to meet future debt obligations.

The model therefore provides more than a measure of financial performance. It also offers a framework for understanding how profitability, capital intensity and financing decisions interact to shape both economic outcomes and perceived credit risk.

3.4 Theoretical synthesis

Together, credit rationing theory and DuPont model provide a complementary framework for understanding financial barriers to firm establishment and generational renewal. Why access to external finance may become restricted under conditions of imperfect information is clearly understood and described with the credit rationing theory. Simultaneously, the DuPont model provides a structured approach for analysing the financial indicators through which lenders evaluate risk, repayment capacity and long-term financial sustainability.

Credit rationing theory, as mentioned above, suggests that lending decisions are not determined only by expected profitability. Instead, the lenders work under uncertain conditions where future borrower performance is not perfectly observed. As a consequence, banks rely on the financial indicators that are observable and use them to determine the range of risk when allocating credit. (Stiglitz & Weiss, 1981; Hoff & Stiglitz, 1990). This implies that access to finance is, to a high degree, dependent on how lenders interpret the borrower's financial position, repayment capacity and ability to withstand market volatility.

The DuPont model provides insight into financial dimensions underlying these assessments. When dividing up factors for return on equity into profit margin, asset turnover and financial leverage, the model provides us with a deeper understanding of how profitability emerges from the interaction between operational performance, capital utilisation and financing structure. (Horrigan, 1968; Soliman, 2008). From a lender's perspective, these components provide valuable information which makes it possible to evaluate a firm's financial stability and provides a measure of risk for a lender in terms of repayment.

3.4.1 Theory and agriculture

The connection between these theoretical perspectives becomes especially interesting when looking at the agricultural sector. Businesses within agriculture are, as mentioned, characterised by high capital intensity, substantial investments, as well as long investment horizons. Land, buildings, machinery and livestock often require large investments before any production revenues are observed. Simultaneously, the production is dependent on biological processes such as weather, climate, price fluctuations and changing policy conditions, such as the Common Agricultural Policy. This creates substantial uncertainty regarding future cash flows (Barry & Ellinger, 1997; Petrick, 2004; FAO, 2022).

These characteristics within agricultural firms increase the need for external financing, as well as informational challenges for lenders. Compared to other sectors, agricultural businesses often operate with a relatively low asset turnover ratio because of capital tied up in productive assets over long periods. This means that the profitability might be relatively modest relative to the total invested capital. As a consequence of this, the leverage and repayment capacity are often a central consideration for credit assessment (Barry & Ellinger, 1997).

The theoretical framework further shows that profitability alone is not sufficient for understanding access to finance. A farm can show satisfactory profitability, but at the same time possess high leverage, limited liquidity or a low cash flow. Similarly, a newly established farm can have a strong productive potential but lack collateral or accumulated equity. Under these conditions, information asymmetry can cause lenders to view these factors as indicators of elevated risk, which can affect access to credit for the farm (Stiglitz & Weiss, 1981; Petrick, 2004).

This is particularly interesting when observing generational renewal. Previous research has identified access to capital, land and external finance as some of the most significant factors contributing to the difficulties faced by young farmers

across Europe (Zagata & Sutherland, 2015; Leonard et al., 2017). Understandably, young farmers often enter the sector with limited capital and with a need to borrow large amounts to cover the necessary investments to start the business. At the same time, these young farmers might not have a long financial track record for the lender to observe. Consequently, this can affect the lending practices and assessments for the particular farm.

3.4.2 Financial assessment as a mechanism of structural selection

Beyond the individual lending decisions, the theoretical framework also shows how credit assessment can influence a broader perspective on the developments within agriculture. Credit rationing theory explains how lenders respond to uncertainty by relying on quantitative financial indicators focused on financial strength and repayment capacity. These assessment factors are understandable and rational within risk management, but can also influence what types of farms and entrepreneurs are most likely to gain access to credit (Stiglitz & Weiss, 1981; Hoff & Stiglitz, 1990).

Within agricultural economics, several scholars have discussed structural changes in agriculture and how these have increased the importance of capital for having a competitive business (Barry & Ellinger, 1997; Swinnen, 2015). Production has become increasingly capital-intensive, access to finance can affect the investment opportunities and also the distribution of ownership, expansion possibilities and whether generational renewal is possible.

This perspective means that financial assessment cannot only be understood as a technical evaluation of the repayment capacity. It may also contribute to shaping the structural development of the agricultural sector by influencing and enabling establishment pathways that are financially feasible. Moreover, access to finance therefore becomes linked not only to firm-level performance, but to a broader agricultural context concerning entry opportunities and the long-term renewal of agricultural production (Zagata & Sutherland, 2015; Leonard et al., 2017).

From this perspective, generational renewal can be viewed as the outcome of an interaction between farm-level financial performance, lender assessment processes and wider structural conditions within agriculture. Theoretical attention therefore shifts from the isolated farm business towards the broader financial environment within which establishment and succession decisions are made.

4.0 Literature review

4.1 Previous research on generational renewal and agricultural finance

There is broad existing research on agriculture in general, related to financial challenges connected with land, capital and access to credit encompassing generational renewal within the EU. While policy initiatives have increasingly focused on attracting younger generations into farming, most empirical studies show that the economic barriers remain substantial across various agricultural systems (Zagata & Sutherland, 2015; Leonard et al., 2017).

A recurring finding in the literature is that agricultural establishment has become increasingly capital-intensive over time. One has observed rising land values, technological development, as well as larger average farm sizes. This has in turn increased the financial requirements and obligations associated with starting up a farm, leading to challenges for generational renewal (Swinnen, 2015; Fischer & Burton, 2014). As a consequence of this, access to external finance has become a determinant of successful establishment.

Furthermore, several influential studies have examined the relationship between financial barriers and generational renewal in European agriculture. The article “Deconstructing the young farmer problem in Europe” by Zagata and Sutherland (2015), the researchers argue that access to land and capital are among the most significant constraints that young farmers face. The authors highlight that increasing farm sizes combined with rising land prices contributes to making agricultural establishment increasingly dependent on external financial resources.

Research has further demonstrated and established that the main barriers for young entrants into the sector are factors such as the perceived debt burden, financing requirements and the uncertainty regarding future profitability (Leonard et al., 2017; May et al., 2019). At the same time, several studies on agricultural lending indicate that there is a strong emphasis on repayment capacity, cash flow and long-term resilience when lenders make their evaluations (Barry & Ellinger, 2012; Briggeman et al., 2009).

From the perspective of agricultural finance, Barry and Ellinger (1997; 2012) further emphasise the lender's typical focus on cash flow, liquidity and financial resilience when evaluating loan applications. The research further suggests that lending in the agricultural sector differs from other sectors due to the, as already

mentioned, combination of long investment horizons and fixed assets combined with the exposure of various biological and financial determinants.

Moreover, a finding presented by Petrick (2004) demonstrates again that agricultural investments are still highly affected by information asymmetry and lender uncertainty when giving credit. This is particularly relevant in terms of credit rationing theory within agricultural credit markets and also highlights the importance of understanding both the borrower and the lender's decision-making.

4.1.1 Summary

Although studies have generated very important insights regarding establishment barriers and agricultural credit markets, much of the existing literature has examined these perspectives separately. Some studies have focused on farmers' perceived barriers and their experiences with establishment, while other studies have focused on lenders' behaviours within the agricultural sector. Consequently, there has been limited attention to examining how the farmers' perceptions correspond to the financial indicators and assessments applied by lenders in their decision-making process.

Furthermore, the existing European literature focuses on policy measures and structural change at an aggregate level. Although very important, less attention has been directed towards understanding how financial performance indicators and lending assessment, as well as perceived barriers interact within a specific national context such as Sweden.

4.1.2 Contributions

This study contributes to the existing literature by integrating perspective from agricultural finance, credit rationing theory and business economics. By combining interviews with both young farmers and credit actors, alongside financial sector data, the study provides a more comprehensive understanding of how financial barriers are experienced, assessed and reproduced within the context of generational renewal in Swedish agriculture.

Despite the growing body of research on generational renewal and agricultural finance, there are important knowledge gaps that remain. Existing studies have identified access to land, capital and external finance as significant barriers to farm establishment (Zagata & Sutherland, 2015;). Simultaneously, the research has highlighted the importance of repayment capacity, liquidity, leverage and collateral in lenders' assessments (Barry & Ellinger, 1997; Petrick, 2004).

However, these studies have been developed in parallel with each other . Studies focusing on young farmers and their perceived barriers to establishment have been produced. Additionally, other studies regarding the lending assessment behavior and financial indicators have been conducted. However, limited attention has been devoted to examining these perspectives together.

As a result, there is still limited understanding of whether the financial barriers perceived by young farmers reflect actual lending criteria, information asymmetries between borrowers and lenders, or differences in how financial risk is interpreted and evaluated. As mentioned, this gap is particularly relevant in the Swedish context where agricultural production operates under market-based conditions and where access to external finance plays a central role in both farm establishment and generational renewal.

To address this gap, the present study combines perspectives from both borrowers and lenders. By examining how young farmers perceive financial barriers and how lenders assess financial risk and creditworthiness, the study contributes to a more integrated understanding of the relationship between financial performance, lending practices and generational renewal in Swedish agriculture.

5.0 Methodology

5.1 Ontological and epistemological considerations

This study adopts a critical realist ontological position. Critical realism assumes that phenomena including the social and economic sphere exist independently of individual perception. It also acknowledges that these perceptions are mediated through human interpretation and affected by the social context. (Bhaskar, 1978; Bryman & Bell, 2017).

From a critical realist perspective, financial barriers, lending practices and market structures are viewed as real mechanisms that influence opportunities for farm establishment and generational renewal. Consequently, these mechanisms operate even when individual actors are not aware of them. However, their effects are experienced and interpreted differently by various stakeholders. As a result of this, the study does not seek to only identify the existence of financial constraints within agriculture, but also to explore how these constraints are perceived and understood by both credit lenders and young farmers in a Swedish context.

The epistemological position for this study is primarily interpretivist. The interpretivist perspective focuses on the importance of understanding social reality, and this is done through the meanings that individuals provide for their own experiences (Bryman & Bell, 2017).

Since the purpose of this study is to partly examine how young farmers perceive financial barriers and how lenders interpret financial risk and creditworthiness within agriculture, it is of high importance to accurately capture the participants' own perspectives. The semi-structured interviews are therefore considered suitable. This form of interview allows the respondents to explain their experiences, interpretations and decision-making processes in their own words. Furthermore, it allows them to speak on subjects and factors that might not originally be included in the interview questions (Bryman & Bell, 2017).

Simultaneously, the study recognises that subjective perceptions exist within several broader economic and institutional structures. This, the author would argue, is consistent with critical realism, which seeks to act as a bridge between objective structures and subjective experiences by acknowledging that both can contribute to the production of knowledge together.

This combination of critical realist ontology and an interpretivist epistemology is appropriate for the study since the research problems involve both observable economic conditions, as well as the socially constructed interpretations of these conditions and their assessments. The financial indicators and quantitative data are relatively objective aspects of agriculture, and the implications for establishment opportunities are understood differently between various groups.

Furthermore, as will be explained further below, this study adopts a mixed-methods approach. This combines both the qualitative interviews and quantitative financial indicators. This methodological choice is therefore compatible with a critical realist perspective since it allows the researcher to use multiple sources of evidence in order to gain a richer understanding of the complexity of socio-economic factors (Creswell & Plano Clark, 2018).

By integrating these experiences that are subjective, alongside the financial data that are objective, the study will generate a more comprehensive understanding of how financial barriers emerge, are perceived and assessed within the context of agricultural renewal in Sweden.

5.2 Mixed-methods methodology

This research will implement a mixed-methods methodology, combining components from both quantitative and qualitative methodologies. This approach, although not conventional, is a qualified approach in the field of business economics (Bryman & Bell, 2017). A mixed-methods approach has become increasingly common in the field of business economics. Bryman's (2009) research shows that a number of articles have used mixed-methods research methodology, 12–17% of research was based on mixed methodology. (Bryman and Bell s 594).

5.2.1 Classification of mixed methodology in terms of priority and order

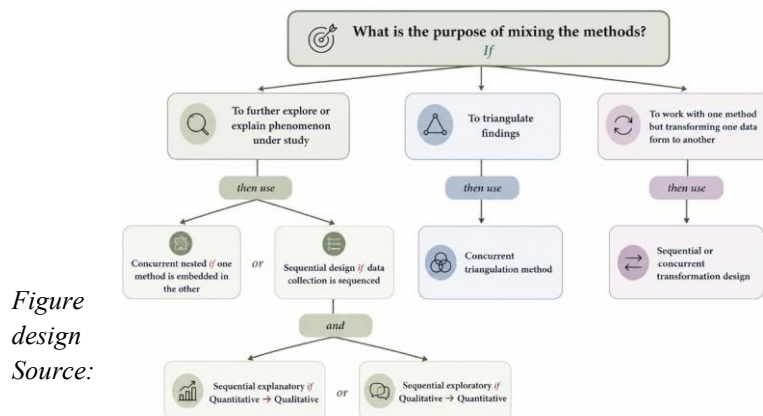


Figure design
Source:
from
Clark

6. Mixed-methods
selection framework.
Author's own
illustration, adapted
Creswell and Plano
(2018).

A number of authors, including D. L. Morgan (1998b, 2014) (and furthermore developed later by Creswell), have studied mixed methodology and developed a distinction between various forms of mixed methods using two main questions:

- Priority
- Sequence

5.2.2 Priority

Priority refers to the question of which methodology is the main component in the mixed methodology. The emphasis for this refers to the method in which the researcher collects empirical data. The model presents three different scenarios where mixed methods research can be conducted with a main focus on the quantitative (QUAN- dominant), qualitative (QUAL dominant) or an equal priority.

5.2.3 Sequencing

Sequencing refers to the order in which the quantitative and qualitative parts of the research are conducted and presented. Furthermore, this will affect the aim of the research, as well as how the results will be interpreted (Creswell & Plano Clark, 2018). Similarly to the differences in the priority, the sequencing component also suggests three various perspectives (Bryman & Bell, 2017). An explanatory design is identified when research uses a quantitative approach followed by a qualitative approach. This is where the empirical data is categorized as quantitative. Furthermore, the qualitative methods are used to explain these findings (Creswell & Plano Clark, 2018). An Exploratory design uses a qualitative

approach for collecting the empirical data, followed by a quantitative approach for categorizing and deriving conclusions (Saunders et al., 2019). A parallel design uses both the qualities of the quantitative and qualitative approaches at the same time. This is used when the researcher wants to use both approaches' advantages simultaneously (Creswell & Plano Clark, 2018).

5.3 Parallel mixed-methods design (Quan + Qual)

This research implements a parallel mixed methods design, where both the quantitative and qualitative components are conducted alongside each other. In contrast to an explanatory sequential design, where one method precedes the other, the parallel design allows both methods to contribute to the research at the same stage of the study (Bryman & Bell, 2017).

The reason for applying a parallel mixed-methods design in this thesis is connected to the aim of the research. The purpose of the study is to examine whether the perceived financial barriers experienced by young farmers correspond with the financial indicators and assessment criteria used by credit institutions. In order to examine this relationship, it is necessary to combine both quantitative financial data and qualitative insights from farmers.

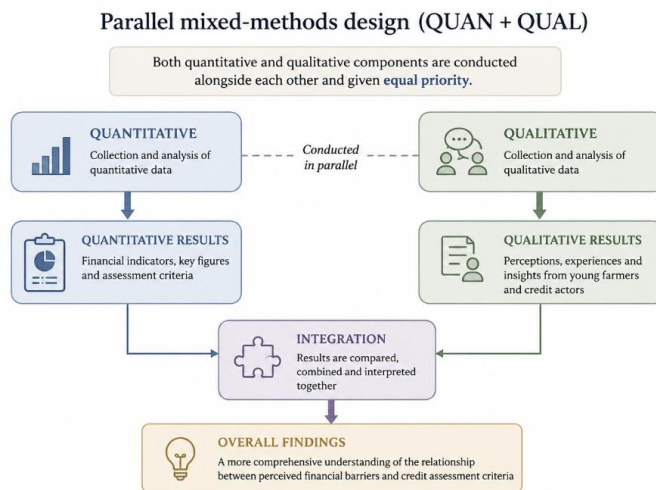


Figure 7. Parallel mixed-methods research design (QUAN + QUAL). Author's own illustration, based on Bryman and Bell (2017), Creswell and Plano Clark (2018), and Saunders, Lewis and Thornhill (2019).

The quantitative component provides a structured overview of financial conditions related to farm establishment and generational transfer. These financial indicators illustrate how the economic environment in agriculture appears from a financial assessment perspective. At the same time, the qualitative interviews

provide insight into how these financial conditions are perceived by farmers who operate within the agricultural sector (Creswell & Plano Clark, 2018).

By conducting both components in parallel, the research allows the two types of data to be analysed together during the analytical stage of the thesis (Creswell & Plano Clark, 2018). The financial indicators illustrate the objective financial conditions within the sector, while the interviews provide insight into how these conditions are interpreted by farmers in practice.

The purpose of combining these two approaches is therefore to compare the quantitative financial indicators with the perceptions expressed by farmers (Bryman & Bell, 2017) . In doing so, the research can examine whether farmers' perceived financial barriers correspond with measurable financial conditions, or whether there exists a difference between the perceptions of farmers and the financial logic applied in agricultural credit assessments.

Through this comparison, the mixed-methods approach contributes to a more comprehensive understanding of the research problem. The quantitative data illustrates the financial parameters that are commonly considered in lending decisions, while the qualitative interviews provide a deeper understanding of how these financial requirements are experienced by actors within the agricultural sector.

6.0 Empirical Data

The empirical data used in this study consist of both quantitative and qualitative data. The combination of these two forms of empirical material allows the research to capture both measurable financial indicators and the experiences of farmers operating within the agricultural sector.

The quantitative data provide an overview of financial indicators that are commonly used when evaluating agricultural investments and credit applications. These indicators illustrate the financial conditions that often form the basis of lending decisions within agricultural finance.

The qualitative data, on the other hand, consist of interviews with farmers who possess experience related to farm establishment, generational transfer or agricultural investment decisions. These interviews provide insight into how farmers perceive financial barriers and how they interpret the economic conditions associated with farm establishment.

By combining these two sources of empirical data, the research aims to compare financial indicators with farmers' perceptions of economic barriers. This approach allows the study to examine whether perceived barriers correspond with measurable financial conditions within the agricultural sector.

The figure presents the analytical procedure that is used in the qualitative component of this study. Following Braun and Clarke's framework, the interview data were systematically analysed through the 6 stages: familiarisation with the data, generation of initial codes, theme identification, theme review, theme definition and report production. The process enabled the identification of recurring patterns and themes related to financial barriers, lending assessments and generational renewal in Swedish agriculture.

Figure 8. Braun and Clarke's six-phase framework for thematic analysis.



6.1 Quantitative data

The quantitative data used in this study consist of financial key figures and sector statistics obtained from the Federation of Swedish farmers'

market analysis department. These data include financial indicators that are frequently used in agricultural financial assessments.

The indicators include key figures such as debt ratios, equity levels, liquidity indicators, profitability measures and cash flow stability. These indicators are commonly used when evaluating farm investments and when assessing the long-term financial sustainability of agricultural businesses (Barry & Ellinger, 2012; Briggeman et al., 2009).

The selection of these financial indicators is based on their relevance within agricultural finance. In capital-intensive sectors such as agriculture, lenders often evaluate a farm's financial structure, profitability and repayment capacity before granting credit. Financial indicators therefore play an important role in determining whether agricultural investments are considered financially feasible.

Within this research, these indicators serve as a quantitative representation of the financial conditions surrounding farm establishment and generational transfer. The purpose of analysing these indicators is to illustrate the financial parameters that are often considered when evaluating agricultural investments and credit applications (Barry & Ellinger, 2012; Petrick, 2004).

6.2 Qualitative interviews

The qualitative component of the empirical data consist of semi-structured interviews with farmers. The purpose of these interviews is to gain a deeper understanding of how financial barriers related to farm establishment and generational transfer are perceived by actors within the agricultural sector.

Semi-structured interviews were chosen because this method allows the researcher to explore respondents' experiences while still maintaining a certain structure in the interview process (Bryman & Bell, 2017). The interviews are therefore guided by predetermined questions, while also allowing respondents to elaborate on their experiences and reflections.

8 farmers are interviewed for the purpose of this study. In addition, 4 representatives from a financial institution are included in order to provide a complementary perspective regarding credit assessment practices within agricultural lending.

The interviews are primarily conducted digitally and each interview lasts approximately one hour. In order to ensure confidentiality, all respondents are treated anonymously in the thesis.

6.3 Snowball sampling

The respondents included in this study were identified using snowball sampling. Snowball sampling is a method frequently applied in qualitative research when the researcher aims to reach individuals with specific experience or knowledge related to the research topic (Bryman & Bell, 2017).

The initial respondents were contacted through existing networks within the agricultural sector. Some contacts were facilitated through the Federation of Swedish Farmers' market analysis department, while additional respondents were identified through contacts within Federation of Swedish Farmers Youth. These initial contacts were considered relevant for the research due to their experience with farm establishment, agricultural investment decisions and financial conditions within the sector.

After the first interviews were conducted, respondents were asked whether they could recommend additional farmers who might be relevant for the study. Through this process, additional participants were identified and contacted.

This method was considered appropriate since the research focuses on a relatively specific group of individuals within Swedish agriculture. Farmers with experience related to establishment decisions and agricultural investments represent a group that can be difficult to identify through random sampling methods. Snowball sampling therefore increases the likelihood of reaching respondents who possess relevant experience and knowledge regarding the research topic.



Figure 9. Snowball sampling process. Source: Adapted from TGM Research (2024), Snowball Sampling: Definition, Advantages and Disadvantages.

However, this method also has certain limitations. Since respondents are identified through networks and recommendations, the sample may not fully represent the entire population of Swedish farmers. Participants may refer to individuals with similar experiences or perspectives, which may create a certain degree of selection bias (Bryman & Bell, 2017). Despite this limitation, the method is considered suitable for the purpose of this research, as the objective is not statistical generalisation but rather to obtain insights into farmers' experiences and perceptions regarding financial barriers in agricultural establishment.

6.3.1 Why Snowball Sampling?

Snowball sampling in this context is considered an appropriate and favourable method due to the nature of the target sampling group. The research focuses on individuals with specific experience related to farm establishment, generational transfer and agricultural investment decisions. This is a relatively narrow population. Such respondents are not easily identifiable through random or systematic sampling strategies, which makes the network-based recruitment a practical approach for finding relevant empirical material (Bryman & Bell, 2017; Creswell, 2018).

At the same time, the use of snowball sampling introduces several methodological limitations that must be acknowledged. Since respondents are recruited through existing networks, there is a significant risk of sample homogeneity. Participants might refer to individuals with similar backgrounds, production structures, opinions or other perspectives which can limit the variation in the data. This can furthermore lead to a reduced likelihood of capturing various experiences and perspectives. Moreover, in this particular sector, agriculture, informal networks and shared informal and formal institutional contexts may reinforce similar viewpoints. (Bryman, 2016). An additional limitation concerns the researcher's prior or existing relationship with some of the respondents. As part of the sample were accessed through existing networks, including organisational involvement within Federation of Swedish Farmers Youth there is a risk that pre-existing relationships may influence both the selection of participants and the interaction during the interviews. Additionally, this may affect how respondents express critical perspectives, as well as how responses are interpreted. These factors can increase the depth of insights but also introduce bias and reduce analytical distance. This highlights the importance of reflexivity in qualitative research (Creswell, 2018; Silverman, 2016).

To mitigate these risks, efforts were made to include variation in terms of production type, geographical location and establishment pathways. However, it cannot be assured that these measures fully eliminate the structural limitations inherent in snowball sampling. The findings should therefore be interpreted with

caution, as they reflect a network-based selection rather than a representative sample of the broader population of Swedish farmers. However, this is consistent with qualitative research approaches, where the aim is analytical rather than statistical generalisation (Denzin & Lincoln, 2018).

Furthermore, to mitigate these risks further and to increase the credibility and objectivity of the empirical findings, the researcher has applied various forms of triangulation.

6.4 Triangulation

Triangulation is essential to enhance the credibility, reliability and validity of research. (Bryman & Bell, 2017). Triangulation is the process of incorporating various data sources, theories and methods to ensure a deeper understanding of the research and the conclusions drawn from it. Triangulation has become fairly common in research, especially in mixed methodology where qualitative and quantitative data are combined to gain a more extensive understanding of a subject (Creswell & Plano Clark, 2018).

6.4.1 Methodological triangulation

Methodological triangulation refers to a procedure in which the researcher applies several methods in the research (Bryman & Bell, 2017). This is confirmed to enhance the research, lead to comprehensive data and hence, extensive results which can result in a deeper understanding of the subject in question (Bryman & Bell, 2017; Creswell & Plano Clark, 2018). This research, as previously mentioned, is based on a mixed methodology combining qualitative and quantitative methodologies (Creswell & Plano Clark, 2018). The qualitative methods incorporate semi-structured interviews with a set of respondents, whilst the quantitative method consists of secondary data provided by Federation of Swedish farmers Youth, which includes key figures and statistics which serve as a cornerstone for the development of this research together with the findings and results of the conducted empirical data in terms of the interviews. By including two methodologies in the research, this enhances the validity of the research because of the extensive nature of the methodology (Bryman & Bell, 2017).

6.4.2 Theoretical triangulation

Theoretical triangulation is the procedure of including several theories in the research work to ensure a variation in frameworks (Bryman & Bell, 2017). The goal of this is to gain a complex and more nuanced understanding of various theories and how they might differ in perspectives. This can furthermore enrich the research by welcoming different viewpoints for the same research subject. Moreover, this leads to a more layered and sophisticated result, which of course, is the goal of a mixed-method research (Creswell & Plano Clark, 2018).

6.4.3 Data triangulation

Data triangulation refers to the different types of data sources that are used in the thesis (Bryman & Bell, 2017). This will also provide evidence of validity and credibility since the research will be supported by various independent variables (Saunders et al., 2019). This will essentially result in having more strings to one's bow.

For this thesis, the research has been provided with secondary data from Federation of Swedish Farmers whilst simultaneously conducting semi-structured interviews as another branch of the empirical data. These are two different and independent data sources which are used together to create a new, more complex understanding and conclusion of the subject in the thesis (Bryman & Bell, 2017).

6.5 Critical reflection

When producing a mixed-methods research study, there is a risk of the author's personal opinion influencing the collection of empirical material (Bryman & Bell, 2017).

The conclusion drawn from the research may contain a biased tone, especially in a case where the study is limited to a specific area where only certain aspects and perspectives are highlighted. It is the author who produces the research, including the research's objectives, empirical collection and the interpretation of the gathered material. Evidently, this can have an effect on the study's transferability.

(Bryman & Bell, 2013). The author is well aware of these potential risks when executing a mixed-methods research, while also acknowledging the overall potential risks regarding all research. Research is seldom entirely objective since all researchers have their own set of individualistic experiences, knowledge and opinions. (Bryman & Bell, 2017). It is therefore essential for the author to have an overall understanding of these factors when shaping the research area, theoretical framework, theories and approach to respondents.

The interviews were conducted digitally to enhance the ability to gather valuable insights from respondents in various geographical areas. This gives the author the opportunity to collect empirical data from carefully selected respondents with the competence required for formulating accurate conclusions. However, digitally conducted interviews pose a risk of dismissing essential details that can easily be perceived when conducting an interview in practical terms.

6.6 Ethical considerations

This study follows established ethical principles within social science research with particular attention to informed consent, confidentiality, data protection and research reflexivity. Since the empirical material includes sensitive financial information, ethical considerations have been central throughout the research process.

Participation in the study was voluntary and based on informed consent. All respondents received written information prior to the interviews, which outlined the purpose of the study, the nature of the questions and how the collected data would be used. In addition, verbal consent was obtained at the beginning of each interview. Respondents were informed of their right to withdraw from the study at any stage without providing a reason in accordance with general research ethics guidelines (Bryman & Bell, 2017). Furthermore, respondent validation was conducted. The respondents received the written empirical material from their respective interviews to review and accept. This respondent validation process allowed participants to confirm, clarify or adjust the content, thereby reducing the risk of misinterpretation and strengthening the ethical handling of their statements.

Confidentiality and anonymity have been strictly maintained. All respondents, including the representatives from the financial sector, are fully anonymised in the thesis. No identifying details such as name, exact locations or specific business characteristics are disclosed. This is particularly important given that the interviews may include sensitive financial information related to debt levels, investment capacity or business performance. The respondents were free to decide to what extent they wished to share such information, and no pressure was placed on them to disclose details they considered sensitive. This was highly emphasised in the communication beforehand, as well as right before the interviews started.

The interviews were not recorded. Instead, notes were taken during the interviews and subsequently compiled into written answers and summaries. To enhance

accuracy and credibility, the material, as previously mentioned, was sent back to the respondents for validation.

The study has been conducted in accordance with general ethical guidelines rather than formal ethical review procedures. Data have been handled with care and used exclusively for the purpose of this research. All materials have been stored securely and are accessible only to the author.

An additional ethical consideration concerns the relationship between the researcher and some of the respondents. As previously described, several participants were recruited through existing networks within the agricultural sector, where the researcher in some cases knows the respondents in a professional manner. To mitigate this risk of bias, the researcher has aimed to maintain a neutral and structured interview approach, ensuring that all respondents were treated consistently regardless of prior relationships. Reflexive awareness has also been applied during the analytical process in order to minimise the influence of pre-existing perceptions.

7.0 Empirical data

12 respondents have been included in this research, encompassing 8 young Swedish farmers and 4 credit lenders specialised in agricultural production. Their main production branches includes dairy, meat, crop cultivation, pig and horticultural production. The ages of the respondents range between 28- 40 years old and the farmers, including the farms, are located throughout Sweden.

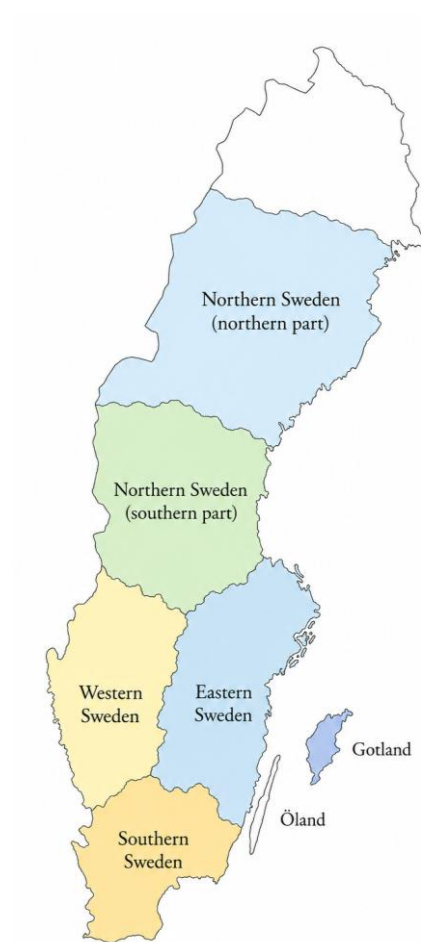


Figure 10. Geographical distribution of farm respondents included in the study. The figure presents the geographical distribution of the farms represented by the interviewed young farmers. The highlighted locations indicate the regions in which the respondents operate agricultural businesses and illustrate the spatial coverage of the qualitative sample. Source: Author's own illustration.

7.1 Results

7.1.1 Farmer respondent overview

The qualitative part of the empirical data includes 8 farmer respondents and 4 bankers. The farmer respondents are known as R1-R8. The table below summarises the main characteristics that are relevant for the thesis and its analysis. Production branch, approximate geographical context, establishment pathway and financing structure are presented below.

Table 1. Respondent characteristics and establishment pathways

Resp.	Region	Production	Pathway	Ownership structure
R1	Western Sweden	Dairy/pigs/crops	External	Share transfer; restructuring; seller finance; multi-owner
R2	Central Sweden	Beef/forage/food	Family	promissory notes ; low debt; small loan; long repayment
R3	Central Sweden	Dairy/crops/forest	Family-rel	Transfer; later buy-in; bank loan (low leverage)
R4	Northern Sweden	Animal production	External	Bank loan; top-up; private capital; existing firm
R5	Southern Sweden	Greenhouse/eggs/shop	Family	promissory notes ; existing loans; approved business plan
R6	Southern Sweden	Dairy	Family	Inheritance; parental debt; company structure
R7	Eastern Sweden	Potato/veg	External	Leasing; seller finance; bank loan; delayed purchase

R8	South-Eastern Sweden	Potatoes/root crops	Family	Bank + top finance; own capital; internal family finance
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7.1.2 Capital intensity and financial entry barriers

A common theme across the farmer interviews was the substantial capital that is required in the agricultural sector. This was expressed both by the respondents that had taken over a farm within the family and by the respondents who had entered through external succession. However, there were differences in the experience of the intensity of capital depending on the establishment pathway.

For the family successors, the capital requirement was often perceived as softened by the existing assets within the family, including low previous leverage, as well as parental flexibility and the opportunity of a promissory note. These respondents still described large values and long-term financial commitments. However, the financial threshold was partly absorbed by family arrangements that were beneficial for the new successor.

R2, described the process as economically manageable because the farm had been built up over time. The parental generation had been successful in maintaining a low debt level since the farm had been in their possession over a long period of time. The repayment was organised through a promissory note with favourable terms. Similarly, R6 described that the farm transfer involved gift and inheritance components. At the same time, the debt was retained within the family instead of requiring full external market financing at the time of the transfer.

By contrast, the external establishment cases showed that capital intensity becomes a much sharper barrier when the new entrant lacks everything from a family-owned land, accumulated equity or inherited bank relationships.

“I was not really in a position to choose. I took the financing that was available. “

R4 described not being able to choose between financing options at all, but rather having to accept the financing that was available. This respondent described the

process as dependent on a combination of bank financing, top financing and a private investor capital. Similarly to this, R7 described that the external succession would not have been possible at all without the former owner's willingness to create a gradual and flexible transition.

“I was given seven years to buy the operating company first, and only later the farm itself.”

This included leasing of machinery, seller financing and even delayed property purchase.

R4 described the “first million” as the hardest step, not only because of the investment itself, but because legal advice, consultancy and the initial structuring of the deal also required capital before the business was fully established and settled.

Furthermore, a subtheme within this perspective is that several respondents distinguished between the economic value of the farm and the farm’s capacity to generate returns. High asset values were repeatedly described as difficult to harmonise with the profitability in agricultural production. R5 described that the value of arable land in a certain region in southern Sweden was very high, while the income base was narrower. This, the respondent explained, became problematic when attempting to take over the farm, which resulted in it not being possible. Consequently, the respondent’s family’s farm, which had more diversified income streams than the previous one, appeared easier to finance and operate. Furthermore, R8 also pointed out the large amounts of capital needed, even though the respondent considered their own capital requirement lower compared to what may be required in dairy production.

7.1.3 Preliminary code summary

Table 2. Summary of Financial themes in establishment processes

Code	Meaning	Strongest examples
High capital requirement	Large investments in land, machinery, buildings, animals or operating capital	R3, R4, R7, R8
First capital threshold	Early-stage capital difficult before business history exists	R4, R7

Asset value vs earning capacity	High land/farm values relative to expected return	R5, R8, R3
Family capital reduces entry barrier	Family ownership, low leverage and promissory notes reduce entry cost	R2, R5, R6
External entrants need layered finance	Bank finance combined with seller finance, private capital or top loans	R1, R4, R7

7.2 Family succession versus external establishment

One of the clearest structural distinctions that emerged from the interviews with the farmers concerned the difference between family-based successions and external establishment. Both of these groups described the establishment as financially demanding and administratively complex. However, the interviews also suggested that the conditions under which the establishment took place differed fundamentally depending on whether the entrant had access to family-owned assets, inherited business structures and /or had long-standing relationships.

Additionally, the family succession was not described as easy or conflict-free. Several respondents described the planning process as long, encompassing legal complexity and navigation of emotional considerations as well as uncertainty regarding the ownership structures. However, despite these challenges, family successions appeared to provide access to a set of mechanisms that external entrants generally lacked within this group. These mechanisms included inherited trust within the family, existing bank relations, accumulated family capital, low historical leverage (oftentimes), and lastly, internal financing arrangements that enabled flexible repayment structures.

The family successors described that the process of the transfer had been talked about and planned for many years beforehand. R2 described how the succession

had been planned gradually over time through a dialogue within the family. This respondent explained that the parents had planned and executed a position of relatively low leverage in the business in order to enable a flexible transfer when the time was right. Consequently, much of the debt had already been amortised which made it possible for the respondent to take over the farm through a family promissory note rather than being dependent on seeking market-based financing.

Similarly, R5 also described the succession process as highly dependent on family discussions, legal planning and the willingness within the family to make the transfer work.

“We had made much faster progress within my own family regarding the transfer. We decided that I would purchase the company from my father and then gradually solve the property transfers step by step. “

The respondent compared this situation with a previous attempt to take over another agricultural business through non-family arrangements which had proven far more difficult.

In the family succession case, the respondent explained that there was a common understanding that the business should continue” which allowed the parties to structure the transfer more flexibly. The use of promissory notes had in this case also created greater room to adapt the transfer to the farm's operational realities.

Moreover, R6 described how family successions often involve ownership structures that extend beyond the property transfers, the respondent explained how the operational company was relatively straightforward and easily divided among family members. However, the ownership of land and real estate created significantly more complexity. This distinction suggests that the core difficulty in agricultural succession may not only concern the operating business itself, but the transfer of highly valuable and illiquid real estate assets accumulated over generations.

7.2.1 External establishment

External establishment followed another pattern during the transfer process. Instead of being characterised by standardised pathways into ownership, the external cases were often highly individual and dependent on unusual and creative combinations of circumstances, relationships and financing structures. None of the external successors described entering agriculture through a simple purchase through a single, ordinary bank loan. Instead, the establishment process included negotiation and a higher dependence on exceptional levels of flexibility.

As an example R1 described a long gradual ownership transfer that began through employment within the business before eventually developing into partial ownership. This opportunity also only came because of the fact that the previous farmer did not have any children who wished to take over the farm. When the initial decision came between the respondent and the previous owner, the operational structure of the farm had to be reorganised into a corporate arrangement that allowed ownership shares to be transferred stepwise over time. This model depended heavily on the former owner's willingness to remain involved in the business, accept promissory notes and prioritise continuity over immediate liquidation value.

R7 similarly described how the transition would likely not have been possible without the previous owner's active support on the farm during the transfer. Machinery was initially leased rather than purchased outright, financing arrangements were adjusted gradually and ownership was transferred over time rather than through a single transaction, same as R1. The respondent explicitly described the process as dependent on “ finding the right people” referring both to the former owners and to advisers and financial actors that were willing to support this arrangement.

R4's establishment process illustrates another aspect of external succession. This is the need to combine multiple financing sources simultaneously. As previously mentioned, R4 had to use a combination of traditional bank financing, supplementary financing and private investor capital in order to make the transfer possible. The respondent described the process as uncertain and difficult to predict, explaining that financing discussions often remain open for long periods without clear decisions.

Across the external establishment cases, a recurring pattern was therefore that establishment depended heavily on relational trust and on older generations or previous owners who were willing to prioritise continuity of the business. All respondents from an external succession described that the transaction likely not have occurred under purely market-based conditions.

Several respondents implicitly acknowledged the importance of timing and luck in external establishment.

“ I was fortunate that the previous owner wanted the farm to continue rather than simply selling to the highest bidder”

Another respondent reflected that many similar opportunities likely never materialise because there is no establishment framework for connecting external entrants with older farmers without successors.

7.2.2 Emotional commitment

An additional pattern emerging from both family and external succession cases was the role of emotions, commitment and identity. Most respondents, as previously mentioned, described highly stressful financial situations, along with extensive legal negotiations over long periods of time involving uncertainty. However, the same respondents highlighted their immense gratitude for succeeding in taking over a farm at all, and never framed the decision as regrettable. One respondent stated that “If you really want it, it is possible, but you have to be prepared to work when everyone else is off”. The respondent proceeded to highlight how the process of taking over a farm oftentimes leads to personal sacrifice and long-term dedication rather than short-term economic optimisation.

“I had luck on my side”

Moreover, one respondent described the process by emphasising that years of work, networking and persistence were the key to a successful succession. Both these narratives suggest that successful establishment is perceived not only as a result of financial planning, but also as dependent on timing, trust and access to supportive relationships.

7.2.3 Preliminary code summary – Theme 2

Table 3: Summary of Codes, Meanings and Strongest Examples

Code	Meaning	Strongest examples
Family reverses	Family members finance part of the transfer through delayed repayment	R2, R5, R6
Low inherited leverage	Previous generation's low debt enables borrowing or internal repayment	R2, R3
External succession as exception	External entry depends on unusual conditions and individual arrangements	R1, R4, R7

Seller as financier	Former owner enables entry through financing, leasing or gradual transfer	R1, R7
Relational trust	Trust between parties replaces or supplements formal market mechanisms	R1, R7, R4
Ownership complexity	Legal and ownership structures create challenges beyond ordinary financing	R1, R3, R6

7.3 Cash flow, debt and financial sustainability

A key theme that emerged from the farmer interviews was the relationship between debt, cash flow and long-term financial sustainability. The respondents frequently spoke about capital requirements, land values and collateral as visible barriers to establishment. However, the underlying issue in many interviews was whether the business would be capable of generating sufficiently stable cash flow over time to manage interest payments, amortisation and operating costs. All of this while simultaneously hoping to make further investments and private withdrawals.

For both internal and external establishment cases, the respondents repeatedly returned to the question of whether the farm could “carry itself” financially over time. It was further explained that this meant that the viability of the business was not evaluated primarily through asset values alone, but through the farm's ability to continuously generate liquidity under certain conditions.

Furthermore, several respondents described the establishment process as fundamentally dependent on demonstrating repayment capacity. R3 described how the succession calculations were based on both the purchase price of the property, and whether the farm could realistically manage future interest and amortisation obligations while continuing to cover normal production and operating costs. The same respondent emphasised that the initial transfer of the property had actually been less financially difficult than the later operational investments connected to the business itself. This is because, according to the respondent, that livestock, robots, machinery, fodder systems and production

buildings required substantial financial addition after the formal takeover had already occurred.

“ The business may look valuable on paper, but that does not mean there is money in the account”

Another respondent reflected on the mentioned dynamic, and many other respondents described situations where agricultural assets had high market value while day to day cash flow remained vulnerable due to operating expenses, amortisation, as well as fluctuating commodity prices.

Furthermore, R4 described financing as dependent on an already functioning operation with proven revenue streams. According to this respondent, the financing became possible largely because the business had demonstrated operational stability over a long period of time before the ownership transition. This was described as a reason for reduced risk even when the total debt burden remained substantial. The respondent also explained that lenders often appeared more comfortable financing a business with a demonstrated operational history than a completely new venture. This proved to be regardless of long-term growth potential, according to the respondent.

Additionally, R7 described a similar process. After operating the business for several years and demonstrating that the production model worked in practice, banks became more willing to finance the property purchase itself. This respondent explained how credibility increased gradually over time through the operational performance that had been shown, and not purely by sudden improvements in collateral or equity.

Among the family succession respondents, cash flow was also described as highly important, although the pressure was sometimes partly reduced because financing could be organised internally within the family. R2 described a five-year repayment plan structured around the farm's expected income and operating budget. Since the financing was organised through family promissory notes, the repayment conditions could be adapted more flexibly than ordinary market loans, the respondent explained. Nevertheless, the respondents still described the importance of maintaining sufficient liquidity and carefully planning investments.

Furthermore, R5 similarly emphasised the importance of detailed calculations and long-term planning when presenting the idea of the takeover to the bank. The respondents described spending significant time preparing budgets, forecasts and investment plans in order to demonstrate that the business would remain financially sustainable after the transfer as well. The respondent also highlighted

the psychological responsibility associated with taking over a business that already employed staff and operated across multiple production branches.

“ There are salaries, suppliers and customers that depend on the business continuing to function.”

Maintaining the operational continuity from the first day was essential, the respondents explained.

The interviews also revealed that respondents frequently associated financial sustainability with personal work capacity. Several respondents described periods where they compensated for weak liquidity by increasing their own labour input rather than hiring additional employees or purchasing services. One respondent stated that “you work when others are free because that is how you make it work in the beginning,” highlighting how labour intensity and financial sustainability were closely connected during establishment.

7.3.1 Preliminary code summary – Theme 3

Table 4: Summary of Codes, Meanings and Strongest Examples

Code	Meaning	Strongest examples
Repayment capacity	Establishment depends on whether production can carry interest and amortisation	R2, R3, R4, R7
Proven business history	Existing performance makes financing easier	R4, R7
Operational takeover risk	Animals, machinery and production assets create additional financial pressure after property transfer	R3, R7
Diversification as resilience	Several production branches reduce dependence on one income source	R5, R1

Investment pressure	Need for new buildings, machinery or expansion affects early financial stability	R3, R5, R8
Long-term horizon	Establishment decisions are made over long payback periods	R2, R3, R7

7.4 Perceptions of banks and financing institutions

The 4th and central theme concerns how farmers perceived banks and credit institutions during the establishment process. The farmer interviews suggest that respondents often experienced banks as focused on capital, security and history. Some farmers also described how they perceived that banks assessed the underlying business case, repayment capacity and the person behind the business.

Several family succession respondents described that the bank process was relatively easy since the farm already had a strong financial history. It was also explained that the bank already knew the farm owners and had previous knowledge of the business. R2 described how the parents' well -managed business, low debt and strong local reputation contributed to a positive bank dialogue.

R5 described the need to “sell” both the business plan and themselves to the bank. The respondent emphasised that the bank assessed both the numerical and qualitative measures. Additionally, R7 also described that the bank became more interested in lending for an investment, after the business had operated successfully for several years.

Most of the external respondents however, described the financing process as uncertain and dependent on exceptional support. R4 described waiting without a

clear yes or no and having to actively search for contacts, financiers and suitable bank relationships. R1's case shows that even when the operational business is gradually transferred, banks may still rely heavily on the former owner or property owner because the land and buildings remain the main collateral.

7.4.1 Preliminary code summary – Theme 4

Table 5: Summary of Farmer Perspectives on Financing

Code	Meaning	Strongest examples
Security and collateral focus	Farmers perceive banks as focused on assets and collateral	R1, R2, R3
Business history matters	Previous performance reduces perceived risk	R2, R4, R7
Need to sell oneself	Farmer credibility and business plan are central in bank dialogue	R5, R4
Uncertainty in bank process	External entrants experience unclear or prolonged financing processes	R4, R7
Dependence on previous owner	Former owner remains important for security, financing or legitimacy	R1, R7
Perception-assessment gap	Farmers see capital/security; banks may see repayment capacity and risk	Cross-cutting

7.5 Empirical data: Lender's perspectives

7.5.1 Repayment capacity and cash flow as primary assessment

The clearest and most consistent finding across the credit actor interviews was the central importance of repayment capacity and long-term cash flow in agricultural lending decisions. The credit actors repeatedly emphasised that lending decisions

were fundamentally based on whether the business would be able to generate sufficient and stable cash flow over time.

Several respondents explicitly stated that profitability alone was insufficient if it did not translate into sustainable repayment capacity.

“Cash flow is ultimately what repays the loan,”

One credit actor explained that lenders focus less on static asset values and more on the farm’s practical ability to generate liquidity under varying market conditions.

Another respondent described agricultural credit assessment as a process centred around survivability rather than short-term profitability maximisation. According to the respondent, the most important question was not whether the farm performed well during favourable years, but whether the business could continue servicing debt during periods of weaker prices, poor harvests or rising interest rates.

Several respondents described how repayment calculations are therefore built around long-term cash-flow projections that include operating costs, private withdrawals, amortisation requirements, maintenance investments and interest sensitivity.

One respondent described the assessment process by explaining that lenders evaluate “whether the business can carry both the operation and the financing at the same time.” Another respondent stated that “it is not enough for the farm to survive on paper, there must be enough liquidity every month.”

Several credit actors also highlighted the particular difficulty of evaluating newly established agricultural businesses. Without historical performance data, the respondents explained how they must rely more heavily on projections, assumptions and collateral structures.

“An existing business with proven cash flow is significantly easier to finance than a business that only exists as a future plan.”

This directly mirrors the experiences described by several external entrants, who explained that financing became easier only after years of demonstrated operational performance.

The respondents further explained that lenders place substantial emphasis on stress tolerance within the business. One respondent described that agricultural assessments increasingly include evaluations of how the farm would perform under rising interest rates, weaker commodity prices or temporary production disruptions. According to the respondent, agriculture is viewed as inherently exposed to

uncertainty due to weather, biological production cycles and global market volatility.

Moreover, several credit actors acknowledged that agricultural establishments often involve relatively narrow financial margins during the first years after succession or investment. One respondent explained that

“Many young farmers operate with very small margins initially, and therefore the structure of the financing becomes extremely important.”

Overall, the interviews indicate that cash flow operates as the central mechanism guiding agricultural credit assessments. Asset values and collateral remain important, but primarily because they reduce risk exposure in situations where future cash-flow capacity is uncertain.

7.5.2 Preliminary code summary – Theme 1

Table 6: Summary of Repayment capacity and cash flow summary

Code	Meaning	Strongest examples
Cash flow as core criterion	Lending decisions are fundamentally based on repayment capacity	All credit actors
Survivability under stress	Assessments focus on resilience during difficult years	Credit actors 1–4
Existing performance reduces uncertainty	Proven business history improves access to finance	Credit actors 1, 2, 4
Liquidity over static profitability	Asset values alone are insufficient without stable liquidity	Credit actors 2, 3
Long-term projection logic	Assessments are based on long repayment horizons	All credit actors

7. 6 Equity, leverage and layered financing structures

A second recurring theme concerned the role of equity, leverage and financing structure in agricultural establishment. Although the credit actors repeatedly emphasised cash flow as the core repayment mechanism, they also acknowledged

that equity levels and collateral structures strongly influence whether financing can be granted in practice.

Several respondents explained that high leverage becomes particularly sensitive in agriculture because profitability margins are often relatively low compared to the total capital required. One credit actor described agriculture as

“a sector where small changes in profitability can have large consequences because the debt levels are so high.”

According to the respondent, this makes the financing structure itself almost as important as the profitability calculation.

Another respondent explained that younger entrants often struggle not because the underlying business idea is poor, but because the combination of high investment requirements and limited initial equity creates vulnerability in the repayment structure. The respondent described how even relatively small interest rate increases may significantly affect repayment ability when leverage levels are already high.

At the same time, all of the respondents explained that ordinary bank financing alone is often insufficient in external establishment cases. Multiple respondents described how external entrants frequently require combinations of bank loans, seller financing, promissory notes, leasing arrangements or alternative financing solutions in order to complete the takeover.

One respondent explained that

“External establishments almost always need more layers in the financing,”

because the entrant lacks inherited equity and existing collateral structures. Another respondent stated that

“The financing often becomes more creative when there is no family capital behind the deal.”

Several of the respondents also confirmed that family succession cases generally appear less risky from a financing perspective. One respondent described family succession as “financially softer,” because repayment can sometimes be adapted internally through family arrangements rather than entirely through market-based conditions. Another respondent explained that family farms often already have established banking relationships and known financial histories, reducing uncertainty in the assessment process.

However, some respondents also cautioned that family succession should not automatically be viewed as financially uncomplicated. Buy-outs of siblings, investments in outdated production systems and generational disagreements could still create substantial financial pressure. Nevertheless, the overall perception among lenders was that family succession generally provides more flexibility and lower initial risk exposure than external establishment.

7.6.1 Preliminary code summary – Theme 2

Table 7: Summary Financing Vulnerability and Risk

Code	Meaning	Strongest examples
High leverage sensitivity	Small profitability changes strongly affect repayment ability	Credit actors 1–4
External entry requires layered finance	External entrants often need several financing sources	Credit actors 1, 2, 3
Family succession reduces external financing need	Family arrangements lower perceived risk	Credit actors 2, 4
Financing structure signals risk	Short-term or highly leveraged financing increases vulnerability	Credit actors 1, 3
Equity buffers matter	Limited equity increases sensitivity to volatility	All credit actors

7.6.2 Theme 3: The importance of the entrepreneur behind the business

A third theme that was talked about a lot in the interviews was the importance of the individual entrepreneur behind the agricultural business. While all credit actors emphasise financial calculations, one respondent simultaneously stressed that agricultural lending cannot be purely understood through numerical indicators.

One respondent explicitly stated that

“the person behind the numbers is often the most important part,”

explaining that management ability, credibility, long-term commitment and practical competence strongly influence lending decisions. According to the respondent, two farms with similar financial projections may still be evaluated differently depending on the perceived capability and reliability of the operator.

The same respondent described the process by saying that

“You need to believe that the person can manage difficult years, not only good years.”

Another respondent explained:

“That agriculture requires a certain level of realism”

Because repayment periods are long and operational setbacks are inevitable.

Other respondents placed somewhat less emphasis on the personal dimension, but still acknowledged that agricultural lending differs from more standardised forms of financing because the business is closely tied to the operator’s individual competence, work capacity and long-term engagement. However, it was not talked about a lot.

This finding also helps explain why several external entrants described long periods of proving themselves operationally before receiving larger financing commitments. From the lenders’ perspective, work history, practical competence and demonstrated management ability appear to function as mechanisms that reduce uncertainty and increase confidence in future repayment capacity.

Interestingly, some credit actors also acknowledged that agricultural entrepreneurs often display unusually strong long-term commitment. One respondent explained that “farmers generally fight very hard to make things work,” referring to the willingness of operators to continue working through difficult economic conditions rather than exiting the business quickly.

7.6.3 Preliminary code summary – Theme 3

Table 8: Summary of Qualitative Lending Assessments

Code	Meaning	Strongest examples
Person behind the numbers	Management ability and credibility influence lending decisions	Credit actors 1, 3

Qualitative judgement	Lending involves both financial and personal assessment	All credit actors
Operational proof reduces uncertainty	Experience and business history increase confidence	Credit actors 2, 4
Commitment as risk reduction	Long-term dedication influences lender confidence	Credit actors 1, 3
Realism and resilience	Operators must demonstrate ability to manage difficult periods	Credit actors 2, 4

7.6.4 Theme 4: Structural barriers in external establishment and generational renewal

The final major theme concerns the structural difficulties associated with generational renewal and especially external establishment within Swedish agriculture.

Several respondents acknowledged that external establishment cases are considerably more difficult to finance than family succession cases. The primary reason described was not necessarily that external entrants are less competent, but rather that they lack inherited equity, established collateral structures and historical relationships with lenders.

One respondent explained that

“The problem is often not the business idea itself, but how to make the financing structure sustainable from the beginning.”

Another respondent stated that

“There are many viable young farmers, but the investment levels are extremely high relative to the available equity.”

All respondents explained that they are aware of the structural tension between high agricultural asset values and relatively modest profitability levels. Several respondents acknowledged that this creates a difficult environment for younger entrants, particularly when farms are transferred at market value.

One credit actor explained that external establishment often depends on previous owners accepting lower immediate payment or remaining involved during a transition period. According to the respondent, purely market-based solutions may otherwise become financially impossible for younger entrants

7.6.5 Preliminary code summary – Theme 4

Table 9: Summary of Structural Challenges in Agricultural Succession

Code	Meaning	Strongest examples
External succession as structurally difficult	Lack of inherited assets increases financing difficulty	All credit actors
High asset values versus low profitability	Agricultural economics create narrow financial margins	Credit actors 1–4
Seller flexibility becomes necessary	External succession often depends on gradual transitions	Credit actors 2, 3
Structural rather than individual problem	Barriers are linked to sector economics rather than unwillingness to lend	Credit actors 1, 4
Generational renewal concern	Lenders recognise long-term demographic challenges	Credit actors 2, 4

7.7 Quantitative findings from the dataset from the Federation of Swedish farmers organisation

7.7.1 Financial indicators across production sectors

To further examine financial conditions within Swedish agriculture, the selected indicators were analysed across the largest production sectors presented in the dataset. The analysis focused on solvency, cash liquidity and equity, as these indicators were repeatedly highlighted by both farmers and lenders during the interviews.

The results indicate notable differences between production sectors. Pig production exhibited the highest average solvency ratio, amounting to 48,8%, followed by mixed farming and arable farming that both reported a solvency average of about 46%. Beef- production farms reported the lowest average solvency ratio at 38,9%.

There were also noted differences regarding liquidity. Arable farming displayed the highest average cash liquidity ratio, amounting to 409,6%. Beef-producing farms also reported a relatively high liquidity level with an average of 329,4%. Productions that showed a lower liquidity ratio on average were Dairy- and pig production with 218,6%, respectively 209%.

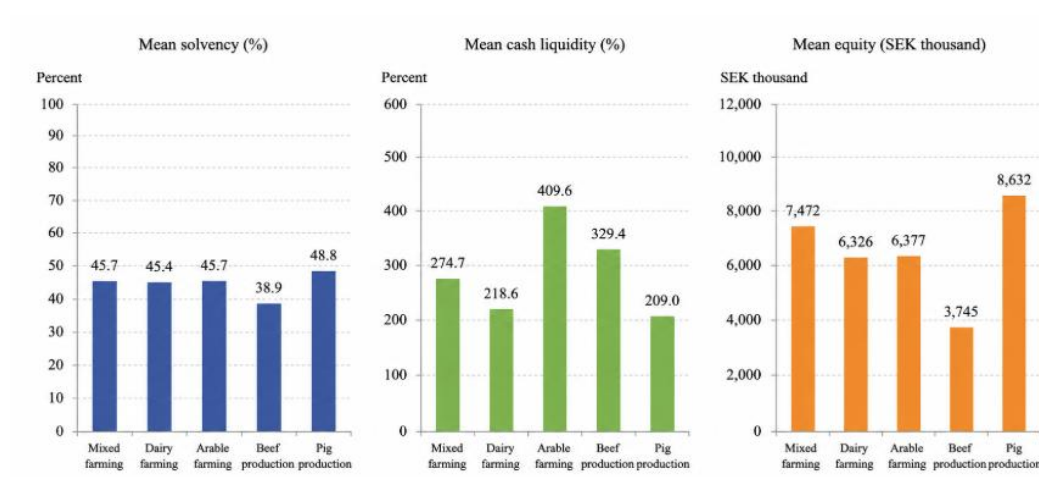


Figure 11. Showing mean solvency, cash liquidity and equity across major production sectors (n=4400) source. authors own calculations based on financial data for LRF market analysis

There was a substantial variation when furthering analysing equity levels across farm productions. The highest average equity amounting to 8,6 million SEK was pig production. The mixed farming businesses reported equity levels of 7,5 million SEK, with dairy and arable farms following with approximately 6,3 million SEK. The lowest average equity position was beef-producing farms with an average of 3,7 million SEK.

Overall, the result suggests that financial conditions vary considerably across production sectors. While solvency remains relatively similar across several sectors, larger differences are observed regarding liquidity and equity positions.

Table 10: Mean of financial indicators for various productions. Source: authors own calculations.

Production sector	Solvency (%)	Cash liquidity (%)	Equity (SEK thousand)
Mixed farming	45,7	274,7	7,472
Dairy farming	45,4	218,6	6,326
Arable farming	45,7	409,6	6,377
Beef production	38,9	329,4	3,745
Pig production	48,8	209	8,632

The results further show that differences in solvency between production sectors were relatively modest compared to the differences in liquidity and equity. Most sectors reported average solvency levels between 45% and 49%, except for beef production. In contrast, the liquidity levels varied with a range from approximately 209% in pig production to over 400 % in arable farming. Similarly, the variation regarding equity ranged from 3,7 million to 8,6 million SEK.

7.7.2 Distribution of financial conditions within the sector

Apart from the observed differences between the production sectors, the dataset also revealed substantial variation between individual agricultural farms. The average values do indicate a general strong financial position, but the distribution of the financial indicators demonstrates that a considerable proportion of firms operate under more constrained financial conditions. The average solvency ratio for the entire sample amounted to 44,8%, and the median value was 46.8%. Approximately 19% of the firms showed a solvency level of below 20%. Furthermore, around 31% reported solvency levels below 30%. This indicates that even though many firms maintain relatively strong equity positions, a substantial proportion operated with more limited financial buffers.

There was a similar pattern observed regarding liquidity. There was an observed average cash liquidity ratio of 291,9 %, but the median value was lower at 128.2%. Approximately 40% of all firms reported liquidity levels below 100%. The difference between average and median values suggests that a smaller

number of firms with particularly strong liquidity positions raise the overall average.

Furthermore, substantial variation in equity positions was observed. There was an average level of equity that amounted to approximately 6,5 million SEK, whereas the median value was approximately 2,2 million SEK. This indicated that equity ownership was not evenly distributed across firms, and a relatively small number of businesses possessed substantially larger equity positions than the majority of firms included in the dataset.

Overall, the quantitative results demonstrate that Swedish agriculture is characterised by considerable diversity in financial conditions. While there are average values that indicate favourable financial positions, the distribution of the data reveals that many firms operate with lower solvency levels, weaker liquidity positions and more limited equity buffers.

To make the calculations transparent, the distribution of solvency and liquidity was calculated by grouping firms into simple threshold categories. Solvency was already provided in the dataset and refers to the share of assets financed by equity:

$$\text{Solvency ratio} = \text{Equity} / \text{Total assets} \times 100$$

Cash liquidity was also provided as a financial indicator in the database and was used to measure short term liquidity capacity. In general, cash liquidity is calculated as:

$$\text{Cash liquidity} = \text{Current assets excluding inventory} / \text{Current liabilities} \times 100$$

The average values were calculated by summing all firm-level observations and dividing by the number of firms. The median represents the middle value when all firms are ranked from the lowest to highest. The percentage shares were calculated by dividing the number of firms in each category by the total number of firms in the dataset.

Table 11: Distribution of firms across solvency categories among Swedish agricultural firms, n = 4,400.

Solvency category	Number of firms	Share of firms (%)
Below 20%	850	19,3
20-30%	505	11,5
30-40%	523	11,9

40% or above	2522	57,3
Total	4400	100

The distribution tables further illustrate that average values alone provide only a partial picture of the financial conditions within Swedish agriculture. Although the average solvency ratio was close to 45%, more than 1300 firms reported solvency levels below 30%. Similarly, while the average cash liquidity ratio exceeded 290 %, approximately 1760 firms reported liquidity levels below 100%.

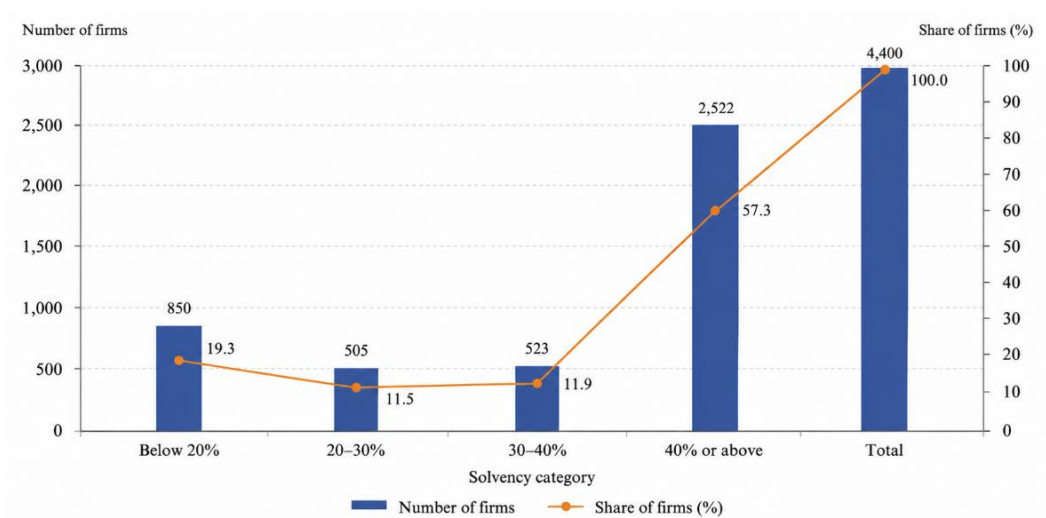


Figure 12: Distribution of solvency ratios among Swedish agricultural firms ($n=4400$) sourceS: authors own illustration based on calculations.

These findings demonstrate that financial conditions vary considerably across agricultural business. While some firms maintain strong liquidity and equity positions, others operate with more limited financial buffers and lower solvency levels.

7.7.4 Capital intensity and balance-sheet structure

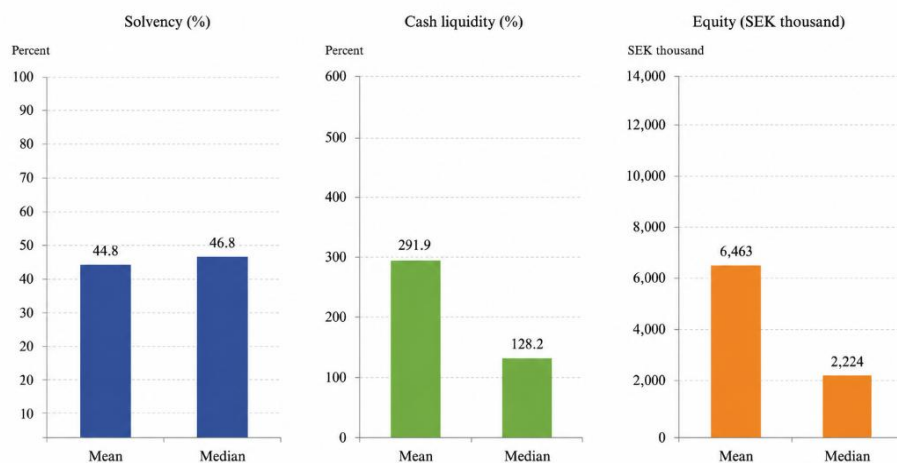


Figure
13:
Mean
and

median values of selected financial indicator among Swedish agricultural firms (n=4400) source: Authors calculations based on financial data från LRF Market analysis.

The dataset further illustrates the capital-intensive nature of Swedish agriculture. The average balance-sheet total amounted to approximately 17,7 million SEK, while the median value was approximately 8,3 million SEK. This demonstrates the substantial capital requirements associated with agricultural production and illustrates the scale of assets required to operate modern agricultural business.

The considerable difference between mean and median values suggests that a relatively small number of firms possess substantially larger asset bases than the majority of businesses included in the sample.

Nevertheless, even the median value indicates that agricultural production typically requires significant investments in productive assets. The findings highlight the importance of long-term financing structures within agriculture and provide an indication of the financial scale associated with farm ownership and operation.

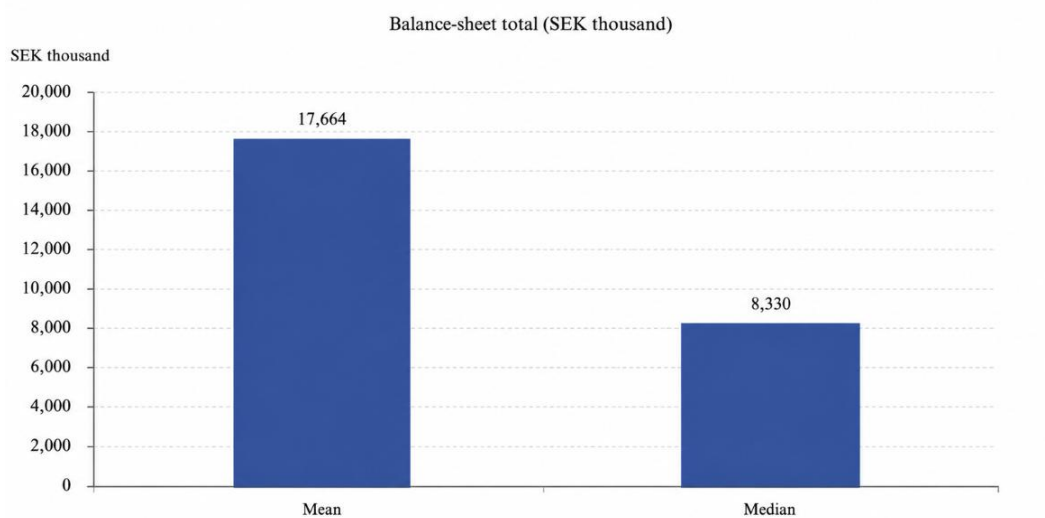


Figure 14: Mean and median balance-sheet total among Swedish agricultural firms (n=4400)
Source: Author's calculations based on financial data from LRF Market Analysis.

The large difference between the mean and median values suggests that agricultural firms vary substantially in size and asset ownership. While some businesses operate with relatively modest asset bases, others control significantly larger amounts of capital. This variation can be observed across production systems as well as between individual firms within the same production sector.

7.7.5 Summary of quantitative findings

Taken together, the quantitative analysis demonstrates that Swedish agricultural firms operate within a highly capital intensive financial environment. While average solvency levels indicate a relatively strong equity position across the sector, substantial variation exists between individual firms and production systems. Moreover, the results show that liquidity conditions and equity ownership are unevenly distributed across agricultural business.

8.0 Discussion

8.1 Beyond access to credit: generational renewal as a problem of financial structure

A central contribution of this study is that it challenges the common policy narrative that generational renewal is primarily constrained by insufficient access to credit. While both farmers and lenders acknowledged financing difficulties, the empirical material suggests that the underlying challenges lie deeper within the financial structure of modern agricultural production.

The quantitative findings indicate that many agricultural businesses operate within a structural configuration characterised by high asset intensity, relatively modest returns on invested capital and substantial leverage requirements. From this perspective, the problem is not simply whether credit is available, but whether the economic characteristics of the sector generate sufficient financial resilience to support additional debt accumulation.

This distinction is important because it shifts the analytical focus away from lending availability and towards the economic viability of debt-financed establishment itself. Previous studies have frequently interpreted establishment barriers through the lens of market access and credit constraints (Zagata & Sutherland, 2015). These present findings suggest a more nuanced interpretation where financing constraints emerge as a consequence of the underlying economics of agricultural production rather than as an independent obstacle imposed by financial institutions.

In this sense, generational renewal may be understood not only as a succession challenge but also as a capital structure challenge.

8.2 Reinterpreting credit rationing theory in a capital-intensive agricultural context

The findings from the study show support for the credit rationing theory, but they also suggest that explanatory power can be extended when one applies it to agriculture.

Stiglitz and Weiss (1981) conceptualised credit rationing theory as a consequence of information asymmetries between borrowers and lenders. However, the empirical material shows that information asymmetry alone is not the only explanation for the barriers to establishment in Swedish agriculture.

Instead, lenders often appear to possess extensive information regarding both applicants and production systems. Agricultural banks specialise in the sector and frequently maintain long-term relationships with borrowers. Consequently, the findings suggest that lending restrictions may arise not only because information is imperfect but because the underlying financial characteristics of agricultural businesses create objectively elevated exposure to risk. This finding contributes to the literature by suggesting that agricultural credit rationing may be driven simultaneously by informational uncertainty and structural financial vulnerability.

In other words, lenders are not merely rationing credit because they know too little, but they may also be rationing credit because observable financial

conditions themselves generate legitimate concerns regarding long-term repayment capacity.

8.3 The role of relational capital in agricultural succession

One interesting finding concerns the role of relational capital for generational renewal. The literature often explains succession advantages through inherited assets, land ownership and accumulated equity (Fischer & Burton, 2014). These factors are clearly important; however, the interviews suggest that another form of capital may be equally influential: relational capital.

Family successors inherit not only financial assets but also established banking relationships, historical business records, lender trust and organisational legitimacy. These resources reduce uncertainty for lenders and facilitate access to financing under conditions that external entrants often struggle to obtain.

Viewed from this perspective, family succession can be interpreted as a mechanism for transferring both economic and informational advantages across generations. Consequently, barriers to establishment are not distributed equally among individuals. They are shaped by differential access to networks, institutional continuity and accumulated trust.

8.4 Dupont analysis and the paradox of agricultural profitability

The DuPont framework provides another important lens through which the findings can be interpreted. A superficial interpretation of profitability might suggest that businesses generating positive returns should be capable of attracting financing. However, the findings indicate that profitability alone provides an incomplete picture of establishment feasibility. The DuPont framework reveals how profitability must be interpreted alongside asset utilisation and financial leverage.

Several production systems displayed characteristics consistent with what may be termed a profitability paradox. Businesses can appear operationally viable while simultaneously generating insufficient returns relative to the capital required for establishment. In other words, agricultural firms might produce acceptable operating results but still struggle to generate financial returns commensurate with their asset base. This distinction is relevant from a lender's perspective since it helps explain why lenders repeatedly emphasised repayment capacity rather than profitability alone.

The findings therefore suggest that cash flows function as a more meaningful indicator of financial sustainability than traditional profitability measures in highly capital-intensive sectors. This observation supports previous work by Barry and Ellinger (2012) but it also demonstrates how the DuPont framework can be integrated with agricultural credit analysis to provide a more nuanced understanding of lending decisions.

8.5 A tension between policy ambitions and financial rationality

Additionally, it is important to point out that the findings in the study point towards suggest a broader structural tension.

European and Swedish agriculture policy has been increasingly emphasising generational renewal as a strategic objective (European Commission, 2024). However, the empirical material suggests that the financial logic governing establishment decisions may operate according to different principles.

From a policy perspective, increasing the number of young farmers is desirable for reasons related to innovation, food security and rural development. However, from a financial perspective, establishment cases are evaluated according to repayment capacity, leverage exposure and downside risk. The findings therefore suggest that political ambitions and financial rationality are not necessarily aligned.

Moreover, it is important to note that this observation does not imply that either perspective is incorrect. Rather, it highlights that generational renewal is shaped by the interaction between two institutional systems pursuing different objectives. The challenge may therefore be less about persuading banks to lend and more about designing institutional arrangements that can reduce the financial risk associated with establishment.

9.0 Conclusion

The aim of this thesis was to examine the main business.economic barriers to farm establishment and generational renewal among young farmers in Swedish agriculture, with particular focus on the relationship between perceived financial barriers and the financial assessment criteria applied by credit providers.

The study sought to answer the following research questions:

1. How do young farmers and potential successors perceive the main economic barriers to establishing or taking over a farm, particularly in terms of debt, profitability, financial risk and investment horizon?
2. What financial key figures and assessment criteria do banks and credit institutions emphasise when evaluating farm establishment and generational transfer in Swedish agriculture?
3. To what extent do young farmers' perceived economic barriers correspond to, or differ from, the financial assessment logic applied by credit providers?

Regarding the first research question, the findings indicate that young farmers perceive high capital requirements, debt exposure, long repayment horizons and uncertainty surrounding future profitability as the primary barriers to establishment. These barriers were particularly pronounced among externally established farmers who lacked inherited assets, existing equity and established banking relationships. The results suggest that entering agriculture increasingly requires substantial financial commitments that may exceed the resources available to many young entrants.

Regarding the second research question, the study found that lenders place considerable emphasis on repayment capacity, liquidity resilience, leverage levels, equity and long term cash flow stability when assessing establishment projects and succession processes. Although profitability remains important, lenders generally viewed sustainable cash flow and financial resilience as more critical than short term earnings. Credit assessments therefore focus primarily on a farm's ability to withstand future uncertainty while maintaining repayment capacity over extended investment horizons.

Regarding the third research question, the findings reveal substantial overlap between farmer's perceptions and lender's assessment criteria. Both groups recognised high capital intensity, leverage sensitivity and repayment challenges as central characteristics of modern agriculture. However, differences emerged in how these conditions were interpreted. Farmers often described barriers through experiences of debt burdens, collateral requirements and financing difficulties, whereas lenders framed the same conditions through concepts such as risk management, liquidity resilience and repayment probability. The results therefore suggest that the perceived barriers are largely grounded in objective financial conditions rather than misunderstandings alone, although differences in communication and interpretation contribute to the perception of financing systems as restrictive.

Overall, the findings indicate that financial barriers to generational renewal in Swedish agriculture are primarily structural in nature. The study demonstrates that modern agricultural production is characterised by high capital intensity, substantial leverage requirements and relatively modest return in relation to invested capital. Under these conditions, access to finance becomes closely linked to long-term repayment capacity and financial resilience.

The findings further highlight important differences between family succession and external establishment pathways. Family succession often functions as an informal support mechanism through inherited assets, accumulated equity, existing banking relationships and institutional trust. External establishment, by contrast, frequently depends on layered financing structures involving seller financing, leasing arrangements, gradual ownership transfers and other hybrid solutions. This suggests that generational renewal is influenced not only by access to financial capital, but also by access to relational and institutional resources.

From a theoretical perspective, the findings support credit rationing theory by demonstrating how uncertainty, risk and exposure and information asymmetries shape lending decisions within agriculture. At the same time, the DuPont framework contributes to understanding how profitability and leverage interact with each other in order to influence lender assessments. Together, these theories provide a comprehensive explanation of why financially viable agricultural projects may still encounter financing constraints.

The study therefore concludes that barriers to generational renewal cannot be explained only by limited access to credit. Rather, they emerge through the interaction between high capital requirements, financial risk, repayment uncertainty and lending practices designed to manage long-term exposure under uncertain conditions. As a consequence, the challenge of generational renewal extends beyond individual financing decisions and reflects broader structural characteristics of agricultural production.

9.2 Contribution of study

This thesis contributed to the literature on agricultural finance and generational renewal by integrating farmers' experiences, lenders perspectives and sector-level financing indicators within a singly analytical framework. By combining Credit rationing theory with the DuPont model, the study provides a business-economic explanation of how financial structures and lending assessments shape establishment opportunities in Swedish agriculture.

Furthermore, the findings contribute to existing research by highlighting the importance of relational and institutional capital in succession processes and by demonstrating that external establishments frequently depend on hybrid financing arrangements rather than conventional lending alone.

9.3 Future research

Several opportunities for future research emerge from this study.

First, future studies could investigate generational renewal in other European countries in order to compare how different agricultural structures, land markets and financial systems influence establishment opportunities. Such comparative studies would contribute to a broader understanding of how financial barriers vary across institutional contexts.

Second, further research could examine hybrid financing arrangements in greater depth. Since many external establishment cases relied on combinations of seller financing, leasing arrangements and gradual ownership transfers, additional research could explore how these mechanisms function and whether they provide sustainable pathways for future entrants.

Third, future research could investigate the role of relational and institutional capital in agricultural succession processes. While financial capital has received considerable attention in previous literature, the findings of this study suggest that trust, reputation, historical relationships and organisational continuity may play equally important roles in facilitating access to finance.

Finally, longitudinal studies following young farmers over time would provide valuable insight into how financial conditions, lending relationships and business performance evolve throughout the establishment process. Such studies could further improve understanding of the long-term sustainability of different establishment pathways within agriculture.

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Popular science summary

Swedish agriculture is facing a major challenge regarding generational renewal. A large share of farmers are approaching retirement age, while relatively few young people are entering the sector. At the same time, modern agriculture has become increasingly capital intensive, requiring substantial investments in land, buildings, machinery and livestock. As a result, access to finance has become an important factor determining whether young farmers are able to establish themselves and take over agricultural businesses.

The purpose of this study is to examine the main business–economic barriers to farm establishment and generational renewal among young farmers in Sweden. Particular focus is placed on how farmers perceive financial barriers and how these perceptions relate to the financial assessment criteria used by lenders and credit providers. The study combines interviews with young farmers and representatives from agricultural lending institutions with financial data from the Federation of Swedish Farmers (LRF).

The results show that access to capital is one of the greatest challenges facing young farmers. Many respondents described high land prices, increasing debt levels and difficulties obtaining sufficient financing as significant barriers to establishment. The findings also show clear differences between family succession and external establishment. Farmers taking over family farms often benefit from existing assets, equity and more flexible financing arrangements. In contrast, farmers attempting to establish themselves through market purchases frequently face substantially higher financial requirements and greater financial risk.

The study further demonstrates that lenders place strong emphasis on repayment capacity and long-term cash flow stability when evaluating loan applications. While profitability remains important, banks are primarily concerned with whether a business can generate sufficient cash flow to meet future loan repayments. The findings also suggest that the financial structure of agricultural business, including debt levels, equity positions, plays a central role in credit assessments.

Overall, the study highlights how financial conditions influence opportunities for young people to enter Swedish agriculture. The findings suggest that generational renewal is not only a question of motivation, skills, or interest in farming, but also a question of access to capital and financially sustainable establishment opportunities. The study contributes to a better understanding of how financial

trcutures, lending practices and capital requirements shape the future development of Swedish Agriculture.

Appendix 1

The questions sent out to the farmer respondents are presented below:

Interview Farmers

(Semi-structured interview, approx. 60 minutes)

Section 1: Background and Establishment Path

1. Could you describe your path into agriculture and how the establishment or succession process took place?
2. From an economic perspective, how did you experience the establishment or takeover process?
3. Were there particular stages of the process that felt more financially demanding than others?

Section 2: Financing and Capital Structure

4. How was the establishment or takeover financed?
5. How did you experience the requirements regarding own capital at the time?
6. Did you feel that the farm's profitability was reasonable given how much money was tied up in it, including both loans and your own equity?
7. Did the financing structure influence your early investment decisions?
8. Looking back, is there anything about the financial setup you would approach differently today?

Section 3: Cash Flow and Financial Stability

9. How would you describe the financial stability of the business during the first years?
10. Did you feel the business had sufficient margin to handle fluctuations in income or costs?

11. How did you think about the investment horizon when making financial decisions (e.g., long-term perspective vs. short-term return) 5-10 years?
12. To what extent did the bank focus on projected cash flow and repayment capacity in their assessment?

Section 4: Interaction with the Bank and Credit Assessment

13. How would you describe the dialogue with the bank during the financing process?
14. What aspects did you perceive the bank to focus on most in their evaluation? (e.g., collateral, financial history, business plan, experience)
15. Did the bank's assessment of risk correspond with your own view of the farm's potential? Mixes two things. Risk and potential. Maybe harmonize
16. Were there parts of the credit assessment process that felt unclear or difficult to interpret?

Section 5: Perceived Economic Barriers

17. In your view, what are the main economic challenges associated with establishing or taking over a farm today?
18. Was there any particular financial threshold or barrier that felt especially significant in your own case?
19. Do you believe that young or new entrants face different financial constraints compared to more established farmers? If so, in what way?

Section 6: Reflection and Overall Assessment

20. Looking back, do you think the main challenges were related to concrete conditions such as capital requirements and lending terms, or more to uncertainty about profitability and financial risk?
21. What do you think would most effectively improve economic conditions for new entrants or successors in agriculture?

22. Is there anything in the financing or credit assessment process that you believe could function differently?

Appendix 2

The questions sent out to the credit lender's respondents are presented below:

Ownership Transfer: New Owner of the Farm

Part 1: Background and Experience

1. Can you briefly describe your role and experience working with agricultural finance?
2. What does your work involve when it comes to credit assessment of agricultural businesses?
3. How common is it for you to work with cases involving farm establishment or generational succession (ownership transfers)?

Part 2: Financing and Capital Structure

4. What does a typical financing structure look like in farm establishment or generational succession cases?
5. What importance does equity capital have in your assessments, particularly for young farmers?
6. How do you view the relationship between invested capital and returns in agricultural businesses?
7. To what extent does the financing structure, for example debt levels, influence your risk assessment?
8. Are there common weaknesses in financing arrangements that you frequently encounter in these types of cases?

Part 3: Cash Flow and Financial Sustainability

9. How do you assess cash flow and repayment capacity in agricultural businesses?
10. Which financial indicators or key performance measures do you place the greatest emphasis on?
11. How do you manage uncertainty and income variability, for example related to price volatility or harvest outcomes?

12. How do you view long-term investment horizons in agriculture compared with other industries?

Part 4: Credit Assessment and Risk

13. What does your credit assessment process look like in practice when evaluating farm establishment or generational succession cases?
14. What factors carry the greatest weight in your assessment?
15. How do you assess risk in agriculture compared with other sectors?
16. Are there factors that are particularly difficult to assess or that create uncertainty in the credit evaluation process?

Part 5: Young Farmers and Farm Establishment

17. Do you perceive young or new farmers as having a different risk profile compared with established farmers?
18. What are the main challenges for young farmers from a financing perspective?
19. To what extent do factors such as limited credit history, lack of equity capital, or insufficient collateral influence your lending decisions?
20. Do you see differences between family succession and external establishment when assessing financing applications?

Part 6: Reflection and Overall Assessment

21. In your view, are the main barriers to financing primarily related to financial indicators, or to uncertainty regarding future profitability and risk?
22. What is required for a farm establishment or generational succession to be considered financially sustainable?
23. Is there anything in the credit assessment process, or in the interaction between lenders and farmers, that could be improved or function differently?

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