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# Biography: *Agricultural Finance Review*

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**Abstract**

**Purpose** – This paper aims to provide a "biography" of sorts on *Agricultural Finance Review*. The paper tracks the evolution of *Agricultural Finance Review* from its introduction in 1938 to its current status.
**Design/methodology/approach** – The paper is based on a complete review of every paper and every issue. Not all papers were read by the author, but key papers of interest that in one way or another made significant contributions to the study of agricultural finance were reviewed.
**Findings** – The paper shows the evolution of agricultural finance from the early days of reporting financial data in the 1930s and 1940s, to its emergence as a major and significant sub discipline of the general field of agricultural economics.
**Research limitations/implications** – As indicated, not all papers were fully reviewed or read. It is possible that papers identified as "firsts" may have been preceded by other papers. Nonetheless the paper identifies the basic evolutionary path of the journal and defines key points in time when a paradigm shift emerged to change the direction of this discipline.
**Practical implications** – As *Agricultural Finance Review* transitions from the Department of Applied Economics and Management at Cornell University to Emerald Group Publishing Limited, this "biography" provides readers with a general overview of the journal's and the discipline's historical development.
**Originality/value** – This paper is simply a review of the existing literature found in *Agricultural Finance Review*.

**Keywords** Serials, Agriculture, Finance, Farms, Risk management

**Paper type** Literature review

In May of 1938 the United States Department of Agriculture (USDA), Bureau of Agricultural Economics published the first issue of *Agricultural Finance Review*, describing it as "A semi-annual review of current developments and research in the field of Farm Credit, Farm Insurance, and Farm Taxation" (Figure 1). In the forward to this first issue the USDA wrote:

> Suggestions have been made, from time to time, indicating the need for a periodic review of developments in the field of agricultural finance.
>
> In an attempt to meet this need the Bureau of Agricultural Economics is initiating with this issue the publication of such a review to appear in May and November of each year.

The author would like to thank the many editors of *Agricultural Finance Review* preceding his tenure. Without their diligence there would be no field of study in agricultural finance. The author would also like to thank, with the greatest affection and appreciation that one can imagine, Faye Butts our Editorial Assistant at Cornell University, and Judy Harrelson, our former Technical Editor whose eye for detail, care and diligence ensured that every issue of *Agricultural Finance Review* was as clean and technically correct as possible. Contributors will no doubt miss her cheery e-mails and proofs. We wish her all the best in the future. As for this paper, it was a delight to rummage through each and every paper and issue in *Agricultural Finance Review*. Many references are provided and it is by no means exhaustive. Short of preparing a complete index of all papers ever published in the *Review*, it is impossible in a short missive to identify each and every major contribution. For those great contributions not identified in this paper we apologize to the authors. This paper was not peer reviewed. Any errors and omissions belong to the author.

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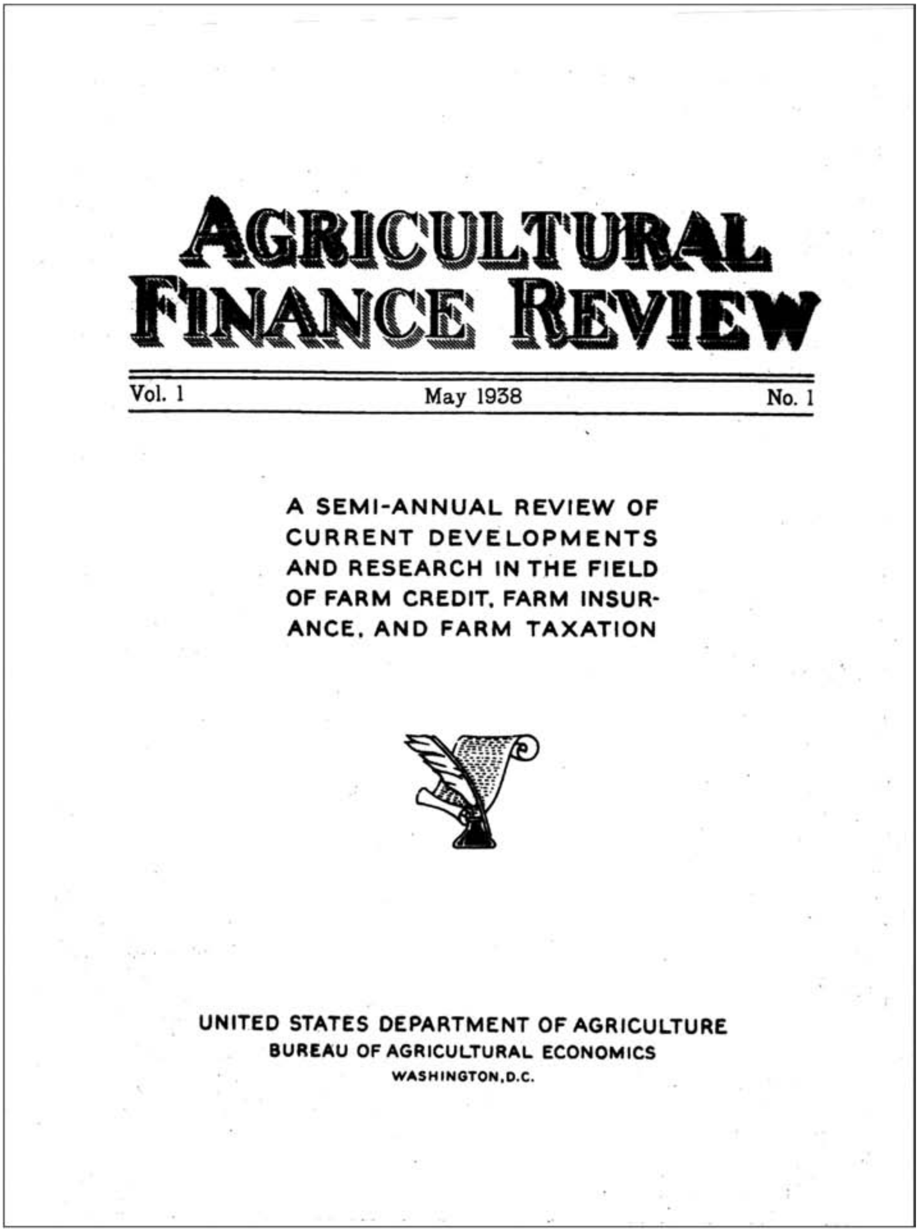

AGRICULTURAL FINANCE REVIEW

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A SEMI-ANNUAL REVIEW OF CURRENT DEVELOPMENTS AND RESEARCH IN THE FIELD OF FARM CREDIT, FARM INSURANCE, AND FARM TAXATION

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS
WASHINGTON, D.C.

**Figure 1.**
Cover of the first issue of *Agricultural Finance Review*, Vol. 1 No. 1, May 1938

Each issue, it is planned, will cover developments in farm credit, farm insurance, and farm taxation during the preceding 6 months, including research results, and reviews of significant reports, together with a bibliography of articles and publications of interest to those following developments in agricultural finance. It is intended also that the pages of the *Review* shall be open to contributions from workers in the field of agricultural finance in other Government bureaus and agencies.

> In presenting the initial number of *Agricultural Finance Review* it is our hope that suggestions for further improvement of this publication will be forthcoming from those interested in this field of activity.

Then as now the full and complete understanding of matters related to credit, insurance and taxation are of great importance. Sixty-eight years later, this 69th edition of *Agricultural Finance Review*, published here for the first time by Emerald Group Publishing Limited is the primary field journal in the world. Its evolution, the subject of this *biography*, documents the times so to speak, from the New Deal in the 1930s to the crises of the 1980s to the current turmoil in monetary and energy markets. In this journal we find the emergence of leading scholars in the field of agricultural finance, and the roots of new ideas that shaped and molded the farm economy.

Following this paper is a reprint of the lead article in the first issue of *Agricultural Finance Review* by Bureau economists Donald C. Horton and E.J. Engquist entitled "Farm-mortgage indebtedness shows further decline" (an article that was incidentally followed by one authored by Norman J. Wall with the title "Agricultural loans by commercial banks continue to increase"). Also in the first issues were articles on developments in mutual fire insurance, crop insurance for wheat, merchant credit problems, country banks, farm taxation, trends in interest rates, as well as reviews on the real estate operations of the federal land banks, land bank and commissioner loans, loan operations of the Commodity Credit Corporation, and the insuring of farm mortgages by the Federal Housing Administration.

Typical of early papers published in *Agricultural Finance Review* Horton and Engquist dryly recount statistics indicating the pulse of the farm economy and who is borrowing and who is lending. Analyses are kept to a minimum. On page 2 they state:

> Changes in the amount of farm mortgage indebtedness during 1935 and 1936 reflect largely two opposing forces: Liquidation of debt primarily through distress transfers, and increases in debt through greater activity in the volume of land transfers . . . .The volume of voluntary transfers of farms rose substantially during three years, and additional mortgage credit was required to finance these transfers at the rising levels of land values. A material factor contributing to the greater activity in land transfers was the increased volume of farms sold by lending agencies. The rise in land values and the general improvement in farm income also gave many farm owners additional borrowing power to finance expanding farm operations.

But from this one can feel the pulse of the times. The great upheaval in the agricultural economy from effects of the Great Depression, the restructuring of agricultural credit through the Farm Credit Administration, and the emergence from years of deflated commodity prices, perhaps through the policies of the Agricultural Adjustment Act (AAA). In a footnote they indicate that sales of farms through the federal land banks averaged 4,181 between 1930 and 1934 rising to 13,024 in 1936, the worst of the dust bowl years and drought that affected Texas, Oklahoma, Kansas, and Missouri.

Indeed the earliest issues of the *Review* give us a glimpse into the past, to examine and evaluate the start and evolution of policies which today are taken for granted. The first outlook paper on crop insurance for wheat by William H. Rowe (1938) describes the use of the AAA offices to collect applications, identifies the combined farm yield-area yield indemnity structure, the calculations of premiums, and describes the uptake of crop insurance by 200,000 farmers in 20 states. Jackson (1939) reminds us of the failure in early 20th century taxation policy on farmers and the adverse incentives that led to widespread delinquency and farm loss. Here he integrates the problems of tax policy and land use and argues that blanket taxation without consideration of land use pattern or capability is inadequate. Larsen (1939) among others illustrate how the system of farming in the first half of the last century was plagued with problems related to tenancy and sharecropping and describes the benefits of the tenant purchase program promulgated by the Bankhead-Jones Farm Tenant Act. We can read about the financing of electricity in rural areas (Rose, 1939) and early versions of livestock insurance (Griffen, 1940). A paper by Andal (1955) describes one of the first area yield insurance programs applied to field grains in Canada's Prairie Provinces.

By 1940 with World War II playing out in Europe and Asia the *Review* increasingly focused its writing to matters of defense and the relationship between defense spending and agriculture (e.g. Jackson, 1940; Garlock, 1941). In fact as a response to the war *Agricultural Finance Review* went to a one issue per year periodical for the duration of the war, but it was not until 2001 that *Agricultural Finance Review* appeared again as a two issue per year volume.

The first paper dealing with farm mortgage risk appeared in Kinsman (1940). There he describes perhaps the first credit scoring model for farm loans. He writes:

> One such method would be the development of a risk rating system that could be used to evaluate each of the major loan-risk factors and to obtain a summary rating in which each factor would be weighted according to its relative importance (page 34).

The "weighting" of course was difficult in 1940 and it took more than 35 years until Dunn and Frey (1976) and then Lufburrow *et al.* (1984) developed the first statistical credit scoring models. The standard lecture we give today on the five Cs of credit were outlined in a paper by Stebbins (1941).

By 1947 a series of papers by Barber started to examine the relationship between farm production risks and farm credit. Barber (1947) is one of the earliest writings to relate weather-induced production risks to land values, and in Barber and Horton (1948) he outlined methods, without use of sophisticated mathematics, to measure and compare risks and suggests detailed analytical techniques including, as a foreshadowing of later methods:

> potentialities for dealing with risks . . . could be tested against time series models for different types and sizes of farms (page 39).

In a periodical dominated by men, the first paper authored by a female (Betty Case) was in 1958 (Bierman and Case). Other changes were afoot. *Agricultural Finance Review* was then a very non-technical journal that shied away from any type of mathematical formula. The first formula published in *Agricultural Finance Review* was a mundane calculation for the determination of the minimum terms of a contract needed to avoid capital gains tax (Stocker, 1959). It was:

$$\text{Years} = \frac{\text{Amount of capital gain}}{2 * (2{,}675 - \text{other income})}.$$

The first presentation of mathematical notation and regression came in a paper by William McD. Herr in 1967 where he defined the function $D = f(I, E)$ to examine non real estate debt ($D$) internal funds ($I$) and cash expenditures ($E$). Herr's paper was also the first paper published in *Agricultural Finance Review* to use multiple regressions to evaluate statistical hypotheses.

Between 1938 and 1963, with few exceptions, manuscripts published in *Agricultural Finance Review* were penned by USDA economists. It was not until 1964 that academics began to infiltrate the pages of the journal. The first "academic" to publish in *Agricultural Finance Review* was Rogers (1964), an assistant professor in the department of economics at Rockhurst College who wrote on Soviet insurance. In that same issue John Brake, then at Michigan State University published "Some thoughts on Research Needs in Farm Capital and Credit" which incidentally called for a more theoretical approach to problems in risk and finance, a call that was welcomed by the emerging scholars of agricultural finance at America's major research universities.

The real transition in *Agricultural Finance Review* took place in 1969 with papers penned by George D. Irwin, David A. Lins, and John B. Penson all of whom would end up on university faculties to lead the charge towards a modernized approach to the study of agricultural finance. Lins (1969) for example provided one of the first glimpses into using linear programming and other mathematical optimization models for problems in farm finance and management including single period, recursive and multiperiod linear programs. Although Lins presented the case for using linear programming without the use of mathematics, the era of avoiding complex mathematics appeared to have ended with a paper by Bostwick (1969) on the effects of machinery control strategies on income.

Meanwhile the scope of the journal was expanding. In 1972 Heifner published the first paper examining the use of hedging strategies in relation to farm credit; Hopkin (1972) examined the impact of the conglomerate merger on agriculture while the impacts of international monetary policy on agriculture was examined by Regier (1972), and Scofield (1972) evaluated the use of non-farm equity capital in agriculture. The *Review* also began to publish papers dealing with credit in development (Adams and Tommy, 1974; Ames, 1976; Nehman and Adams, 1976).

In 1974 the USDA stopped publishing *Agricultural Finance Review* and the editorship under Edward Reinsel (1969-1973) of the USDA was transferred to John B. Penson at Purdue University and Thomas Carlin of the USDA. In 1976 Penson brought on David A Lins and W. Fred Woods as editors and from 1977 to 1982 Lins, at the University of Illinois, took over the editorship working with Philip T. Allen, Dean Hughes and Stephen Gabriel. It was during these years that the journal became recognizably a source of publication for agricultural finance research. New techniques emerging from access to powerful main frame computers began to appear with Baker (1979) looking at projections of financial performance over time, Thompson and Hanson (1980) simulating maximum feasible debt loads, Nixon and Richardson (1982) using farm level income and policy simulation model (FLIPSIM) to examine farm policy. Also during this period was a transformation of how researchers should view agricultural finance and a move to tie into the discipline concepts from the broader literature of finance. Barry and Baker (1977) for example provided an integrated look at farm financial structure and risk using modern portfolio theory and the separation theorem which was followed up by a more general consideration by Barry and Robison (1987). This era saw the rise of Peter J. Barry to not only the far-away leader in the study of agricultural finance, but as the references to this biography attests, he with his colleagues and graduate students at the University of Illinois, became the most prolific contributor to this journal.

Starting with Volume 43 in 1983 the editorship of *Agricultural Finance Review* went to John Brake at Cornell University, where the journal editorship has remained. Eddy LaDue joined as coeditor in 1992 and became sole editor with Volume 58 in 1998. LaDue remained as editor until his retirement in 2005 when the editorship was taken over by Calum G. Turvey.

By the time the editorship moved to Cornell University whatever aversion the *Review* had towards theory and mathematically derived solutions had largely dissipated and it became a central outlet for published work under a formal peer reviewed program. For example in Volume 46 alone Jones and Barry (1986) published a complex stochastic multiperiod model to examine capitalization rates. Moss *et al.* (1987) published a multi-period mean-variance model to look at diversification of agricultural assets and Harris *et al.* (1986) published an autoregressive integrated moving average (ARIMA) forecasting model for loan volume.

Also by 1987 a crisis was looming in US agriculture and papers measuring financial stress in agriculture began to appear. Examples include Penson (1987), Lins *et al.* (1987), Ellinger and Barry (1987) as well as an entire special issue dedicated to the farm crisis that emerged from an American Agricultural Economics Association Symposium in November 1986. The financial crisis brought agricultural finance into greater focus and greater emphasis was placed on credit access (Ellinger *et al.*, 1990; Lins and Robison, 1989; Gustafson *et al.*, 1991a), risk management (Featherstone *et al.*, 1990; Gwinn *et al.*, 1992; Boehlje and Lins, 1998), crop insurance (Pederson, 1991; Buzby *et al.*, 1994; Glauber and Collins, 2002; Turvey *et al.*, 2002; Mason *et al.*, 2003), and credit risk and credit scoring (Turvey and Brown, 1990; Turvey, 1991; Gustafson *et al.*, 1991b; Duncan and Singer, 1992; Miller *et al.*, 1993; Splett *et al.*, 1994).

In 1995, Volume 55, saw the first partitioning of articles into teaching and extension sections. Since then the journal has accepted articles that contribute to classroom lectures and outreach. For example Schroeder *et al.* (1995) published a paper on using experiebtial techniques to teach commodity trading strategies and Brake (1995) published an extension piece on Cornell's FarmNet farm assistance project.

Also during this period the discipline started exploring numerous approaches to modeling decision making process and risk. Featherstone *et al.* (1990) presented dynamic stochastic models using discrete sequential stochastic programming, Kastens *et al.* (1995) introduced neural networks, Ziari *et al.* (1995) evaluated the use of mathematical programming to solve credit scoring problems. The journal was also adapting to general shifts in economic paradigms. In 1998 Collins and Hanf prepared a paper outlining the flaws of conventional capital budgeting techniques and introduced the notion of real options to the agricultural finance literature with applications by Hyde *et al.* (2003) to follow. Newer ideas in credit "migration" were also introduced by Barry *et al.* (2002) and then Phillips and Katchova (2004), Escalante *et al.* (2004) and Gloy *et al.* (2005). The journal also responded to emerging ideas in the use of derivatives with a paper on "bug" options by Richards *et al.* (2006) and weather options (Turvey, 2005; Odening *et al.*, 2007). Also by 2004, *Agricultural Finance Review* contributors were beginning to respond to the changing nature of credit risk as defined by the Basel Accord (Zech and Pederson, 2004; Walraven and Barry, 2004).

With *Agricultural Finance Review* expanding it scope and submissions, it returned in 2001 to a two issue per year periodical. In 2005 a commemorative issue was published on *Agricultural Finance Research: Past, Present and Future* with Bruce Sherrick, University of Illinois as Guest Editor. The special issue reviewed a range of topics including farm financial structure, farmland valuation, risk management, tax policy, farm credit programs, credit risk assessment, and developments in portfolio management. Another special in the Fall of 2006 focused on Microfinance and microcredit in developing countries. Again in 2008 a special issue with the first ever foreign guest editors, Martin Odening (Humboldt University) and Ernst Berg (University of Bonn), surveyed developments in weather risk management and weather insurance. Also starting in 2006 *Agricultural Finance Review* started publishing biographies of individuals that have played a significant role in the development of agricultural finance including W.I. Myers (Spring 2006), Muhammad Yunus (Fall 2006), John Kenneth Galbraith (Spring 2007) and J.D. Black (Fall 2007). This biography of *Agricultural Finance Review* is a part of this series.

With this current issue *Agricultural Finance Review* is evolving yet again. Most prominent is that publication now leaves Cornell after 25 years to the professionals at Emerald Group Publishing Limited. The future holds an expansion of content from a predominantly US base to an international base, and the scope will increase to welcome innovative articles and reviews of credit systems throughout the world including microfinance, microcredit, rural financing in developing countries and so on. Research articles on credit and credit issues will continue unabated. A broader definition of risk will include innovations in credit design, options, futures and market risks. As *Agricultural Finance Review* expands so too will its exposure as more and more libraries throughout the world provide access through Emerald Group Publishing Limited's channels.



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