

This PDF is a selection from an out-of-print volume from the National Bureau of Economic Research

Volume Title: Risk Elements in Consumer Instalment Financing

Volume Author/Editor: David Durand

Volume Publisher: NBER

Volume ISBN: 0-870-14124-4

Volume URL: <http://www.nber.org/books/dura41-1>

Publication Date: 1941

Chapter Title: Front matter, acknowledgments, table of contents

Chapter Author: David Durand

Chapter URL: <http://www.nber.org/chapters/c9260>

Chapter pages in book: (p. -12 - 0)

Risk Elements in Consumer Instalment Financing

BY DAVID DURAND

Financial Research Program
Studies in Consumer Instalment Financing

8

NATIONAL BUREAU OF ECONOMIC RESEARCH

COPYRIGHT, 1941, BY NATIONAL BUREAU OF ECONOMIC RESEARCH, INC.
1819 BROADWAY, NEW YORK, N. Y. ALL RIGHTS RESERVED

PRINTED IN THE UNITED STATES OF AMERICA BY
THE HADDON CRAFTSMEN, INC., CAMDEN, N. J.

Preface

THIS study presents an analysis of certain factors which are relevant to the selection of credit risks and the determination of credit standards in the field of consumer instalment financing. It constitutes one phase of the investigation in this field, initiated in 1938 by the National Bureau of Economic Research and supported by special grants from the Association of Reserve City Bankers and the Rockefeller Foundation. A study of consumer instalment financing was originally recommended by the National Bureau's Exploratory Committee on Financial Research in its report submitted in 1937, and the broad purposes of such a study were set forth as follows:

"Instalment financing of consumer purchasers withstood the strain of the depression so well and showed such relatively small losses throughout the crisis as compared with many other types of credit instrument that banks and other financial agencies, pushed to find outlets for surplus funds, are now expanding rapidly in this field. This expansion, moreover, is assuming a competitive form, with respect not only to interest rates and other financial charges, but also to the down payment, the term of loan, the security, and the amount extended in relation to the income of the borrower. As a result, pressure is being brought to bear to relax the strictness of the procedures that tended to safeguard instalment financing during the depression. The Committee feels that, in view of its potentialities, this situation deserves careful analysis. At present, it is impossible to decide with any

confidence whether these modifications of procedure are justified or whether they constitute introduction of credit standards which are far too lax and which may have serious repercussions. In the present state of knowledge, such judgments cannot be based on data drawn from broad experience; they must be largely expressions of opinion. It is essential, the Committee holds, that an effort be made to gather all the available data on this type of financing for the purpose of identifying those credit standards which are sound and have stood the test of experience."

In the five institutional studies previously prepared and published under the consumer instalment financing project—dealing with personal finance companies, sales finance companies, industrial banking companies, consumer financing departments of commercial banks, and government agencies of consumer instalment credit—we presented separate analyses of credit experience in the several areas represented by these agencies. The present study brings together the findings of the individual studies, and makes an integrated analysis of risk factors in the entire field of consumer financing.

The raw materials for this study consisted of about 7,200 reports on loans actually made by 37 firms engaged in consumer instalment financing. These firms included 21 personal loan departments of commercial banks, 2 personal finance companies, 10 industrial banking companies, 3 automobile finance agencies and 1 appliance finance company. Although the basic data were supplied by a variety of firms in different areas, certain tendencies appeared consistently in most of the samples supplied.

Highly refined statistical methods were employed in this study, in order to assure precise results as well as to test the applicability of such methods to the problems involved. But since many companies may not find feasible the use of elaborate statistical methods, we have limited the discussion in the main text to procedures which are simpler, easier, and

less expensive, and which any company can apply to its own records in order to test its risk experience. The technical discussion of statistical theory and methods has been confined to three appendices. Since these appendices will be of interest chiefly to statisticians with specialized mathematical training, the study has been published in two editions, and the appendices have been eliminated from one of them. This is the general edition, without appendices.

We welcome the opportunity to express indebtedness to the following firms, which cooperated, at considerable expense to themselves, in furnishing data or other assistance for this study:

Bank of the Manhattan Company
The City National Bank and Trust Company, Columbus, Ohio
The City National Bank and Trust Company, Kansas City, Missouri
Corn Exchange National Bank and Trust Company, Philadelphia
The Equitable Trust Company, Baltimore
The First National Bank of Boston
The First National Bank of Kansas City, Missouri
The First National Bank and Trust Company in Macon, Georgia
First National Bank and Trust Company of Minneapolis
First Wisconsin National Bank of Milwaukee
The Fourth National Bank, Columbus, Georgia
The Liberty National Bank and Trust Company of Savannah
Manufacturers Trust Company, New York
Midland National Bank and Trust Company, Minneapolis
National Bank of Tulsa
The National City Bank of New York

The National Exchange Bank of Augusta, Georgia
The Pennsylvania Company for Insurances on Lives and
Granting Annuities, Philadelphia
Security-First National Bank of Los Angeles
Springfield National Bank, Springfield, Massachusetts
Trust Company of Georgia, Atlanta

Associates Investment Company, South Bend, Indiana
General Motors Acceptance Corporation, New York,
New York
The National Shawmut Bank of Boston
Reserve Discount Company, St. Louis, Missouri

American Investment Company of Illinois, St. Louis,
Missouri
Beneficial Industrial Loan Corporation, Newark, New
Jersey
Household Finance Corporation, Chicago, Illinois

Citizens Savings and Loan Corporation, Chattanooga,
Tennessee
The Community Consumer Discount Company, War-
ren, Pennsylvania
Community Savings and Loan Company, Parkersburg,
West Virginia

Indianapolis Morris Plan, Indianapolis, Indiana
The Morris Plan Bank of Virginia, Richmond
The Morris Plan Industrial Bank of New York
Peoria Finance and Thrift Company, Peoria, Illinois
Progressive Company, Incorporated, New Orleans,
Louisiana

Royal Industrial Bank, Louisville, Kentucky
Thrift, Incorporated, Des Moines, Iowa
Thrift, Incorporated, Evansville, Indiana

The collection and analysis of the data presented many difficult technical problems, and much experimental statistical work was required to determine the most appropriate treatment of the material. Mr. Durand, who has been in charge of the analysis from its beginning, has resolved these problems with great skill, patience, and resourcefulness.

By pointing the way to a recurrent statistical testing of credit experience by institutions engaged in consumer instalment financing, Mr. Durand has made a unique contribution to credit practices in the field, and we hope that the completion of this study will stimulate further investigation into the problem of such credit standards. In modern interest theory, much emphasis is placed on credit risk as a factor affecting the gross charge to the borrower, but little attention is given to the elements that comprise or affect risk. By identifying and indicating the role of some of these elements in the field of consumer instalment credit, Mr. Durand's study affords an empirical basis for the elaboration of the risk problem in this single sphere of interest theory.

RALPH A. YOUNG

Director, Financial Research Program

April 1941

Author's Acknowledgments

I WISH to express sincere appreciation to those who have contributed data for this study and to those who have given valuable assistance in its organization and development. I am particularly indebted to James W. Angell, Columbia University; Milan V. Ayres, American Finance Conference; Wilfred Helms, Household Finance Corporation; Ross I. Hewitt, General Motors Acceptance Corporation; Harold Hotelling, Columbia University; Frederick C. Mills, Columbia University; M. R. Neifeld, Beneficial Industrial Loan Corporation; L. M. Robitshek, American Investment Company of Illinois; and Theodore Yntema, University of Chicago.

I am also most grateful to the members of the financial research staff of the National Bureau of Economic Research who assisted in the planning and execution of the study; to R. J. Saulnier, John M. Chapman, Sidney S. Alexander, and Carl Kaysen, for suggestions and advice; to Dorothy Wescott, who edited the manuscript; to Aileen Barry, Catherine Conolly, and Mary Deeley, for assistance in tabulation.

Finally, I wish to extend thanks to Dr. R. A. Young, Director, and Dr. Winfield W. Riefler, Chairman, of the Financial Research Program, who have been a constant source of assistance and inspiration.

DAVID DURAND,
Financial Research Staff
(*National Bureau of Economic Research*)

Contents

PREFACE	ix
AUTHOR'S ACKNOWLEDGMENTS	xv
LIST OF TABLES	xix
SUMMARY OF FINDINGS	1
1. SCOPE AND PURPOSE OF THE STUDY	(9-21)
Characteristics of Consumer Instalment Credit	10
Risk Selection	14
Nature of Problem	19
2. HOW RISKS CAN BE STUDIED	(22-43)
Illustrative Analysis	23
Index of Bad-Loan Experience	27
The Efficiency Index	28
Selection of Samples	31
Random Sampling Technique	32
Size of Sample Required	34
Consolidation and Consistency of Individual Samples	37
Summary of Procedure	41
3. FINDINGS OF RISK FACTOR STUDIES	(44-82)
Financial Factors	45
<i>Income</i>	45
<i>Amount of Loan</i>	48

<i>Length of Loan Contract</i>	53
<i>Security of Loan</i>	56
<i>Cash Price</i>	57
<i>Down Payment</i>	59
<i>Borrower Assets and Liabilities</i>	62
<i>Non-Financial Factors</i>	65
<i>Stability of Occupation</i>	65
<i>Stability of Residence</i>	67
<i>Occupation and Industry</i>	69
<i>Personal Characteristics</i>	74
<i>Purpose of Loan</i>	77
<i>Summary</i>	77
4. CREDIT-RATING FORMULAE	(83-91)
Specific Formulae	85
Evaluation of Formulae	90
5. APPRAISAL OF RESULTS	(92-101)
Revision of Credit Policy	93
Study of Costs	94
Value of Credit Analysis	99
INDEX	102

Tables

1. Index of Relative Importance Attached to Various Credit Factors Other Than Income by 126 Commercial Banks	17
2. Index of Relative Importance Attached to Various Credit Factors by 688 Retail Establishments	18
3. The Relation Between Bad-Loan Experience and Stability of Occupation, as Shown by the Good-Loan and Bad-Loan Samples Submitted by One Commercial Bank	26
4. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Income of Borrower	46-47
5. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Amount of Loan	49
6. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Length of Loan Contract	54
7. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Cash Price of Article Purchased	58
8. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Amount of Down Payment	60
9. Percentage Distribution of Repossessed and Non-Repossessed New-Car Samples, by Amount of Down Payment in Percent of Cash Selling Price	61
10. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Selected Asset Items of Borrower	61
11. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Duration of Borrower's Present Employment	66
12. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Duration of Residence at Borrower's Present Address	68
13. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Occupation of Borrower	70-71
14. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Marital Status and Sex of Borrower	75
15. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Age of Borrower	76

- | | |
|---|----|
| 16. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Intended Use of Funds | 78 |
| 17. Efficiency Indices for the More Important Credit Factors, by Five Types of Financing Institutions | 80 |
| 18. Percentage Distribution of Good-Loan and Bad-Loan Samples, by Two Credit-Rating Formulae | 87 |

FINANCIAL RESEARCH PROGRAM OF THE
NATIONAL BUREAU OF ECONOMIC RESEARCH

Studies in Consumer Instalment Financing:
Number Eight