Credit Analysis and Commercial Lending and Commercial Lending and Commercial Lending

信贷分析与公司贷款

International Finance Corporation Private Enterprise Partnership for China 国际金融公司中国项目开发中心



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**韦文 (James Weaver)** 1980年 获美国约翰霍普金斯大学硕士学 位, 拥有18年的商业银行工作经 验,是一位资深的金融风险管理 咨询专家。在信贷领域有深入的 研究和丰富的实践经验。历任美 国纽约Aqua Terra环境服务有限公 司项目总监、美国纽约国民西敏 寺银行公共金融集团副总裁、美 国纽约大通曼哈顿银行市政金融 部副总裁、荷兰国际银行越南河 内分行公司业务部总经理等职 务。在此期间,还为公共和私营 企业提供了各种金融咨询服务, 包括风险管理咨询和信贷培训。 从1996年开始,专职从事信贷风 险培训和咨询, 为十几个国家的 金融当局和机构提供帮助。此 外。在亚洲和非洲的发展中国家 也有10余年的工作经验, 主要从 事银行、民营企业发展以及咨询 和培训等方面的工作。

# of the book was noticed by the Shanghai International Banking and Finance Institute (DROWAROF

This book originates from the demands of our bank advisory clients in China. Most are lending institutions with a relatively short history of five to ten years. Their staff members involved in lending, risk management, and loan audit functions require intensive training covering the full spectrum of corporate borrower analysis from a practitioner's perspective.

Indeed, sound credit analysis is the foundation of portfolio quality for all lending institutions. The capacity of staff involved in the credit process to evaluate borrowers in order to determine whether or not credit should be given, how much should be given, and under what terms and conditions, should be a core competence of every bank. In China, the banking industry has grown rapidly in recent years. Although asset quality and service standards have generally improved, capacity building of banking institutions remains a challenge given the long history of state-directed lending.

The Private Enterprise Partnership for China (PEP-China) is the advisory arm of the International Finance Corporation (IFC) in China. IFC is the private sector arm of the World Bank Group. Previously known as the China Project Development Facility (CPDF), IFC PEP-China was set up in 2001 to support the sustainable development of the private sector in the country, especially the development of small and medium-sized enterprises (SMEs) in the interior provinces. One of the missions of IFC PEP-China is to improve private enterprise access to finance, in particular SMEs. Over the past five years we have supported financial sector policy reforms, assisted the development of financial infrastructure, and helped to strengthen the capacity of Chinese financial institutions. About 10,000 bankers and other professionals have attended various training-related activities organized or supported by IFC PEP-China. Credit Analysis and Commercial Lending is a product of these activities. We hope that it will contribute to the further strengthening of skills among Chinese banking professionals.

IFC PEP-China is committed to introduce international best practice in banking. This book provides step-by-step and hands-on explanations for the analysis of corporate borrowers and the granting of corporate loans. It is intended to provide a systematic approach to the teaching of credit analysis and lending principles. Thus, the book begins with an overview of credit process, and then presents the building blocks of credit analysis and lending, i. e. target markets, risk acceptance criteria, industry risk analysis, business risk analysis, financial statement analysis, cash flow projections, credit limits, loan structuring, documentation, and monitoring. Essential best practice elements have been incorporated into the discussions as much as possible.

This book is the result of a four-year project led by Jinchang Lai who conceived and contributed considerable intellectual input for the book. The author is James Weaver who drafted practically the entire book. Team members include Wei Lei, Violaine Cousin, Wanjie Chen, and Zhu Zeng. Rong Chen, Hui Liu, Ye Sun, and Wenfang Chen also participated in the initiative at various stages of the project. Without their collective and tenacious efforts, a book of such volume could not have been completed. Our special thanks go to James Weaver, whose diligence and depth of knowledge have enabled him to work patiently with us for several years to produce this comprehensive text.

The project has also benefited from the support and advice of many people within and outside the IFC, including Karin Finkelston, William Haworth, Eric Siew, Jiansheng Wang, Yang Li, Xilong Pan (Southwestern University of Finance and Economics), Yutian Chang (University of International Business and Economics), and Rui Wang (Foreign Languages Press). In particular, a review meeting on an early

draft of the book was hosted by the Shanghai International Banking and Finance Institute (SIBFI) in October 2004. Joao Lucas Duchene, William Haworth, Robert James Simms, Horst Loechel, Xiaoju Zhao, Mai Nguyen, Terry Wyer, Yang Li and Marge Karner attended the meeting and provided valuable guidance to the project team in completing the book.

In the past four years, various drafts of the book have been used in more than 15 bank training workshops in China. We are grateful to the workshop participants and the sponsoring Chinese financial institutions for their helpful comments. These training activities and the book project itself were financed by IFC PEP-China's core funding and a special grant by the Dutch Government through World Bank/IFC's SME Department. We are grateful to the Governments of the United Kingdom and Australia which are core donors to PEP-China; to the Government of Switzerland as a core donor to the previous CPDF; and to the Government of the Netherlands. Their generous funding has made the preparation and publication of this book possible.

Finally, we hope that the book will prove to be a useful learning tool for bankers, regulators, academics, investors, analysts, banking-related service providers and all students of banking.

Mario Fischel
General Manager, Private Enterprise Partnership for China
International Finance Corporation
World Bank Group
April 2007

#### **ACKNOWLEDGMENTS**

The development of this book required and includes the contributions of a large and diverse team, all of whom have been noted in the Foreword. The author shares this gratitude to all the contributors, and would like to express his particular appreciation of several key team members.

Leading the effort was Mr. Jinchang Lai, IFC PEP-China, who initiated and managed the project, contributed key ideas and material, and whose knowledge, experience, and talent underlies the book's qualities. Mr. Mario Fischel, IFC PEP-China General Manager, provided our entire team the full and sustained support necessary to complete this project. Mr. Lei Wei, IFC PEP-China, ably and reliably provided help, advice, and input.

Numerous IFC reviewers contributed technical help and significant improvements. The author is grateful to Mr. William Haworth and Mr. Joao Lucas Duchene for detailed input which has been reflected throughout the book. Valuable suggestions were also provided by the other reviewers mentioned in the Foreword.

The author is grateful to Ms. Violain Cousin, who wrote "Family Businesses" (Appendix 2), to Ms. Rong Chen who wrote "Environmental, Health, and Safety Risks" (Appendix 3), and to Mr. John Newcomb of Standard and Poor's Corporation in New York for providing historical default statistics.

Ms. Wanjie Chen, IFC PEP-China, helped in various ways throughout the editing process.

The author finally wishes to acknowledge the support from his wife Suyan and daughter Anne, whose patience and devotion were essential to the completion of the book.

While ideas and input from contributors constitute important elements of the book, the author retains sole responsibility for any errors.

James Weaver Paris, November 2, 2006

#### **PREFACE**

#### Purpose and Content

This book was written to provide a training and technical resource for commercial banks in developing economies. The objective is to impart a foundation of appropriate, practical knowledge and technical skills that is sufficiently deep and thorough to improve working methods, and thus strengthen lending processes and bank performance. The book is intended to be a "toolbox" from which practical framework approaches and analytical methods can be selected as needed.

This book covers general corporate lending, including lending to SMEs. Retail lending to consumers and very small businesses, and other kinds of lending businesses, are not included within its scope. The contents provide the analytical tools and methodologies required to make sound corporate lending decisions. The subject matter and material were selected to provide a thorough understanding of underlying concepts and to illustrate key points with examples.

While this material will be of interest to any commercial banker involved in the business origination and risk management processes, it is specifically intended to provide essential knowledge and skills to (i) "loan officers", called "relationship managers" or "marketing officers" in some banks, (ii) branch and department managers involved in the credit process, (iii) Credit Department staff, called "credit control" or "credit risk control" in some banks, and (iv) managers and staff in Credit Audit functions who have responsibility for independently reviewing the credit risk management and the loan portfolios of each business origination unit.

The approaches to several major subjects in credit evaluation are organized around "frameworks" designed to help bankers structure and focus their analysis and decision-making. The frameworks are intended to provide help and guidance, not to limit or restrain thinking. They should be considered and applied with flexibility in a practical context.

The methodologies include several Excel-based analytical spreadsheet tools, for which electronic files are available by internet download from www.cpdf.org. However, not all bankers in developing economies have access to computers for daily work. The methodologies supported by the spreadsheet tools are thus designed in such a way that they can also be applied using calculators.

This book employs analytical approaches and tools that require a basic understanding of accrual accounting principles and financial statements. Readers who do not have this understanding are strongly advised to acquire training and a working knowledge of basic accrual accounting principles in order to improve their banking skills and to fully understand and benefit from this book.

IFC PEP-China and the author welcome all reader comments, suggestions, and corrections to this book. We would be grateful for reader input, which can be sent to www. cpdf. org.

#### Structure

The book's subject matter progresses through the entire lending process.

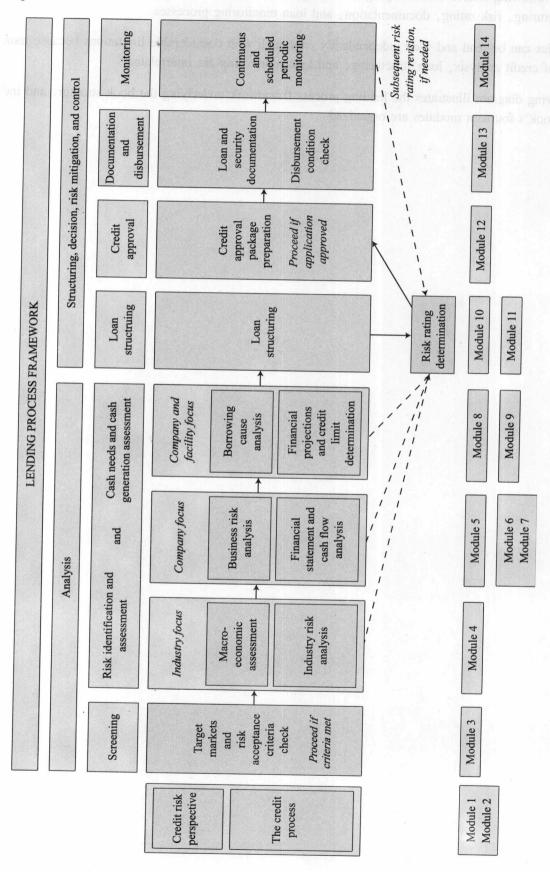
- The first two modules provide:
  - · Perspective on risk-taking, and
  - An overview of the credit decision process.

• The following twelve modules progress through the borrower screening, credit analysis, loan structuring, risk rating, documentation, and loan monitoring processes.

The modules can be read and used independently, although with considerable limitations because most elements of credit analysis, loan structuring, and loan monitoring are interrelated.

The following diagram illustrates the lending process framework underlying the book structure and indicates how the book's fourteen modules are organized.

Figure P. 1



#### **ABBREVIATIONS**

AE Accrued Expenses
AP Accounts Payable

AP DOH Accounts Payable Days on Hand

AR Accounts Receivable

AR DOH Accounts Receivable Days on Hand

b. p. Basis Point(s)

BIS Bank for International Settlements

BS Balance Sheet

CAA Credit Approval Application
CADA Cash after Debt Amortization
CAP Credit Approval Package
Cap Ex Capital Expenditures
CCGS Cash Cost of Goods Sold
CD Certificate of Deposit
CGS Cost of Goods Sold

CPLTD Current Portion Long-Term Debt

CSG&A Cash Sales, General, and Administrative Expenses

Dep. and Amort. Exp Depreciation and Amortization Expense

DOH Days on Hand

DSC Debt Service Coverage

EBIT Earnings Before Interest and Taxes

EBITDA Earnings Before Interest, Taxes, Depreciation and Amortization Expense

EA Environmental Assessment

EHS Environment, Health, and Safety
EIA Environmental Impact Assessment

FIFO First In First Out

G&A General and Administration Expense IFC International Finance Corporation

IFRS International Financial Reporting Standards

INV Inventory

INV DOH Inventory Days on Hand

IS Income Statement LIFO Last In First Out

LP / HP Low Point / High Point

LTD Long-Term Debt
LT Debt Long-Term Debt
MKT. Market or Marketable
NCAO Net Cash After Operations
NPAT Net Profit After Tax

NPAT Net Profit After Tax
NPBT Net Profit Before Tax

OCFW Operating Cash Flow Worksheet

Op. Exp. Operating Expenses

p. a. Per Annum

#### Credit Analysis and Commercial Lending

PP CPLTD Prior Period Current Portion Long-Term Debt

RAC Risk Acceptance Criteria

ROA Return on Assets
ROE Return on Equity
RD Rick Poting

RR Risk Rating SEC. Securities

S&L Savings and Loan (US)

S&P Standard and Poor's Corporation

SG&A Sales, General, and Administrative Expenses

SGR Sustainable Growth Rate

SME Small / Medium-Sized Enterprise

SOE State-Owned Enterprise

STD Short-Term Debt
ST Debt Short-Term Debt
US United States
WC Working Capital

WI Working Investment

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