

Doctor of Social Sciences honoris causa
Professor Merton H. MILLER
Citation

To students of corporate finance, M & M are not chocolate beads they munch in between meals. The initials stand for the well-known MM theorems, proposed by Franco Modigliani and Merton H. MILLER. The theorems exposed the irrelevance of financial structure in the valuation of firms. Professor Merton H. Miller, whom we honour today, first formulated the basic model for the MM theorems in 1958 with his colleague Modigliani at Carnegie. Since then, the two Ms have both become Nobel laureates in economics, Modigliani in 1985 and Miller in 1990.

Professor Miller, born in Boston, Massachusetts, followed in his father's footsteps, entering Harvard University in 1940 and graduating with an AB *magna cum laude*. Unlike his father, who was an attorney, Merton Miller's main interest was in economics. One of his contemporaries at Harvard was Robert M. Solow, the Nobel laureate in economics for 1987. The Second World War interrupted Miller's studies. During the war years, he served as an economist, first in the Division of Tax Research of the US Treasury Department and subsequently in the Division of Research and Statistics of the Board of Governors of the Federal Reserve System. In 1949, Miller decided to return to graduate school and chose Johns Hopkins University to pursue his studies. He received his doctorate in 1952.

After a brief visiting appointment at the London School of Economics, he went to the Carnegie Institute of Technology (now Carnegie Mellon University), whose Graduate School of Industrial Administration was the first and most influential of the new wave of research-oriented US business schools. Among his colleagues at Carnegie were Herbert Simon (economics laureate for 1978) and Franco Modigliani. The first M & M paper, entitled "The Cost of Capital, Corporation Finance and the Theory of Investment", emerged in 1958 and was followed by two other important papers in 1963 and 1966. Three years after the publication of the first seminal M & M paper, Miller left Carnegie for the Graduate School of Business at the University of Chicago, where he has been ever since, except for a one-year visiting professorship at the University of Louvain in Belgium from 1966 to 1967. Using their basic model in the M & M papers, Miller and Modigliani derived two so-called invariance theorems, now known as the 'MM Theorems'.

榮譽社會科學博士
Merton H. MILLER 教授
之讚辭

一般人看到“M&M”，可能便會聯想起五彩繽紛的巧克力豆，但修讀企業財務學的同儕便知道這個縮寫是指著名的MM定理。這些定理是由Franco Modigliani和Merton H. Miller兩位學者提出，它們顯示公司的定價與它的財務結構無關。今天我們要嘉許的便是發明這些著名定理的兩位學者之一——Merton H. Miller教授。在1958年，Miller教授與Modigliani同在美國卡內基技術學院任教，他們一起探索這些定理的基本模型。兩位學者先後獲頒諾貝爾經濟學獎：Modigliani在1985年獲獎，Miller教授則在1990年。

Miller教授生於美國麻省波士頓市。他在1940年追隨父親當年的步伐，進入哈佛大學，並取得傑出文學士學位。但他不喜歡從事父親的行業——律師，他的最大興趣是經濟學；他當年的同窗包括1987年諾貝爾經濟學獎得主Robert M. Solow。在第二次世界大戰期間，Miller教授被迫停止學業。他先後在美國財政部的稅務分析處和聯邦儲備體系理事會的研究及統計處擔任經濟學家。在1949年，Miller教授決定重返校園，繼續進修研究生課程，並選擇到約翰斯·霍普金斯大學深造。他在1952年取得博士學位。

在倫敦經濟學院工作了一段短時間後，他到卡內基技術學院(卡內基梅倫大學的前身)任教，該學院的工業行政研究院是美國第一所研究型商學院，對推動日後相繼成立的研究型商學院深具影響力。他在卡內基的同事包括1978年諾貝爾經濟學獎得主Herbert Simon和Franco Modigliani。第一篇有關M&M定理的論文是在1958年發表，題為“資本成本、企業財務與投資理論”，接著在1963和1966年，他們又發表了兩篇重要的論文。在發表了上述的第一篇論文後三年，Miller教授離開卡內基，轉到芝加哥大學商學研究院任教，除了在1966-67年

Both of the invariance theorems were originally derived from highly simplified assumptions. Subsequent research has to a large extent dealt with the consequences of various deviations from the conditions on which the MM theorems were based. At Chicago, this research continued from the 1960s into the 1980s, with Professor Miller as its leading figure. Miller thus showed how the design of different tax structures affects the relation between a company's capital asset structure and market value, after taking into account the indirect market effects of taxes through equilibrium price formation on financial markets. Similarly, he analyzed the importance of bankruptcy costs for the relation between a firm's financial asset structure and dividend policy on the one hand and its stock-market value on the other.

Perhaps a highly simplified way of summing up the MM theorems for the layman is to say that "if the asset structure and dividend policy affects a firm's market value, then this reflects the consequences of taxes or other explicitly identified market imperfections". The MM theorems have therefore become the natural basis or norm of comparison for theoretical and empirical analysis in corporate finance. Professor Merton Miller is the researcher who has dominated this analysis for two decades from the 1960s to the 1980s. He has thus made a unique contribution to modern theory of corporate finance.

In the early 1980s, Professor Miller became a public director of the Chicago Board of Trade. Since then, his research interests have shifted strongly towards the economic and regulatory problems of the financial services industry, and especially of the securities and options exchanges, a topic that is highly relevant to Hong Kong, particularly in these days of economic uncertainty. Professor Miller currently serves as a public director of the Chicago Mercantile Exchange, where he had served earlier as chairman of its special academic panel to conduct the post-mortem on the market crash of October 19-20, 1987. He is the Robert R. McCormick Distinguished Service Professor Emeritus of Finance at the Graduate School of Business of the University of Chicago, a school that boasts eight Nobel laureates in economics. He continues to be an active supporter of free-market solutions to economic problems, very much in the tradition of his fellow Chicago laureates, Milton Friedman (1976), Theodore Schultz (1979) and George Stigler (1982).

Professor Miller has received honorary doctorates from the University of Louvain (Belgium) and the University of Karlsruhe (Germany). He was elected fellow of the Econometric Society in 1975, became president of the American

關，他到比利時魯汶大學擔任一年客座教授外，他一直留在芝加哥大學商學研究院。Miller教授和Modigliani教授根據他們構思的基本模型，推演出兩條定理，稱為不變定理，也就是“MM定理”。

兩條不變定理都是從非常簡單的假設推演出來，往後的研究大都著眼於當MM定理所依據的情況變動後，會有什麼後果。在芝加哥，Miller教授從1960年代開始，一直到1980年代，仍積極從事有關的研究。他的研究顯示了不同的稅務架構，怎樣在稅項通過金融市場形成平衡價位的間接市場效應下，影響一家公司的資本性資產結構與其市值的關係。他也就破產成本對一家公司的金融資產結構分別與派息政策和股市定價之間的關係進行分析，探討其重要性。

如果要向普羅大眾概括地解釋MM定理，最簡單的說法是：“如果一家公司的資產結構和派息政策會影響它的市值，則可以反映這是稅項或其他明顯的市場缺憾所造成的結果”。因此在企業財務學中，MM定理便是對理論分析和實驗分析進行比較時的基礎和準則。從1960年代到1980年代這二十年間，Miller教授一直是這類分析研究的主要學者，因而對企業財務學的現代理論作出獨特的貢獻。

在1980年代初期，Miller教授出任芝加哥交易所的公職董事。自此以後，他的研究領域便轉而專注於金融服務業(尤其是證券和期權交易)的經濟和監管問題，這個研究課題與香港息息相關(尤其是在現今經濟不明朗的日子)。Miller教授現在是芝加哥商業交易所的公職董事，在1987年10月19至20日的股災後，他曾任該交易所特別學術小組主席，對那次股災進行事後檢討。Miller教授現時是芝加哥大學商學研究院財務學Robert R. McCormick傑出服務榮休教授，該學院已出了八位諾貝爾經濟學獎得主。他與另外幾位芝加哥大學諾貝爾經濟學獎得主Milton Friedman (1976)、Theodore Schultz (1979)及George Stigler (1982)一樣，仍繼續積極支持以自由市場方式解決經濟問題。

Finance Association in 1976, fellow of the American Academy of Arts and Sciences in 1989, and distinguished fellow of the American Economic Association in 1990. He is co-editor of *The Journal of Business*. His book *Financial Innovation and Market Volatility*, published by Basil Blackwell in 1991, is a timely work for those concerned with the volatile Asian market today.

The untimely death in 1969 of his first wife, Eleanor, the mother of his three young daughters, was a heavy personal blow to Professor Miller. He has since remarried. Together with his wife Katherine, he divides his time between a Hyde Park townhouse during the week, and a country retreat on a working farm in Woodstock, Illinois, on the weekends. Professor Miller is a fervent supporter of the infamous Chicago Bears as much as he is of the free-market economy. He has been a season-ticket holder for 17 years now, taking his seat in the south endzone of frigid Soldier Field whenever he can.

Mr Chancellor, I have the honour to present, on behalf of the University, Professor Merton H. Miller, Robert R. McCormick Distinguished Service Professor Emeritus of Finance, and Nobel Laureate in Economics, for the degree of Doctor of Social Sciences *honoris causa*.

Miller 教授先後獲魯汶大學(比利時)和 Karlsruhe 大學(德國)頒授榮譽博士學位；在 1975 年，他獲選為經濟計量學會院士；1976 年他擔任美國財務學會會長；1989 年成為美國文理科學院院士；1990 年成為美國經濟學會傑出院士。他是《商學期刊》的編輯之一，他的著作《金融創新與市場波動》在 1991 年由 Basil Blackwell 出版，對關心現時亞洲市場的人來說，這是一本合時的書籍。

他和第一任妻子 Eleanor 結婚後生了三名女兒。她在 1969 年猝逝，這對 Miller 教授來說是一次沉重的打擊。他後來與 Katherine 結婚，他們週日住在芝加哥 Hyde Park 的一座府邸，到了週末便會到伊利洛州胡士托的一個農場裡享受田園生活。Miller 教授是臭名遠播的 Chicago Bears 美式足球隊的球迷，其狂熱程度與他對自由經濟的支持不遑多讓，他已經連續 17 年買了該隊球賽的季票，並且盡可能要坐在寒冷的 Soldier Field 球場南端尾段的位置。

監督先生，本人謹恭請閣下，頒授榮譽社會科學博士學位予芝加哥大學商學研究院財務學 Robert R. McCormick 傑出服務榮休教授及諾貝爾經濟學獎得主 Merton H. Miller 教授。