

【計量財金所甲組】

一、問答題：72%

1. 請解釋資本資產定價模型 (Capital Asset Pricing Model, CAPM) 與市場模型 (Market Model) 的差異？
2. 請解釋資本市場線 (Capital Market Line)、證券市場線 (Security Market Line) 與特徵線 (Characteristic Line) 的差異？
3. 比較現金股利 (Cash Dividend) 與股票買回 (Repurchase) 的異同？
4. 比較股票股利 (Stock Dividend) 與股票分割 (Stock Split) 的異同？
5. 存續期間 (Duration) 與 Delta 避險的 Delta 二者的異同？
6. 內部報酬率 (Internal Rate of Return, IRR) 與到期殖利率 (Yield to Maturity, YTM) 的異同？
7. 股票要求報酬率 (Required Return) 與股權資本成本 (Cost of Equity Capital) 的異同？
8. 本益比是甚麼？本益比倒數所代表的意義？本益比倒數與權益報酬率 (return on equity, ROE) 的差異？
9. 杜邦方程式 (DuPont Identity) 指的是甚麼？
10. 甚麼情況下，債券可以平價 (Issue at Par) 發行？浮動利率債券應該折、平或溢價發行？
11. 現金股利愈高，公司股票價格會愈高或愈低？為什麼？
12. 買賣權平價定理 (Put-Call Parity) 指的是甚麼？它有甚麼用途？

二、分析題：12%

根據以下 ABC 科技公司 103 年第一季損益表，分析此公司的經營策略？就一家科技公司而言，此種經營策略好不好？為什麼？

ABC 科技公司損益表	單位百萬
期別	103.10
營業收入淨額	215,870
營業成本	207,127
營業毛利	8,743
營業費用	5,854
營業利益	2,889
利息收入	2,375
投資收入/股利收入	8
處分投資利得	51
金融資產評價利益	68
兌換盈益	1,223
其他收入	251
營業外收入合計	3,975
利息支出	713
本期稅後淨利	4,675
每股盈餘（元）	1.21

三、閱讀心得：16%

根據以下文章撰寫摘要與心得。

Amazon's new concept convenience store doesn't just save money, it saves shoppers' time. That, however, is part of what makes the rise of the robots unstoppable, one expert said.

At a time when a growing number of observers have lamented the potential impact of growing automation on flesh and bone workers, the retail giant introduced something that may be a game-changer. On Monday, Amazon announced a new Seattle location, Amazon Go, that has no registers.

Instead, shoppers scan into the store with their free Amazon Go app, shop as normal, and leave the store with the items billed to their Amazon.com account.

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“With Amazon, it’s not just about reducing labor costs at all - they’ve come up with something disruptive,” Martin Ford told CNBC’s “Power Lunch” this week. “I don’t think there is anyone that doesn’t hate standing in line at a retail store, and they’ve figured out a way to basically get rid of those lines,” he said. “So this is something that is not just about eliminating jobs, it’s going to create enormous advantages for consumers. So it’s an inevitable process.”

It’s unclear exactly how ambitious Amazon’s expansion plans are for Amazon Go, but it faced immediate backlash as “the end of jobs.”

“I don’t think we can stop it,” said Ford, the author of “Rise of the Robots: Technology and the Threat of a Jobless Future.” “It’s a part of capitalism, that there’s going to be this continuous drive for more efficiency.”

Ford pointed out that retail salespersons and cashiers were among the occupations with highest employment in the U.S., according to Bureau of Labor statistics data from earlier this year.

“Manufacturing - good, solid, middle class jobs - are disappearing, and what we’re seeing is lots of job creation in the low-wage service sector,” Ford said. These include fast food, retail, hospitality and so forth. But those jobs are not going to be around forever,”

President elect Donald Trump has sought to address burgeoning discontent among displaced workers by striking deals to keep more jobs from being outsourced overseas. When asked keeping jobs in the U.S. will cause them to be replaced by robots, Trump said “they will, and we’ll make the robots too,” according to The New York Times.

Researchers at IDC predict that by 2019, the government will begin implementing robotics-specific regulations to preserve jobs.

“I think what it leads to is more job destruction, and less job creation, especially for average typical people that don’t necessarily have PhDs from MIT and all of that,” Ford said.

To be sure, self-checkout has been around for years, even as cashiers and retail salespersons have seen high employment rates, Roger McNamee, co-founder of

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technology investment firm Elevation Partners, pointed out to CNBC on Monday.

These workers are often a “positive part” of the retail experience, McNamee added.

But the technology that powers Amazon Go, like the computer vision and artificial intelligence used by self-driving cars, is different that what’s come before it, said Ford.

“It’s true that technology always creates and destroys jobs, and historically, of course, it’s created more jobs,” Ford said.

“But I do think we’re getting to the point - with the advent of real artificial intelligence, machine learning, and so forth - [where] these technologies are beginning to think. They’re taking on cognitive capability. That’s different. It’s going to have a much more dramatic impact,” he added.

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一、問答題

1. 見講義書內容
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7. Required Return—

$$R_i = R_f + (R_m - R_f) \times \beta_i$$

Cost of Equity Capital—

$$R_i = \frac{D_1}{P_0} + g$$

8. 本益比 = $\frac{\text{每股市價}}{\text{每股盈餘}}$ ，意涵為公司每賺一元，股東願意花多少錢投資！

本益比的倒數 = $\frac{\text{每股盈餘}}{\text{每股市價}}$ ，即以市價來衡量的股東投資報酬率，而

ROE = $\frac{\text{稅後淨利}}{\text{平均股東權益}}$ ，為以股東原始投資額來計算的股東報酬率，即前者

是以目前市價計算股東報酬率，而後者是以歷史成本（中長面價值）計算股東報酬率！

9. 見講義書內容

10. (1) 票面利率 = 市場利率 (YTM)

(2) 平價

11. 見講義書內容

12. 見講義書內容

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十七名校財務管理

二、分析題

$$\text{純益率} : \frac{4675}{215870} = 0.02166$$

$$\text{營業淨利率} : \frac{2889}{215890} = 0.01338$$

$$\text{營業外收入比率} : \frac{3975}{215870} = 0.01841$$

這家公司的經營策略不好，因為這家公司的純益率有很大的比重來自於營業外收入，所以現在這家公司獲利能力看起來即使很好，卻不會長久，故其應專注於本業。