

系所名稱	類別	科目	節次	准考證號碼 (考生請填入)	考試 日期
工程管理研究所	碩士 在職專班	案例分析與論文討論	第一節		98/5/3

※答案須寫在答案卷內，否則不予計分。

註：(1) 請在答案卷依題次順序作答，(2) 不可使用翻譯機、字典，(3) 除專有名詞及特別註明之題目外，請以中文作答。

一、案例分析(50%，每題10%)

1.個案介紹

我國高爾夫球頭之製造，最早是由環球金屬公司從蘇格蘭引進技術開始生產鐵桿頭。由於產品精良、價格低廉，加上業者多年努力研發技術、開發新產品，逐漸使我國成為世界的高爾夫球頭製造中心。

高爾夫球頭產業技術方面，高爾夫球頭大致可以分成三類，金屬木桿頭、鐵桿頭及推桿。在金屬木桿頭方面，使用的材料有不銹鋼、鋁合金、鈦合金及複合材料等。目前在國內仍以不銹鋼材質利用脫蠟精密鑄造法成型的為最多，年產約720萬個，平均價格約在台幣250-380元之間。在高爾夫球頭的造型上以尺寸在180cc以下的為多數。鋁合金的木桿球頭主要的市場定位是低價產品，大多採重力壓鑄成型，由於鋁合金的比重較輕，故球頭的尺寸可達200-250 cc。鈦合金木桿球頭主要是進口大陸或美國的毛胚，在國內進行研磨拋光，由於其質量較鋁為高，強度及打擊時的聲音與感覺較鋁合金佳，故目前市場的需求量正快速地成長。複合材料木桿球頭則由於受到複合材料的纖維含量限制，承受高速衝擊負荷時有脫層問題及磨耗的現象，在國內的生產量已漸減少。

在鐵桿球頭方面，仍是以不銹鋼材質，採用脫蠟精密鑄造方式來製造。不銹鋼材質基本上是與金屬木桿頭所用者類似，近年來已有廠商開發鈦合金之球頭。至於推桿頭使用的材料則有不銹鋼、鋅合金、錳青銅及鈹銅等材料，造型上因受國外廠商的要求而有相當大的變化，製造方式仍以脫蠟精密鑄造為主。

在鋁合金材質球頭目前每年約有65萬個的產量，價格為460-550元/個之間，預計未來將逐漸被鈦合金材料的球頭所取代。使用鈦合金材料製造的球頭，為目前最為流行的產品。鈦合金材料（鈦合金毛胚）由中國大陸及美國進口為最多，全鈦的金屬木桿頭約有10萬個/年的產量，單價3000元/個，較其他材料的球頭高出甚多。

高爾夫球頭未來之發展趨勢，在金屬木桿頭方面，材料仍以不銹鋼為主流，鈦合金、高級鋁合金及長纖維複合材料由於高比強度、比剛性之特性，使球頭具更廣的設計空

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間，未來極具發展潛力。在造型上，金屬木桿頭的設計是朝向大型化(oversize)發展，其主要原因是如此的設計可擴大球頭在打擊面。現今產業的目標，在不銹鋼材料希望能有200-230cc.的設計；鈦合金、鋁合金則希望有230-280cc.的設計；長纖維複合材料則以300cc.為目標。在製造方式上，脫蠟精密鑄造的發展趨勢是如何使製程更自動化，以節省人工。至於鈦合金的製造方式則必須以真空鑄造不可，由於鈦合金在材料及生產設備上均甚為昂貴，如何提昇業者之熔煉及鑄造技術是一重要的發展方向。

在鐵桿球頭方面，材料之使用仍以不銹鋼材料為最佳選擇，在造型上亦是朝向大型化設計。為了大型化，材料的分佈是相當重要的，目前的設計趨勢是使材料儘量分佈置四周以擴大打擊面及球頭的轉矩。在推桿頭方面，造型上仍無一標準，在設計時應注意造型美，在功能上要注意重心之設計，其意義即是如何維持推桿頭與桿子配合時，打擊面不至於旋轉。在製造上以精密鑄造為主，但是最近有朝直接使用CNC加工球頭，以維持設計重心之位置及保持球頭的均勻性。在材料上，不銹鋼仍為主流。

從上述說明，可以看出來，高爾夫球頭是屬於一種高度設計及材料變化快速的產品，製造商必須以優異的設計與快速的新產品開發能力，才能創造市場的競爭優勢。因此國外知名的廠牌無不投資大量經費從事球頭的設計開發，並且發展電腦輔助球頭設計技術、高速衝擊分析技術與揮桿模擬技術等，以競逐市場的領導者地位。雖然我國業界的專長主要在於高超的生產製造能力，但因應高爾夫球產品生命週期日漸短縮的趨勢，未來將勢必需要強化產品設計能力與發展生產自動化，以加速新產品上市的速度。

## 2.面臨之挑戰

臺灣雖然是高爾夫球具用品的生產王國，但隨著環境變遷，傳統成本低廉的生產優勢已逐漸喪失。由其他運動器材產業(如羽球用具、網球用具、運動鞋等)的大量外移經驗，以及近年來大陸高爾夫用品出口大幅上升的事實，可以預見高爾夫球頭產業未來將面臨及嚴峻的挑戰。

高爾夫球具用品主要的消費市場是在美日等已開發國家，雖然生產功能二十餘年前已移轉至臺灣等開發中國家，但品牌、通路、與產品設計技術，仍然為先進國家所掌控。因為高爾夫運動人口尚屬於特定市場區隔，而高爾夫球具設計需要具備一定的專業條件，所以設計功能幾乎成為價值鏈中的關鍵因素。必須掌握設計功能，才有能力建立品牌與發展通路，而設計、品牌、通路三者正是這一產業的主要附加價值來源。

下表為台灣高爾夫產業的SWOT分析。由表中可看出，因為環境變遷的影響，過去

系所名稱	類別	科目	節次	准考證號碼 (考生請填入)	考試 日期
工程管理研究所	碩 士 在職專班	案例分析與論文討論	第一節		98/5/3

台灣的製造優勢將逐漸喪失，而受到大陸與東南亞地區的替代威脅。另一方面，因為自動化生產技術的發展與使用，也使得美日等先進國家可以快速彈性的進行小批量的生產，來滿足產品多樣化與短生命週期的市場趨勢。在兩面夾擊之下，台灣高爾夫產業必須要在未來幾年內積極尋求轉型，改變經營策略，來面對市場的挑戰。

表一：台灣高爾夫產業的SWOT分析

<p><b>優 勢</b> 製造能力強、彈性大、品質優、周邊配合完整、交貨期準、市場資訊靈活、產品模仿能力強</p>	<p><b>劣 勢</b> 欠缺專業設計人才、研發能力不足、無品牌、無通路、無國際行銷經驗、本土市場小、影響力與球員知名度不足</p>
<p><b>機 會</b> 亞太營運中心計畫、國際投資與策略聯盟、大量的高級人才、垂直整合、多角化、與產業升級</p>	<p><b>威 脅</b> 大陸與東南亞的強力競爭、人工成本高漲、兩岸關係不穩定、產業外移、自動化生產技術的替代性</p>

面對金融海嘯席捲全世界與全球化市場競爭趨勢，未來台灣高爾夫產業的業者將需要就以下轉型或升級的策略做出抉擇：

1. 公司如何因應全球金融海嘯而導致無訂單生產的窘境？
2. 是否進行多角化投資，分散風險？
3. 能否強化設計開發能力，升級為ODM廠商？
4. 是否建立自主品牌？
5. 是否轉型成國際行銷公司，建立產品通路？

## 二、論文討論(50%，每題10%)

請閱讀底下文章(編修自維基百科)，並回答下列問題：

1. 請為此文分別訂定中文和英文的題目。
2. 請以中文200字左右撰寫本文的摘要。
3. 請根據本文的內容，說明四類financial crisis為何。
4. 請以中文200字左右，為本文撰寫最後一段的文章。
5. 針對本文的議題，發表您個人對financial crisis的看法。

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工程管理研究所	碩士 在職專班	案例分析與論文討論	第一節		98/5/3

The term financial crisis is applied broadly to a variety of situations in which some financial institutions or assets suddenly lose a large part of their value. In the 19th and early 20th centuries, many financial crises were associated with banking panics, and many recessions coincided with these panics. Other situations that are often called financial crises include stock market crashes and the bursting of other financial bubbles, currency crises, and sovereign defaults.

Many economists have offered theories about how financial crises develop and how they could be prevented. There is little consensus, however, and financial crises are still a regular occurrence around the world.

In general, financial crises can be categorized into:

#### 1. Banking crises

When a bank suffers a sudden rush of withdrawals by depositors, this is called a bank run. Since banks lend out most of the cash they receive in deposits, it is difficult for them to quickly pay back all deposits if these are suddenly demanded, so a run may leave the bank in bankruptcy, causing many depositors to lose their savings unless they are covered by deposit insurance. A situation in which bank runs are widespread is called a systemic banking crisis or just a banking panic. A situation without widespread bank runs, but in which banks are reluctant to lend, because they worry that they have insufficient funds available, is often called a credit crunch.

Examples of bank funds include the run on the Bank of the United States in 1931 and the run on Northern Rock in 2007. The collapse of Bear Stearns in 2008 has also sometimes been called a bank run, even though Bear Stearns was an investment bank rather than a commercial bank. The U.S. savings and loan crisis of the 1980s led to a credit crunch which is seen as a major factor in the U.S. recession of 1990-91.

#### 2. Speculative bubbles and crashes

Economists say that a financial asset (stock, for example) exhibits a bubble when its price exceeds the present value of the future income (such as interest or dividends that would be received by owning it to maturity). If most market participants buy the asset primarily in hopes of selling it later at a higher price, instead of buying it for the income it will generate,

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工程管理研究所	碩 士 在職專班	案例分析與論文討論	第一節		98/5/3

this could be evidence that a bubble is present. If there is a bubble, there is also a risk of a crash in asset prices: market participants will go on buying only as long as they expect others to buy, and when many decide to sell the price will fall. However, it is difficult to tell in practice whether an asset's price actually equals its fundamental value, so it is hard to detect bubbles reliably. Some economists insist that bubbles never or almost never occur.

Well-known examples of bubbles (or purported bubbles) and crashes in stock prices and other asset prices include the Dutch tulip mania, the Wall Street Crash of 1929, the Japanese property bubble of the 1980s, the crash of the dot-com bubble in 2000-2001, and the now-deflating United States housing bubble.

### 3. International financial crises

When a country that maintains a fixed exchange rate is suddenly forced to devalue its currency because of a speculative attack, this is called a currency crisis or balance of payments crisis. When a country fails to pay back its sovereign debt, this is called a sovereign default. While devaluation and default could both be voluntary decisions of the government, they are often perceived to be the involuntary results of a change in investor sentiment that leads to a sudden stop in capital inflows or a sudden increase in capital flight.

Several currencies that formed part of the European Exchange Rate Mechanism suffered crises in 1992-93 and were forced to devalue or withdraw from the mechanism. Another round of currency crises took place in Asia in 1997-98. Many Latin American countries defaulted on their debt in the early 1980s. The 1998 Russian financial crisis resulted in a devaluation of the ruble and default on Russian government bonds.

### 4. Wider economic crises

Negative GDP growth lasting two or more quarters is called a recession. An especially prolonged recession may be called a depression, while a long period of slow but not necessarily negative growth is sometimes called economic stagnation. Since these phenomena affect much more than the financial system, they are not usually considered financial crises per se. But some economists have argued that many recessions have been caused in large part by financial crises. One important example is the Great Depression, which was preceded in many countries by bank runs and stock market crashes. The subprime mortgage crisis and the bursting of other real estate bubbles around the world are widely expected to lead to recession in the U.S. and a number of other countries in 2008.

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系所名稱	類別	科目	節次	准考證號碼 (考生請填入)	考試 日期
工程管理研究所	碩 士 在職專班	案例分析與論文討論	第一節		98/5/3

Nonetheless, some economists argue that financial crises are caused by recessions instead of the other way around. Also, even if a financial crisis is the initial shock that sets off a recession, other factors may be more important in prolonging the recession. In particular, Milton Friedman and Anna Schwartz argued that the initial economic decline associated with the crash of 1929 and the bank panics of the 1930s would not have turned into a prolonged depression if it had not been reinforced by monetary policy mistakes on the part of the Federal Reserve, and Ben Bernanke has acknowledged that he agrees.