

參、洛桑國際管理學院

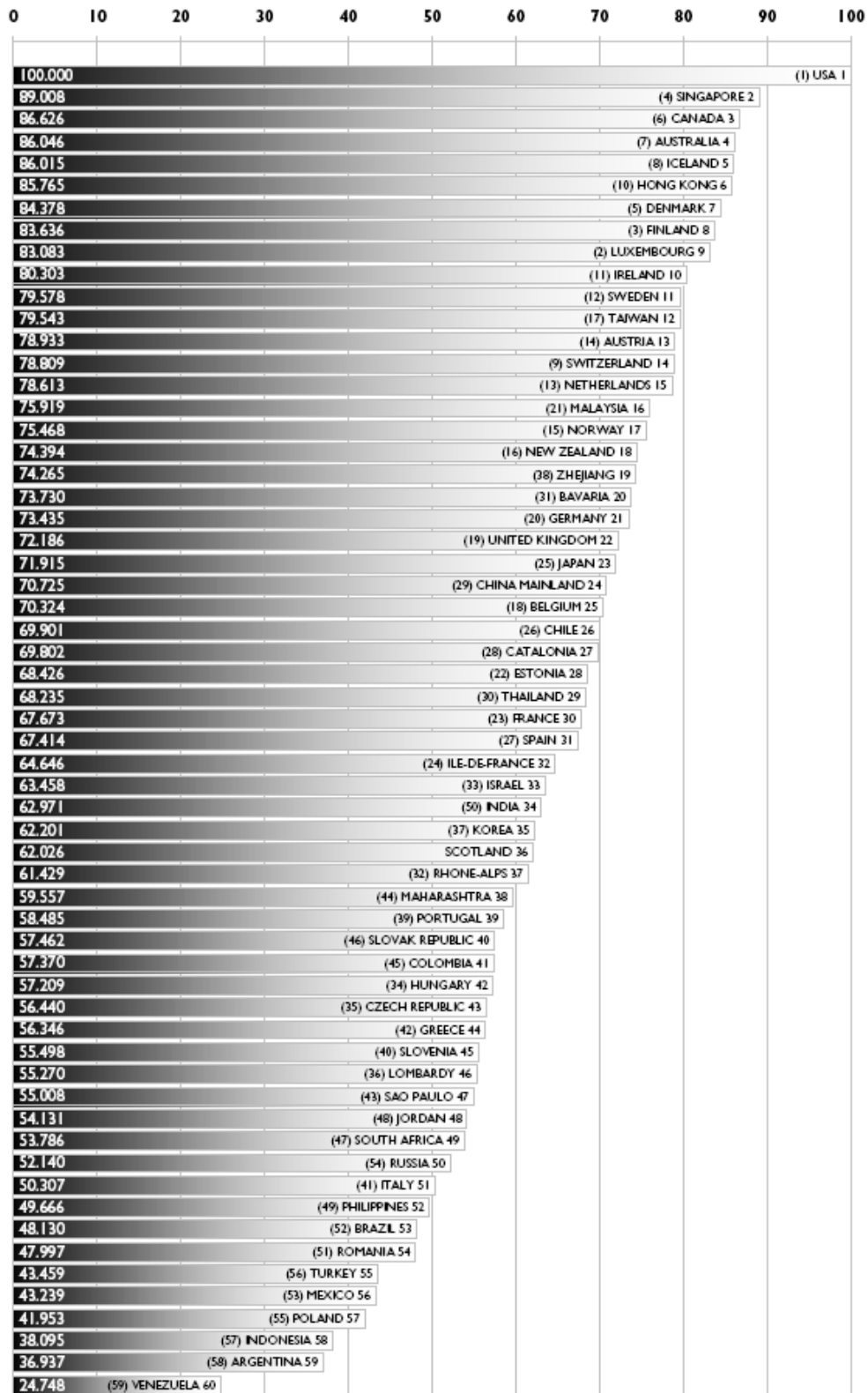
2004 年 9 月 2 日上午，專程由日內瓦轉往洛桑(Lausanne)拜會國際管理學院(International Institute for Management Development, IMD)。國際管理學院為一個獨立非營利機構，成立 50 多年來，主要在訓練國際公司的管理人才。

《世界競爭力年報》(World Competitiveness Yearbook, WCY) (IMD, 2004)是每年最早出版的報告，在春季五月時出版。國際管理學院每年寄送約 3000 本《世界競爭力年報》給全世界各個企業、政府及學術團體。一般而言，其寄送對象是足以影響及塑造世界競爭力的最高決策人員。

洛桑國際管理學院自 1989 年開始每年出版《世界競爭力年報》，是世界上有關國家競爭力最著名及最具廣博性的年度報告，此年報根據一個國家的環境如何創造及維持企業競爭力，加以評等及分析。這份報告涵蓋 60 個國家及地區性經濟，使用 323 個評估標準，組合在四個競爭力因素之中，對國家競爭力提供多面向的觀點。調查資料取材自高級主管意見調查(回復件數達 4,166)，整合的資料超過 5 年，最重要的是：這份年報強調客觀具體的數據，統計資料總數達到 700 餘頁，並與全世界 57 個伙伴機構合作，儘可能確保資料可信度及保持最新。

在《世界競爭力年報》中「整體評分表」(Overall Scoreboard)顯示一個經濟體相對於其他經濟體的競爭力評比位置，但並不是在不同時間點的比較。這表示，一個經濟體的評比從今年到明年呈現下降現象時，不必然代表這個經濟體變得較差，而是其他經濟體在同一時段裡進步的速度較快。這種下降可能也是在今年分析時加入新的國家或地區，而且這些新加入分析的國家或地區排名在前面所造成的結果。以 2004 年為例，我國在整體評分表中，排名第 12，由原來的第 17 名前進 5 名。

圖 3-1 是 2004 年的世界競爭力評比結果：



註：括號內為 2003 年評比排名

圖 3-1 2004 年世界競爭力評比表(World Competitiveness Scoreboard)

《世界競爭力年報》備受各界重視，企業界使用《世界競爭力年報》評估國家環境——在一個開放而且全球化的世界中，地點的選擇對企業非常的重要；企業使用《世界競爭力年報》來決定投資計畫及對投資地點進行評估。政府使用《世界競爭力年報》標示其政策的成功，並比較其他國家如何表現。學術界使用《世界競爭力年報》來瞭解及分析各國如何在世界市場上競爭。

2004 年世界競爭力年報提供其他幾種根據顧客需求量身訂作的排名，包括全球性的、按人口規模、按國家財力、按地區等等。例如，在全球性的排名中，美國是第一名，新加坡第二，芬蘭第八，瑞士第十四，荷蘭第十五，德國第二十一，英國第二十二，日本第二十三，中國第二十四，智利第二十六，法國第三十，韓國第三十五，南非第四十九，俄羅斯第五十，義大利第五十一，巴西第五十三，墨西哥第五十六，委內瑞拉第六十。另一方面，排名進步最多的是浙江地區第十九名，巴伐利亞第二十名，印度第三十四名，馬哈拉斯特(Maharashtra)第三十八名。

表3-1 2004年世界競爭力排名(The 2004 World Competitiveness Rankings)

A.前十名(總數 60)			
2004 年分數	國家/地區	2004 年排名	2003 年排名
100.0	美國	1	1
89.0	新加坡	2	4
86.6	加拿大	3	6
86.0	澳洲	4	7
86.0	冰島	5	8
85.8	香港	6	10
84.4	丹麥	7	5
83.6	芬蘭	8	3
83.1	盧森堡	9	2
80.3	愛爾蘭	10	11

B.進步最多者(全球)			
變化程度	國家/地區	2004 年排名	2003 年排名
+ 19	浙江	19	38
+ 16	印度	34	50
+ 11	巴伐利亞	20	31
+ 6	馬哈拉斯特	38	44
+ 6	斯洛伐克共和國	40	46
+ 5	台灣	12	17
+ 5	馬來西亞	16	21
+ 5	中國大陸	24	29
+ 4	香港	6	10
+ 4	俄羅斯	50	54

C.人口超過二千萬者			
2004 年分數	國家/地區	2004 年排名	2003 年排名
100.0	美國	1	1
86.6	加拿大	2	2
86.0	澳洲	3	3
79.5	台灣	4	4
75.9	馬來西亞	5	7
74.3	浙江(中國)	6	14
73.4	德國	7	6
72.2	英國	8	5
71.9	日本	9	9
70.7	中國大陸	10	11

D.人口少於二千萬者			
2004 年分數	國家/地區	2004 年排名	2003 年排名
89.0	新加坡	1	3
86.0	冰島	2	5
85.8	香港	3	7
84.4	丹麥	4	4
83.6	芬蘭	5	2
83.1	盧森堡	6	1
80.3	愛爾蘭	7	8
79.6	瑞典	8	9
78.9	奧地利	9	11
78.8	瑞士	10	6

一、競爭力的研究假設

各國競爭，是因為世界市場已經開放。今天，在世界貿易組織(WTO)會員之間的貨品關稅已低於 4%。此外，OECD 自創立以來即促進發展資本、貨品及服務的自由移動，首先從工業化國家開始，接著就推展到全世界。最後，自由貿易區如 NAFTA，及區域整合組織如歐盟，也強化了這項發展。科技與全球化加速了融合成一個世界的趨勢，這個世界不僅開放，而且公開透明、快速。企業現在已經在選擇公司地點上享受到擁有許多選擇的利益。結果，各國有必要在許多不同領域提昇他們本身的競爭優勢。例如，競爭力過去曾只關注透過輸出及外國直接投資所展現進取世界市場的能力；現在，競爭力同時強調發展出吸引國外及國內企業提供能產出經濟財富之活動的能力。

世上沒有競爭力的單一處方。許多政策可以列為標竿，每個國家則必須根據其自身環境調整這些政策。當競爭策略能將世界市場所強加的經濟壓力與一個國家的歷史、價值體系及傳統所塑成的社會需求加以平衡時，這些策略即能成功。

在一個全球化的世界中，各國競爭著維持並增進其生活水準。但國家競爭力是一個多面向的概念，因此引導出不同的測量方法及定義。世界競爭力(World Competitiveness)的概念提供了一套參照架構，用以評估各國如何管理其未來經濟。它不只測量經濟績效、國家財力或權力。這個概念源自很長一段思想的歷史及極大量的研究結果。目前在《世界競爭力年報》中使用的兩類定義：

1.學術定義(Academic Definition)：「國家競爭力是一個經濟知識領域，分析各種可以形成一個國家創造及維持一個環境，以協助其企業創造更多價值、其人民更加繁榮能力的事實和政策。」¹

這個定義如同所有學術定義一樣，具有涵蓋性但很難讀懂。《世界競爭力年報》同時採用一個較簡短的日常版本，雖然較不完整但卻較能令人理解。

2.企業定義(Business Definition)：「國家競爭力探討國家如何創造及維持一

¹ “Competitiveness of Nations is a field of Economic knowledge, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people.”

個支持其企業競爭力的環境。」²

此一定義強調了本質問題：國家競爭力關注的是國家所執行有關塑造企業外在環境的各種政策。據此可知，一個國家與各個企業所追求的經濟目標有所不同。換言之，我們可以發現，在創造一個有助於企業競爭力及鼓勵永續發展方面，若干國家較其他國家更能支持競爭力。

《世界競爭力年報》基本上視國家競爭力為一個經濟知識領域，分析各種可以形塑一個國家創造及維繫有助於其企業創造更多價值、人民更為繁榮的事實及政策。更具體而言，企業必須仰賴它們營運所在的國家環境。有些國家較能支持競爭力，原因即在於能夠創造一個有助於企業競爭力及鼓勵永續經營的外在環境。《世界競爭力年報》所評比及分析的，即是這些環境因素。

一個國家或地區要如何改進其競爭力？這並沒有單一的答案，必須要考慮一個國家或地區的具體環境、價值體系及文化傳承，才能斷定何者為可行作法，判斷什麼是建議方案的後果及政策意涵。

國際管理學院《世界競爭力年報》探討一個國家的國家環境(國家對此可扮演關鍵角色)與財富創造過程(由企業與個人所扮演)二者之間的關係。《世界競爭力年報》將研究重點置於四個競爭力因素互動的結果，這四個因素大體界定了一個國家的國家環境。這些因素是：

- 1.經濟績效(Economic Performance)
- 2.政府效率(Government Efficiency)
- 3.企業效率(Business Efficiency)
- 4.基礎建設(Infrastructure)

以這四個因素為基礎，再加上 320 以上的標準，《世界競爭力年報》假設：在這些面向健康的表現，會創造一個維繫世界競爭力的國家環境。另一方面，各國根據四個基本因素管理他們的環境：這四個面向塑造該國的競爭力環境。他們通常是傳統、歷史或價值體系的產物，而且深植於一個國家的「實作方法」中，

² “Competitiveness of nations looks how nations create and maintain an environment which sustains the competitiveness of its enterprises”.

很難清楚說明或定義。表 3-2 是世界競爭力的主要原則：

表 3-2 世界競爭力之各項原則(Principles of World Competitiveness)

<p>I 經濟績效</p> <ol style="list-style-type: none">1. 一個國家的繁榮程度，反映的是其過去的經濟績效。2. 由市場力量所決定的競爭力，可以改善一個國家的經濟績效。3. 國內經濟越具有競爭力，國內廠商到了國外也越有競爭力。4. 一個國家在國際貿易上的成功，反映的是其國內公司的競爭力（前提是沒有貿易障礙）。5. 對國際經濟活動開放，可增進一個國家的經濟績效。6. 國際投資可以使全世界經濟資源配置得更有效率。7. 輸出導向的競爭力常與國內經濟的成長取向有關連。 <p>II 政府效率</p> <ol style="list-style-type: none">1. 除了為企業創造競爭條件的作為之外，國家應對企業的介入降低到最小程度。2. 然而，政府應提供可預測的總體經濟及社會情境，將經濟企業的外部風險降至最小程度。3. 政府在因應變遷的國際環境而調整其經濟政策時，必須要有彈性。4. 政府應提供一個可以促進公平、平等及正義的社會結構，同時確保人民的安全。 <p>III 企業效率</p> <ol style="list-style-type: none">1. 效率以及在競爭環境中適應變遷的能力，是企業競爭力的關鍵性管理特質。2. 財務能力有助於增加價值活動。3. 一個國家內部的健全發展、國際整合的財務部門，可以支持其國際競爭力。4. 維持一個高品質的生活水準，有賴於與國際經濟的整合。5. 企業家精神對經濟活動的起飛階段極屬重要。6. 一支有技能的勞動力可增進一個國家的競爭力。7. 生產力反映的是價值增加。8. 勞動力的態度會影響一個國家的競爭力。 <p>IV 基礎建設</p> <ol style="list-style-type: none">1. 一個健全發展、包含有效率之企業體系在內的基礎建設，可以支持經濟活動。2. 一個健全發展的基礎建設同時也包含資訊科技與有效保護環境。3. 競爭優勢可以建基在現有科技的有效率而創新的應用上。4. 在基本研究及可創造新知識的創新活動上投資，對一個處於經濟發展較為成熟階段的國家極屬重要。5. 在研究發展上的長期投資很可能增加企業的競爭力。6. 生活品質是國家吸引力的一部分。7. 適當且可以取得的教育資源有助於發展知識驅動的經濟。

在一個新的競爭力世界中，國家的角色與職責，既不變大，也不變小。它們只是變得不同。國家繼續透過課稅、教育及衛生等許多不同的方法塑造競爭力環境。新的職責領域諸如安全或移民等正在發展。先前的職責正在被重新定義中。例如，國家經常捨棄不再直接涉入營建及基礎建設。大多數電信、能源或運輸作業的民營化，都彰顯此一趨勢。然而，在公眾眼中，政府仍舊是一個國家基礎建設完整性的最終保證者，即使它已將營運職責授權給民間部門。

競爭力是一個動態概念。由於每個人幾乎均與其他人競爭，結果迫使一個國家中的每位經濟行為者必須從這個立場重新思考其角色及職責。也許，最困難的一關是跳過傳統經濟理論，亦即傳統所強調的輸出、有形貨品及基礎建設。競爭力同時強調教育、知識、無形財貨及科技基礎建設的重要性。

各國要具備或保持競爭力，必須要做什麼？他們必須遵循下圖的競爭力黃金守則：

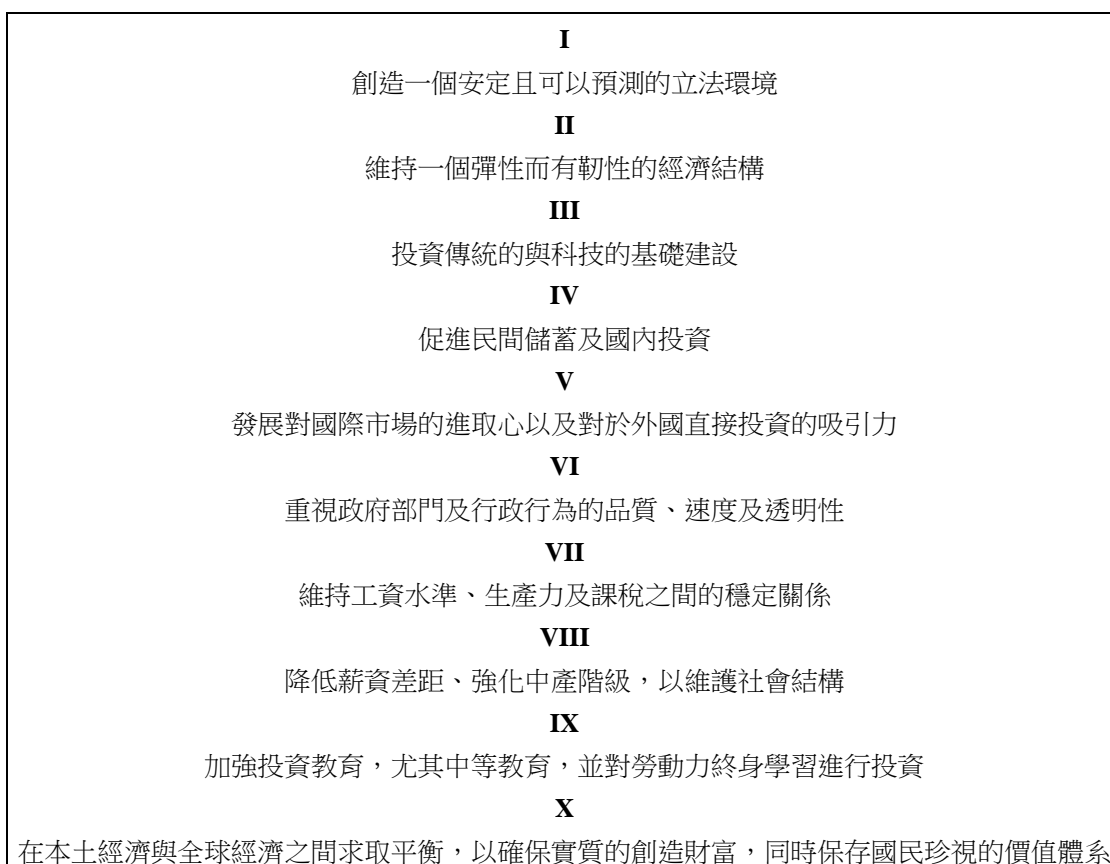


圖 3-2 競爭力黃金守則

二、競爭力分析方法

目前國際間對國家競爭力的研究，除了洛桑國際管理學院的《世界競爭力年報》外，另一個常被引用的是世界經濟論壇(World Economic Forum, WEF)中的《全球競爭力報告》(Global Competitiveness Report) (WEF, 2004)。不過，這二種競爭力報告常會有不同的評等³。《世界競爭力年報》(國際管理學院)與《全球競爭力報告》(世界經濟論壇)的一項主要差異，是後者強調意見調查資料，而《世界競爭力年報》則強調來自國際、國家及地區性的具體統計數據。正因為如此，世界經濟論壇所涵蓋的國家多達 102 個，遠多於國際管理學院所分析的 60 個國家；因為要在這麼多經濟體中找到具體統計數據，幾乎不可能。這同時會衍生完全依賴主觀意見資料進行評比的效率及可靠性問題。國際管理學院偏好依賴具體數據的相對客觀途徑。

《世界競爭力年報》(World Competitiveness Yearbook, WCY)每年就各國創造及維繫足以促進企業競爭力之外在環境的能力加以評比及分析。研究人員的基本假設是財富的創造主要源自企業，不論是私有或國有——此一研究領域稱為「企業競爭力」。然而，企業必然在一個國家環境中運作，此一環境或協助、或妨礙其在國內或國際的競爭能力——此一研究領域稱為「國家競爭力」，由《世界競爭力年報》所涵蓋。

根據頂尖學者及洛桑國際管理學院本身的研究及經驗，《世界競爭力年報》的方法論將國家環境劃分成四個主要因素：A.經濟績效；B.政府效率；C.企業效率；D.基礎建設。接著，每一個因素再劃分為五個次因素，就所分析領域之每一面向進一步強調。總計，《世界競爭力年報》以此 20 個次因素為特色。此二十個次因素包含了 300 個以上的評估標準，其中每一次因素所包含的評估標準數目並不一致(例如，評量「教育」所用之標準數量即多於評量「價格」者)。每一次因素，雖其涵蓋之評估標準數量不同，卻在整個結果合算中享有相同的權重，即 5% (20x5 =100)。評估標準可能為採用具體數據(hard data)，即以可以測量者(如 GDP)

³ 台灣在 2004 年《世界競爭力年報》總體排名為第 12，在 2004-2005 年《全球競爭力報告》中排名第 4。

分析競爭力，也可能採用訪談資料(soft data)，以可以感受者(如具勝任能力之管理者是否堪用)分析競爭力。具體的評估標準在整體評等過程中占有三分之二的權重，調查資料則占有三分之一權重。此外，若干評估標準僅作為背景資訊，亦即不納入整體競爭力評等時計算(例如，「人口數低於 15」)。最後，將此 20 個次因素整合後形成總評估，據以作為《世界競爭力年報》的整個評等。

《世界競爭力年報》研究團隊分別蒐集量化及質性兩種資訊：具體數據(hard data)在最後評比中占有 2/3 的比重，其統計數據來自國際、國家及地區性組織，諸如 OECD、世界銀行、聯合國、WTO、UNESCO、IMF 及洛桑國際管理學院的全球伙伴機構；訪談資料(soft data)則來自洛桑國際管理學院的年度高級主管意見調查，占最後評比的 1/3 比重。具體數據分析的是可測量的資料(如 GDP)，訪談資料分析的則是可感受的資料。意見調查主要用來補充具體數據，協助量化若干不易測量的競爭力變項，諸如管理方法、勞資關係、貪污、環境議題或生活品質。由於意見調查資料並無時間落差，基本上較新，較貼近於事實，反之，具體數據可能會有時間落差，所呈現的可能是「過去的圖像」。超過 4000 位高級主管參與《世界競爭力年報》的意見調查。受訪者在每一個國家或地區的企業界具有代表性。

每一個次因素下的評估標準數量不相一致。這是因為，經濟績效因素下的「價格」定義十分清楚，只需要很少的評估標準便可衡量一個經濟體的表現。另一方面，基礎建設因素下的「科技基礎建設」則有多種不同面貌，需要較多的評估標準才能衡量一個經濟體的表現。這是為何每一個次因素下的評估標準數量有所不同的原因，不過，在整體評比時，每一個次因素的權重均為等同。

《世界競爭力年報》採用數量眾多的評估標準，目的在確保能夠對各經濟體的競爭力提供清楚的圖像，並作為一個安全網，避免特定評估標準造成過大的誤差。

《世界競爭力年報》在全球擁有 57 個伙伴機構，提供該經濟體的第一手資訊，因此《世界競爭力年報》對如此多的國家瞭若指掌。這些伙伴機構同時確保意見調查的當地專家樣本具有該企業社區的代表性。

三、世界競爭力分析之變項

洛桑國際管理學院出版的《世界競爭力年報》，分析四項因素：

1.經濟績效(Economic Performance)，包括五項次因素：國內經濟(Domestic Economy)、國際貿易(International Trade)、國際投資(International Investment)、就業(Employment)、價格(Prices)。

2.政府效率(Government Efficiency)，包括五項次因素：公部門財政(Public Finance)、貨幣政策(Fiscal Policy)、制度架構(Institutional Framework)、企業立法(Business Legislation)、社會架構(Societal Framework)。

3.企業效率(Business Efficiency)，包括五項次因素：生產力(Productivity)、勞動市場(Labor Market)、財務(Finance)、管理措施(Management Practices)、態度及價值(Attitudes and Values)

4.基礎建設(Infrastructure)，包括五項次因素：基本建設(Basic Infrastructure)、科技基礎建設(Technological Infrastructure)、科學基礎建設(Scientific Infrastructure)、衛生及環境(Health and Environment)、教育(Education)。

各個次因素分列評估標準，總計有 323 個。請參見表 3-3：

表 3-3 世界競爭力評估標準

因素-I：經濟績效(Economic Performance)	
次因素-1：國內經濟(Domestic Economy)	
Gross domestic product (GDP) US\$ billions	Agriculture sector- real growth Percentage change, based on national currency in constant prices
GDP (PPP) Estimates; US\$ billions at purchasing power parity	Industrial production - real growth Percentage change, based on national currency in constant prices
Private final consumption expenditure US\$ billions	Services sector - real growth Percentage change, based on national currency in constant prices
Private final consumption expenditure Percentage of GDP	Resilience of the economy is strong
Government final consumption expenditure US\$ billions	GDP per capita US\$ per capita
Government final consumption expenditure Percentage of GDP	GDP per capita (ppp) Estimates; US\$ per capita at purchasing power parity
Gross domestic investment US\$ billions	Private final consumption expenditure per capita US\$ per capita
Gross domestic investment Percentage of GDP	Government final consumption expenditure per capita US\$ per capita
Gross domestic savings US\$ billions	Gross domestic investment per capita US\$ per capita
Gross domestic savings Percentage of GDP	Gross domestic savings per capita US\$ per capita
Economic sectors Breakdown as a percentage of GDP	Forecast: Real GDP Growth Percentage change, based on national currency in constant prices
Real GDP Growth Percentage change, based on national currency in constant prices	Forecast: Private consumption expenditure - real growth Percentage change, based on national currency in constant prices
Real GDP Growth per capita Percentage change, based on national currency in constant prices	Forecast: Gross domestic investment - real growth Percentage change, based on national currency in constant prices
Private final consumption expenditure - real growth Percentage change, based on national currency in constant prices	Forecast: Inflation Percentage change
Government final consumption expenditure - real growth Percentage change, based on national currency in constant prices	Forecast: Unemployment Percentage of total labor force
Gross domestic investment - real growth Percentage change, based on national currency in constant prices	

<p>Gross domestic savings - real growth Percentage change, based on national currency in constant prices</p>	<p>Forecast: Current account balance Percentage of GDP/GNP</p>
<p>次因素-2：國際貿易(International Trade)</p>	
<p>Current account balance US\$ billions (minus sign = deficit)</p> <p>Current account balance Percentage of GDP</p> <p>Balance of trade US\$ billions (minus sign = deficit)</p> <p>Balance of trade Percentage of GDP</p> <p>Balance of commercial services US\$ billions (minus sign = deficit)</p> <p>Balance of commercial services Percentage of GDP</p> <p>Exports of goods US\$ billions</p> <p>Exports of goods Percentage of GDP</p> <p>Exports of goods - real growth Percentage change based on US\$ values</p> <p>Exports of commercial services US\$ billions</p> <p>Exports of commercial services Percentage of GDP</p>	<p>Exports of commercial services - real growth Percentage change based on US\$ values</p> <p>Exports breakdown by economic sector Percentage of total exports</p> <p>Imports of goods & commercial services US\$ billions</p> <p>Imports of goods & commercial services Percentage of GDP</p> <p>Imports of goods & commercial services - real growth Percentage change based on US\$ values</p> <p>Imports breakdown by economic sector Percentage of total imports</p> <p>Trade to GDP ratio (Exports + Imports) / (2 x GDP)</p> <p>Terms of trade index Unit value of exports over unit value of imports (1995 = 100)</p> <p>Tourism receipts International tourism receipts as a percentage of GDP</p>
<p>次因素-3：國際投資(International Investment)</p>	
<p>Direct investment flows abroad US\$ billions</p> <p>Direct investment flows abroad Percentage of GDP</p> <p>Direct investment stocks abroad US\$ billions</p> <p>Direct investment stocks abroad - real growth Percentage change based on US\$ values</p> <p>Direct investment flows inward US\$ billions</p> <p>Direct investment flows inward Percentage of GDP</p> <p>Direct investment stocks inward US\$ billions</p> <p>Direct investment stocks inward - real growth Percentage change based on US\$ values</p> <p>Balance of direct investment flows</p>	<p>Balance of direct investment flows Percentage of GDP (flows abroad minus flows inward)</p> <p>Net position in direct investments stocks US\$ billions (stocks abroad minus stocks inward)</p> <p>Net position in direct investments stocks Percentage of GDP (stocks abroad minus stocks inward)</p> <p>Relocation threats of production is not a threat to the future of your economy</p> <p>Relocation threats of R&D facilities is not a threat to the future of your economy</p> <p>Relocation threats of services is not a threat to the future of your economy</p> <p>Portfolio investments assets US\$ billions</p> <p>Portfolio investments liabilities US\$ billions</p>

US\$ billions (flows abroad minus flows inward)	
次因素-4：就業(Employment)	
Employment Total employment in millions Employment Percentage of population Employment - growth Estimates: percentage change Employment by sector Percentage of total employment Employment in the public sector Percentage of total employment	Part-Time Employment Percentage of total employment Unemployment rate Percentage of labor force Long-term unemployment Percentage of labor force Youth unemployment Percentage of labor force
次因素-5：價格(Prices)	
Consumer price inflation Average annual rate Cost-of-living index Cost index of basket of goods in major cities, excluding housing (New York City = 100)	Apartment rent 3-room apartment monthly rent in major cities, US\$ Office rent Total occupation cost (US\$/Sq.M per year)

因素-II：政府效率(Government Efficiency)	
次因素-1：公部門財政(Public Finance)	
Central government budget surplus/deficit US\$ billions Central government budget surplus/deficit Percentage of GDP Central government domestic debt US\$ billions Central government domestic debt Percentage of GDP Central government foreign debt US\$ billions Central government foreign debt Percentage of GDP	Central government total debt - real growth Percentage change, based on national currency in constant prices Interest payment Percentage of current revenue Management of public finances improve Total reserves Including gold and official reserves (gold = SDR 35 per ounce) General government expenditure Percentage of GDP
次因素-2：貨幣政策(Fiscal Policy)	
Collected total tax revenues Percentage of GDP Effective personal income tax rate Percentage of an income equal to GDP per capita Collected personal income tax On profits, income and capital gains, as a percentage of GDP	Collected corporate taxes On profits, income and capital gains, as a percentage of GDP Employer social security contribution rate Compulsory contribution as a percentage of an income equal to GDP per capita Collected employer social security contribution

<p>Employee social security contribution rate Compulsory contribution as a percentage of an income equal to GDP per capita</p> <p>Collected employee social security contribution Compulsory contribution as a percentage of GDP</p> <p>Real personal taxes Do not discourage people from working or seeking advancement</p> <p>Corporate tax rate on profit Maximum tax rate, calculated on profit before tax</p>	<p>Compulsory contribution as a percentage of GDP</p> <p>Real corporate taxes Do not discourage entrepreneurial activity</p> <p>Collected capital and property taxes Percentage of GDP</p> <p>Collected indirect tax revenues Taxes on goods and services as a percentage of GDP</p> <p>Tax evasion Does not hamper business activity</p>
<p>次因素-3：制度架構(Institutional Framework)</p>	
<p>Real short-term interest rate Real discount / bank rate</p> <p>Cost of capital encourages business development</p> <p>Interest rate spread Lending rate minus deposit rate</p> <p>Country credit rating Rating on a scale of 0-100 assessed by the Institutional Investor Magazine ranking</p> <p>Central bank policy Positive impact on economic development</p> <p>Exchange rate policy supports the competitiveness of enterprises</p> <p>Exchange rate stability Parity change from national currency to SDR, 2002/2000</p> <p>Policy direction of the government is consistent</p>	<p>Legal framework encourages the competitiveness of enterprises</p> <p>New legislation encourages the competitiveness of enterprises</p> <p>Adaptability of government policy High</p> <p>Government decisions are effectively implemented</p> <p>Political parties do understand today's economic challenges</p> <p>Transparency Satisfactory</p> <p>Public service is independent from political interference</p> <p>Bureaucracy does not hinder business activity</p> <p>Bribing and corruption do not exist in the economy</p>
<p>次因素-4：企業立法(Business Legislation)</p>	
<p>Customs' authorities do facilitate the efficient transit of goods</p> <p>Protectionism does not affect the conduct of your business</p> <p>Public sector contracts are sufficiently open to foreign bidders</p> <p>Export credits and insurance are available at reasonable prices for companies</p> <p>Government subsidies To private and public companies as a percentage of GDP</p> <p>Subsidies do not impair economic development</p> <p>Competition legislation is efficient in preventing unfair competition</p>	<p>Start-up days Number of days to start a business</p> <p>Labor regulations do not hinder business activities</p> <p>Unemployment legislation provides an incentive to look for work</p> <p>Immigration laws do not prevent your company from employing foreign labor</p> <p>Legal regulation of financial institutions Adequate for financial stability</p> <p>Cross-border transactions can be freely negotiated with foreign partners</p> <p>Foreign investors</p>

<p>Product and service legislation does not deter business activity</p> <p>Price controls do not affect pricing of products in most industries</p> <p>Parallel economy does not impair economic development</p> <p>Ease of doing business is a competitive advantage for your economy</p> <p>Creation of firms Supported by legislation in your economy</p>	<p>are free to acquire control in domestic companies</p> <p>Access to capital markets is easily available</p> <p>Investment incentives are attractive to foreign investors</p> <p>Investment protection schemes are available for most foreign partners</p>
--	--

次因素-5：社會架構(Societal Framework)

<p>Justice is fairly administered in society</p> <p>Personal security and private property are adequately protected</p> <p>Protection of the private sphere is enforced in your economy</p> <p>Risk of political instability very low</p> <p>Social cohesion is a priority for the government</p> <p>Serious crime Number of murders, violent crimes or armed robberies per 100,000 inhabitants (not comparable across countries)</p> <p>Income distribution - lowest 20% Percentage of household incomes going to lowest 20% of households</p>	<p>Income distribution - highest 20% Percentage of household incomes going to highest 20% of households</p> <p>Discrimination does not pose a handicap in society</p> <p>Females in parliament Percentage of total seats in Parliament</p> <p>Female positions Percentage of total legislators, senior officials and managers</p> <p>Gender income ratio Ratio of estimated female to male earned income globally</p> <p>Harassment and violence do not destabilize the workplace</p>
--	---

因素-III：企業效率(Business Efficiency)

次因素-1：生產力(Productivity)

<p>Overall productivity (PPP) Estimates: GDP (PPP) per person employed, US\$</p> <p>Overall productivity GDP per person employed, US\$</p> <p>Overall productivity - real growth Estimates: Percentage change of real GDP per person employed</p> <p>Labor productivity (PPP) Estimates: GDP (PPP) per person employed per hour, US\$</p> <p>Labor productivity GDP per person employed per hour, US\$</p>	<p>Agricultural productivity Related GDP per person employed in agriculture, US\$</p> <p>Productivity in industry (PPP) Estimates: Related GDP (PPP) per person employed in industry, US\$</p> <p>Productivity in industry Related GDP per person employed in industry, US\$</p> <p>Productivity in services (PPP) Estimates: Related GDP (PPP) per person employed in services, US\$</p> <p>Productivity in services Related GDP per person employed in services, US\$</p>
---	--

<p>Agricultural productivity (PPP) Estimates: Related GDP (PPP) per person employed in agriculture, US\$</p>	
<p>次因素-2：勞動市場(Labor Market)</p>	
<p>Compensation levels Estimates: Total hourly compensation for manufacturing workers (wages + supplementary benefits), US\$</p> <p>Unit labor costs in the manufacturing sector Percentage change</p> <p>Remuneration in services professions Gross annual income including supplements such as bonuses, in US\$</p> <p>Remuneration of management Total base salary plus bonuses and long-term incentives, US\$</p> <p>Working hours Average number of working hours per year</p> <p>Labor relations Productive</p> <p>Worker motivation High in your economy</p> <p>Industrial disputes Working days lost per 1,000 inhabitants per year (Average 2000-2002)</p> <p>Employee training is a high priority in companies</p>	<p>Labor force Employed and registered unemployed</p> <p>Labor force Percentage of population</p> <p>Labor force growth Percentage change</p> <p>Female labor force Percentage of total labor force</p> <p>Foreign labor force Percentage of total labor force</p> <p>Skilled labor is readily available</p> <p>Finance skills are readily available</p> <p>Brain drain does not hinder competitiveness in your economy</p> <p>Foreign high-skilled people are attracted by the business environment of your economy</p> <p>International experience Significant</p> <p>Competent senior managers are available</p>
<p>次因素-3：財務(Finance)</p>	
<p>Banking sector assets Percentage of GDP</p> <p>Financial assets of institutional investors US\$ billions</p> <p>Credit flows easily from banks to businesses</p> <p>Number of credit cards issued Per capita</p> <p>Credit card transactions Number of transactions per capita</p> <p>Investment Risk Euro-money country credit-worthiness scale from 0-100</p> <p>Venture capital is easily available for business development</p> <p>Banking and financial services are widely developed in your economy</p>	<p>Stock market capitalization US\$ billions</p> <p>Stock market capitalization Percentage of GDP</p> <p>Value traded on stock markets US\$ per capita</p> <p>Listed domestic companies Number of listed domestic companies</p> <p>Stock market index Percentage change on index</p> <p>Rights and responsibilities of shareholders are well-defined</p> <p>Financial institutions' transparency is widely developed in your economy</p> <p>Insider trading is not common in the stock market</p>

Retail banking Population /number of bank offices Banking regulation does not hinder competitiveness in your economy Stock markets provide adequate financing to companies	Cash flow Sufficient to allow companies to self-finance Corporate debt does not restrain the ability of enterprises to compete in your economy Factoring Percentage of merchandise exports
次因素-4：管理措施(Management Practices)	
Adaptability high for companies in your economy Ethical practices are implemented in companies Credibility of managers is widely acknowledged in the economy Corporate boards do supervise the management of companies effectively Shareholder value is efficiently managed	Customer satisfaction is emphasized in your economy Entrepreneurship is widespread in your economy Marketing is conducted efficiently by enterprises in your economy Social responsibility high towards society Health, safety & environmental concerns are adequately addressed by management
次因素-5：態度及價值(Attitudes and Values)	
Attitudes toward globalization Positive in your economy Image abroad encourages business development National culture Open to foreign ideas	Flexibility and adaptability High when faced with new challenges Need for economic and social reforms is generally understood by people in your society Values of society support competitiveness

因素-IV：基礎建設(Infrastructure)	
次因素-1：基本建設(Basic Infrastructure)	
Land area Square kilometers ('000) Arable area Square meters per capita Urbanization does not drain economic resources Population - market size Estimates in millions Population under 15 years Percentage of total population Population over 65 years Percentage of total population Dependency ratio Population under 15 and over 64 years old, divided by	Maintenance and development are adequately planned and financed Energy infrastructure is adequate and efficient in your economy Total indigenous energy production Millions MTOE Total indigenous energy production per capita Millions MTOE per capita Total indigenous energy production Percentage of total requirements in tons of oil equivalent Total final energy consumption Millions MTOE Total final energy consumption per capita Millions MTOE per capita

<p>active population (15 to 64 years)</p> <p>Roads Density of the network</p> <p>Railroads Density of the network</p> <p>Air transportation Number of passengers carried by main companies</p> <p>Quality of air transportation encourages business development in your economy</p> <p>Distribution infrastructure Efficient</p> <p>Water transportation meets business requirements</p>	<p>GDP and energy consumption Real GDP growth minus energy consumption growth</p> <p>Energy intensity Commercial energy consumed for each dollar of GDP in kilojoules</p> <p>Energy imports vs merchandise exports Energy imports as a percentage of merchandise exports in US\$</p> <p>Electricity costs for industrial clients US\$ per kwh</p>
<p>次因素-2：科技基礎建設(Technological Infrastructure)</p>	
<p>Investment in telecommunications Percentage of GDP</p> <p>Fixed telephone lines Number of main lines per 1000 inhabitants</p> <p>International fixed telephone costs US\$ per 3 minutes in peak hours to USA (for USA to Europe)</p> <p>Mobile telephone subscribers Number of subscribers per 1000 inhabitants</p> <p>Mobile telephone costs US\$ per 3 minutes in peak hours (local)</p> <p>Communications technology Meets business requirements</p> <p>Computers in use Worldwide share / Source: Computer Industry Almanac</p> <p>Computers per capita Number of computers per 1000 people / Source: Computer Industry Almanac</p> <p>Internet users Number of internet users per 1000 people / Source: Computer Industry Almanac</p>	<p>Internet costs Cost for 20 hours dial-up use per month, (US\$)</p> <p>Broadband subscribers Number of subscribers per 1000 inhabitants</p> <p>Information technology skills are readily available</p> <p>Technological cooperation Developed between companies</p> <p>Development and application of technology Supported by the legal environment</p> <p>Funding for technological development is generally sufficient</p> <p>High-tech exports US\$ millions</p> <p>High-tech exports Percentage of manufactured exports</p> <p>Cyber security is being adequately addressed by corporations</p>
<p>次因素-3：科學基礎建設(Scientific Infrastructure)</p>	
<p>Total expenditure on R&D US\$ millions</p> <p>Total expenditure on R&D per capita US\$ per capita</p> <p>Total expenditure on R&D Percentage of GDP</p> <p>Business expenditure on R&D US\$ millions</p>	<p>Interest in science and technology is strong among the youth</p> <p>Nobel prizes Awarded in physics, chemistry, physiology or medicine and economics since 1950</p> <p>Nobel prizes per capita Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people</p>

<p>Business expenditure on R&D per capita US\$ per capita</p> <p>Total R&D personnel nationwide Full-time work equivalent (FTE)</p> <p>Total R&D personnel nationwide per capita Full-time work equivalent (FTE) per 1000 people</p> <p>Total R&D personnel in business enterprise Full-time work equivalent (FTE)</p> <p>Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people</p> <p>Basic research does enhance long-term economic development</p> <p>Scientific articles Scientific articles published by origin of author</p> <p>Science in schools is adequately taught</p>	<p>Patents granted to residents Number of patents granted to residents</p> <p>Securing patents abroad Number of patents secured abroad by country residents</p> <p>Patent and copyright protection is adequately enforced</p> <p>Number of patents in force Per 100,000 inhabitants</p> <p>Patent productivity Patents granted to residents / R&D personnel in business ('000s)</p> <p>Legal environment affecting R&D does not restrain business development</p>
<p>次因素-4：衛生及環境(Health and Environment)</p>	
<p>Total health expenditure Percentage of GDP</p> <p>Public expenditure on health Percentage of total health expenditure</p> <p>Life expectancy at birth Average estimate</p> <p>Healthy life expectancy Average estimate</p> <p>Medical assistance Number of inhabitants per physician and per nurse</p> <p>Health infrastructure meets the needs of society</p> <p>Urban population Percentage of total population</p> <p>Human development index Combines economic - social - educational indicators / Source: Human Development Report</p> <p>Alcohol and drug abuse do not pose problems at the work place</p>	<p>Paper and cardboard recycling rate Percentage of apparent consumption</p> <p>Waste water treatment plants Percentage of population served</p> <p>Carbon dioxide emissions CO2 industrial emissions in metric tons per one million US\$ of GDP</p> <p>Ecological footprint Area units per person, hectares of biologically productive space</p> <p>Sustainable development is a priority in your economy</p> <p>Pollution problems do not affect seriously the infrastructure of your economy</p> <p>Environmental laws do not hinder the competitiveness of businesses</p> <p>Quality of life high</p>
<p>次因素-5：教育(Education)</p>	
<p>Total public expenditure on education Percentage of GDP</p> <p>Pupil-teacher ratio (primary education) Ratio of students to teaching staff</p> <p>Pupil-teacher ratio (secondary education) Ratio of students to teaching staff</p> <p>Secondary school enrollment</p>	<p>University education meets the needs of a competitive economy</p> <p>Illiteracy Adult (over 15 years) illiteracy rate as a percentage of population</p> <p>Economic literacy high among the population</p>

Percentage of relevant age group receiving full-time education	Education in finance does meet the needs of enterprises
Higher education achievement	Qualified engineers
Percentage of population that has attained at least tertiary education for persons 25-34	are available in your labor market
Educational assessment	Knowledge transfer
PISA survey of 15-year olds	highly developed between companies and universities
Educational system	
Meets the needs of a competitive economy	

四、參訪心得

在過去二十年之中，科技革命——電腦、電信及現在的網際網路——對國家競爭力產生深遠的影響。科技基礎建設已成為一個國家未來競爭力的重要資財。足夠的價廉而有效的電信體系，與網際網路的連結，行動電話的發展，都只是想要有競爭力的國家必要的少數新科科優先議題。因此，一國具競爭力的國家其優先課題是發展可以操作新科技基礎建設、願意為未來發展站在第一線的人力資源。

企業對新科技的需求，迫使國家將科技視為優先課題。吸引研究中心、在當地大學與企業之間發展合作關係，對一個國家的競爭力的重要性已不下於吸引外國直接投資。網際網路可以讓各個公司發展電子商業、電子採購、拍賣、跨越國境的電子市場。這促使各國發展各先進的科技基礎建設。

競爭力在今天已從有形轉到無形，從多少噸貨物轉到多少位元資訊。競爭力已進入知識經濟。

考試院職掌公務人員考試與專門職業及技術人員考試，在參訪洛桑國際管理學院時，經深入會談，再一次確認了考試制度有助於提昇國家競爭力評比，其中國家公務人員考試所甄選之人才與政府效率、提供基礎建設部分間接相關，專技人員考試與企業效率間接關連；訪談過程中，亦提及雙方合作計畫，包括可研究派遣公務人員到該校受訓。

提昇國家競爭力是政府各部門必須共同致力的目標，多年來，考試制度不僅為國家及社會考選人才，投入國家建設；透過考試公平機制的維繫，考試制度也形成支撐社會安定的重要力量。基於此，未來考選行政應該繼續努力，在確保考試公平性之原則下，配合機關的用人需求，以及民眾對專業服務的需要，舉行各種公務人員考試與專門職業及技術人員考試，同時精進考試技術，提昇考試信度及效度，確保甄選之人才符合國家及社會所需，進而協助提昇行政效率，建構企業競爭力的基礎建設。

參考書目

- IMD (International Institute for Management Development), 2004, *World Competitiveness Yearbook*, <http://www02.imd.ch/wcc/>, accessed October 11, 2004.
- WEF (World Economic Forum), 2004, *Global Competitiveness Report 2004-2005*, <http://www.weforum.org/site/homepublic.nsf/Content/Global+Competitiveness+Programme%5CGlobal+Competitiveness+Report>, accessed December 5, 2004.