改變國防部「設計計劃預算制度」：第二階段報告（譯稿）之四
Changing the Pentagon's Planning, Programming and Budgeting System: Phase 4 Report

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參、改變流程與程序

III、Process and Procedural Change

一、順序控制

a、Managing the sequence

在討論戰略規劃流程管理時，明茲伯格評論到：「規劃模式裡所有整齊的順序掩飾著流程中許多的混亂……。目標、預算、戰略及計畫並非如基本模式中所設想的密切配合。」[1] 所有規劃流程都難以控制與排序，組織愈大活動愈多樣則管理挑戰就愈大。國防部無法免於這種趨勢，在過去數年來既定的流程，PPB制度各階段的排序狀況也變得越來越混亂。

In discussing the management of strategic planning processes, Mintzberg observed that, "all of the neat order of the planning model belies a good deal of confusion in the whole process... Objectives, budgets, strategies, and programs do not mesh quite so cleanly as assumed in the basic model."[2] All planning processes are difficult to manage and sequence, and the bigger the organization and more diverse it activities, the greater the management challenge. The Pentagon is not immune from such trends, and over the course of the past several years the sequencing of the phases of PPBS has become increasingly chaotic.

1995年「角色與任務委員會」報告即指出：PPB制度各階段呈「半自主地」運作。本質上，這意指各階段原本始終連續互爲依賴的一個制度已演變成各階段重疊，甚或模糊不清的情形。這類例子多得不勝枚舉。

The CORM report in 1995 stated that the phases of PPBS were operating "semi-autonomously." In essence, this meant that a system that was intended to consistent of sequential, dependent phases had evolved into one where the phases were overlapping to the point of being essentially indistinct. There are numerous examples.

概念上「計畫目標備忘錄」應該都是遵照「國防計畫指導」之方向撰擬；然而1993年部辦室在表訂軍種提報「計畫目標備忘錄」日期前一天才頒布「國防計畫指導」。此外，軍種「計畫目標備忘錄」早在「由下而上評論—柯林頓政府首份國防計畫指導」完成發布前幾週即提報完畢。換言之，設計與規劃兩者重疊到無法予以區分的地步。雖然「由下而上評論」指示陸軍將十二個師的兵力結構精簡成十個師，但陸軍仍按十二個師之作業成本編列計畫；再者，陸軍根據布希政府指導規劃一支較小型的後備兵力，其後卻發現新政府（柯林頓）希望建立一支較大型的後備部隊。針對此種情況所做的改變勢必導致一些倉促調整，而引發無可避免的計劃性失衡，進而導致激進與保守派計畫參謀之間的嫌隙更加嚴重。[3]

In 1993, OSD issued its DPG the day before the service POMs, which conceptually had been drafted conforming to DPG directions, were scheduled for submission. Furthermore, the service POMs were submitted weeks before the Bottom Up Review, the first Clinton Administration's de facto DPG, was completed and released. In other words, planning and programming were overlaid to a degree making them essentially indistinguishable. Although the BUR directed the Army to reduce its force structure to ten divisions from twelve, the Army had built its program assuming operations costs for twelve divisions. Furthermore, it had programmed for a smaller reserve force based upon guidance from the Bush Administration only to find that the new administration envisioned a significantly larger reserve program. Making these changes resulted in several hasty adjustments creating inevitable programmatic imbalances, and resulting in increased friction between active and reserve component planning staffs.[4]

1997年5月發布四年國防總檢，6月軍種提報「計畫目標備忘錄」，9月軍種提報「預算書表」，但直到11月才發布由聯參撰擬的「國家軍事戰略」（NMS）。在概念上，「國家軍事戰略」將「國家安全戰略指導」（比國防計畫指導早三天發布）轉化爲更詳盡的軍事命令以供軍種編製「計畫目標備忘錄」；PPB制度這種非同步的特點已變成該制度無法適時提出及解決重要議題的重大因素。如同某位資深前國防官員所說

的：「我對該流程目前疏於控制的情形印象深刻。假如國防部副部長對該狀況不予掌控，並設法將其導正，其所衍生的問題自然無法避免。」[5]

In 1997, the QDR was released in May followed by service POMs in June and service Budget Submissions in September, but it was not until November that the National Military Strategy （NMS） prepared by the Joint Staff was released. Conceptually, the NMS translates the guidance of the National Security Strategy （which had itself been issued three days prior to the DPG） into more detailed military instructions for the services' use in constructing their POMs. This asynchronous dimension of PPBS has become a significant element in its inability to raise and resolve major issues in a timely manner. As one former senior defense official noted, "I have had the impression that the process is currently managed with a light hand. If the Deputy [Secretary of Defense] has not taken control of it, and is not managing it so that the sequencing occurs, this will inevitably create problems."[6]

考量到眞實世界事件的壓力、計畫執行的不確定性、以及國會立法和撥款週期的動態變化，無可否認地，導正PPB制度各階段順序的確是困難的。是以，諸如高階管理階層爲突發意外軍事行動所分心；明明是低風險的現代化計畫意外地淪爲科技挑戰下的犧牲品—或者相反地高風險計畫卻碰巧成功（但極不可能）；以及國會可能重新調配財源或以其他方式調整預期的國防預算上限等情事均可能發生。上述任一事件均可能造成重新面臨和過去決策、建案和預算優先順序一樣地冗長艱辛時段；然而，許多實例中事件之順序反覆無常，因爲必然事件發生的時間表並不清楚，即便清楚後又未予以貫徹執行。

Sequencing the phases of PPBS is admittedly difficult given the pressures of real world events, the uncertainty of program performance, and the dynamics of the congressional legislative and appropriations cycles. There is always the possibility that the senior leadership will become distracted by an unexpected contingency operation, that a modernization program that was seen as "low-risk" suddenly falls victim to technological challenges - or conversely （but much less likely）, that one seen as "high-risk" meets unanticipated success, or that Congress will significantly redirect funds or otherwise adjust the expected defense top-line. Any of these events can cause a lengthy, difficult revisitation of past decisions and established program and budget priorities. Nonetheless, in many instances the sequence of events becomes skewed because timetables for necessary events are not well understood, and when well understood, are not well enforced.

近來，有關計劃階段過渡至預算階段一直是項特別艱難的問題。重大計畫性議題之提出遲緩，提出後通常又遲遲未予解決；這種情況導致

原本以分析爲導向環境之計劃階段所必須作的決策滑落到大都以政治爲導向預算階段爲之。除此之外，預算階段必須按規定期程於二月上旬提報年度聯邦預算，時間壓力升高迫使高階主管倉促或者延遲下達決策。

This has been, in the recent past, a particularly difficult problem regarding the transition from the program phase to the budget phase. Major programmatic issues are slow to be raised, and when raised are often slower in being settled. This results in the slippage of needed decisions from the analytically oriented environment of the programming phase into the relatively more politically oriented budget phase. In addition, given that the budget phase is chronologically bounded by the requirement to submit a federal budget annually in early February, time pressures begin to mount forcing senior leaders to make decisions hurriedly, or to defer them.

以從事PPB作業人員觀點而言，PPB制度日程表總是排滿工作項目。由於國防計畫規模過於龐大，議題數量繁多，因此在某種程度上這種情況是無可避免的；但就更深層意涵而言，期程表項目如此密集係因每年必須努力執行PPB制度所有階段作業，也因爲在提出議題與規範時限上缺乏紀律使然。明顯地，國防部資源管理團隊無法掌控那些充斥在流程管理的許多因素，但是對「掌控可控制」之因素則能表現稱職。有個方法可以改善這種情況，如同許多人早先主張的，就是將PPB制度轉換成二年期預算週期。

From the perspective of those who have worked in it, the PPBS calendar is always heavily weighed with events. To some degree this is unavoidable as the scale of the defense program is so large, and the volume of issues so numerous. But to a more significant degree, the schedule is heavily compacted because of the effort required to perform all phases of the PPBS annually, and because of a lack of discipline in raising issues and enforcing time lines. Clearly, the Pentagon resource management team cannot control many of the factors that impact on the management of the process, but they can do a better job of "controlling the controllables." One approach for facilitating this effort would be to shift, as many have long advocated, to a two-year budgeting and PPBS cycle.

二、採用二年週期

b. Adopting a Two-Year Cycle

一個明顯能讓PPB制度作業期程較不雜亂的方法，就是延長完成最終產品—國防預算—所需要的時間。這些年來，許多檢視國防管理流程的團體，其中最顯著者當屬1986年帕克委員會（the Packard Commission（報告，都強烈建議採用二年期預算流程。自1987年起，國防部即同時呈報1988與1989年預算，企圖朝此方向改變；主要反對聲浪來自國會一直拒絕採用二年期撥款流

程，但從在國會山莊和其他地方的最近活動顯示對這項必要調整的訴求有增加的趨勢。

One obvious approach to make the PPBS schedule less frantic is to extend the time required to complete the eventual product, the defense budget. Over the years, numerous groups reviewing the defense management process, the most prominent being the report of the Packard Commission in 1986, have strongly recommended the adoption of a biennial budgeting process. Beginning in 1987, when it simultaneously submitted a budget for 1988 and 1989, the Pentagon has attempted to move in this direction. The major inhibition has been the refusal of the Congress to adopt a two-year appropriation process. But recent activity on the Hill and elsewhere suggests there may be growing appeal to this necessary adjustment.

副總統高爾1993年國家績效審查和國會改組聯合委員會兩者都建議二年期撥款與預算期程。近來，參議院預算委員會主席彼特．多米尼西（Pete Dominici 新墨西哥州共和黨員）也留意到國會將近花費了大半的時間在年度預算程序上，而提出一個二年期的預算撥款法。這個舉動贏得了兩黨的支持，而且聚集了參議院32位共同發起人；眾議院決議主張迅速對二年期預算採取行動，則獲致240位以上的支持者。[7]

Vice President Gore's 1993 National Performance Review and the Joint Committee on the Reorganization of Congress have both recommended a biennial appropriations and budget cycle. Recently, Senate Budget Committee Chairman, Senator Pete Dominici （R-NM）, noting that Congress spends nearly half of its time on the annual budget process, introduced a biennial Budget Appropriations Act. This action won bipartisan support and gathered 32 Senate co-sponsors. A House resolution advocating quick action on biennial budgeting attracted over 240 sponsors.[8]

過去，40州以上採用二年期預算流程；現今採用二年期預算流程大多爲小州，計有21州，大州採用二年期預算流程有德克薩斯州和俄亥俄州。印地安納州於1970年決定採用二年期預算，該州參議院臨時議長認爲此舉爲「我們所做最好的決定之一」。[9] 二年期流程給予立法者機會討論非預算議題，更審愼考量新提案，從事更好規劃及縮短立法會期。[10] 未預見之議題則於非預算編製年度藉由通過追加預算來處理。

In the past, over forty states had a biennial budgeting process. Today the number with this practice is twenty-one, most of them the smaller states. Among the larger states, Texas and Ohio have two-year budgets. In Indiana, which adopted a biennial budget in 1970, its Senate President Pro Tempore considers it to be, "one of the best decisions we made."[11] The biennial process allows legislators the opportunity to discuss non-budgetary issues, to more carefully consider new initiatives,

to conduct "better planning," and to shorten the legislative session.[12] Unforeseen issues are dealt with in the off-budget years by approving supplemental budgets.

二年期預算流程主要優點在於它給予州政府官員更多時間去深思規劃和更嚴謹的分析預算執行。維吉尼亞州採用二年期預算流程，其運作詳如圖6：

The major advantage of the biennial process is that it allows state officials more time for thoughtful planning and more careful analysis of budget execution. Virginia has a biennial budget process that works as shown in Figure 6：

上圖例說明維吉尼亞州未來四年預算週期流程運作之情況。2000年7月該州會計年度開始，爲2000-2002年二年期預算開始生效之起點，並至20002年6月底結束。由執行機構人員根據新的資訊與執行成效所做之預算修正，將呈報州立法機關，並將於2001年第一季立法短會期中提出。維吉尼亞州預算執行流程對預算修正僅限於緊急性質之必要改變；正在進行之預算作業如上圖淡藍色部分所顯示。

This example illustrates how the Virginia process will work for the next four years. In July 2000, the beginning of the state fiscal year, the 2000-2002 biennial budget takes effect and runs through the end of June 2002. Amendments to the budget, based on new information and agency performance, are developed by the staffs of the Executive agencies, proposed to the state legislature, and will be addressed during the legislative "short session" in early 2001. The Virginia executive budget process restricts budget amendments to only necessary changes, generally changes of an emergency nature. This on-going budget activity is show on the chart in light blue.

在這同時，幕僚人員檢視績效評估、評量預算執行、評估新方案及準備下一個二年期預算之策略計畫，該項工作成果將於5月提呈州長及其內閣。奉核後之策略計畫將轉化成另一新的二年期預算需求於2002年初期送交立法機關，立法機關審核通過後，2002-2004年二年期預算將於2002年7月1日生效，計畫流程也將周而復始；這些作業如上圖淡黃色部分所顯示。

At the same time, the staffs are reviewing performance measures, evaluating budget execution, assessing new initiatives, and preparing the strategic plan for the next biennial budget. The results of this work will be presented to the Governor and his cabinet in May. After approval, the plan is translated into a new biennial budget request that will be submitted to the legislature in early 2002. After passage by the legislature, the 2002-2004 biennial budget will take effect on July 1, 2002, and the planning process will begin again. These activities are shown on the chart in light yellow.

這套方法之主要優點在於它容許州政府各機關，在進入預算細節之前，有將近一年的時間去

研擬計畫、評估過去績效及精進評量標準，並向州長提報。這套方法對實施一年期（預算）流程的聯邦政府，包括國防部在內，因一年期預算編製與冗長國會會期所形成之壓力而排擠實質細部規劃所做之努力，提供有意義的對照。

The major advantage of this approach is that it allows the state agencies reporting to the Governor nearly a year to develop plans, assess past performance, and refine metrics before getting into budget detail. This approach offers a significant contrast to the annual process of the federal government, including the Department of Defense, where the pressures of annual budgeting and lengthy congressional sessions tend to crowd out efforts at substantial detailed planning.

雖然近來提送國會的法案對改變一年期預算流程的呼聲塵囂日上，但預期國會近期改變的希望渺茫；儘管如此，國防部內部能做的更多：廢除用以更新「國防計畫指導」的一年規劃週期，並以二年週期取而代之，運用該段時間從事計畫分析、研發計畫性評量、評估預算執行及準備「非目標年度」預算有關重大議題或反映現實必要之調整，諸如通貨膨漲與外匯匯率變動等。

Although recent bills introduced in Congress suggest growing momentum towards shifting away from the annual budget process, the prospects of a near-term change by Congress are small. Nonetheless, the Pentagon internally can do much to shift to a two-year cycle by eliminating its annual planning cycle that updates the DPG, using that time for conducting program analysis and developing programmatic metrics, evaluating budget execution, and preparing an "off-year" budget that only addresses major issues or responds to "fact-of-life" changes, such as inflation and exchange rate fluctuations.

肆、修改計量與評量

IV、Accounting and Metric Changes

有句受到財務經理認同的話：「你無法管理你所無法衡量的東西。」[13] 而且特別是在民營部門，當執行長薪資明確地受到某些特定評量約制時，經驗上顯示那些評量在管理上會受到優先重視。因此，由策略規劃參謀們所做的具體作爲則將致力於與進行中之計畫與策略有關的目標確認，同時擬定特定測量方法（一般稱之爲「評量」）用以顯示目標之達成度。聯邦政府裡是類努力在1993年「政府績效成果法」中有所規範。公、民營部門一項明顯的趨勢即在發展一套詳盡的目標確認與評量方法作爲績效評估之依據。

There is a saying favored by financial managers that, "You can't manage what you can't measure."[14] Furthermore, particularly in the private sector, when executive compensation is explicitly tied to specific measures, experience

shows that those measures receive priority attention of management. Accordingly, a substantial effort undertaken by strategic planning staffs is dedicated to identifying objectives related to the plans and strategies being pursued, and to developing specific measures（commonly known as "metrics"）that indicate the degree to which the objectives are being achieved. In the federal government such an effort is required by the Government Performance and Results Act of 1993. A clear trend in both the public and private sector is to develop an elaborate set of such objectives and the measures to assess them.

維吉尼亞州至今已發展出一套涵蓋其主要職能詳盡的績效評估方法；其中針對有關諸如國民兵部隊對突發事件反應時間、每百萬人歸因於火災死亡人數等項目所建立的目標與績效報告。最近的評估項目顯示，1997年是個多事之年，因爲在當年度，相較於每百萬人死亡率6人目標值，死亡率竟高達14.4人。[15]

Virginia has developed a detailed set of measures of performance covering all its major functions. There is a goal established, and performance reported, for items such as response time to emergency situations by the National Guard, and citizen deaths per million attributable to fires. In the latter category, 1997 was a disturbing year as the death rate was 14.4 per million compared to an established goal of 6 per million.[16]

發展有效的評量標準用以評估績效（亦即「產出」）對國防部而言仍將是項持續性的挑戰。不像民營部門，公司年度報告可顯示眾所認同及接受的資產與損益報表—亦即年度績效，公營部門則無此通用評量標準供作重大決策之基礎。國防部部長的年度報告中附帶有預算資料，但這些資料雖能清楚地提供投入面向情形，卻無法相對地顯示產出與績效成果。

Developing useful metrics for evaluating performance, and therefore "output," continues to be a challenge in the Pentagon. Unlike the private sector where the corporate annual reports display widely understood and accepted asset and income reports, which reflect annual performance, the public sector has no such universal metrics that serve as the basis for major decisions. The Secretary of Defense's annual report is complete with budget data, but this data provides a much clearer picture on inputs rather than outputs and performance.

考量到國防部從事活動範圍之廣，欲提出有效的評估方法確實是項重大挑戰。相較於一支航空母艦戰鬥群和一個陸軍師，我們如何評估一支戰鬥機聯隊的產出？即使某些領域，如戰備整備，較適合作目標評估，國防部在建立軍種間一致的績效評估方法仍是困難重重。欲使PPB制度在資源分配與全般國防計畫整合發揮如期功能，必須如前所述訂定特定的目標與措施，同時必須要有績效評估方法藉以評估目標達成度。

Given the wide range of activities the Pentagon is engaged in, producing useful measures is a major

challenge. How does one measure the output of a fighter wing, compared to that of a carrier battle group, compared to that of an Army division? Even in areas more amenable to objective measure, such as readiness, the Pentagon has great difficulty establishing uniform measures of performance across services. For PPBS to function well in allocating resources and integrating the overall defense program, it has to have specific goals and objectives as described above, and it must have performance measures by which it measure goal satisfaction.

其他公營部門各項活動則致力於開發是類評量標準，如前述馬里蘭州的「成果管理」計畫和維吉尼亞州的「績效預算」流程，兩者都極爲依賴評量來指導計畫和預算發展。在許多方面，州和地方層級的問題較爲分離，其評量發展相較於國防部所面臨的挑戰則較不複雜。測量改善過道路的英里數與交通死亡事故遞減的關聯性較爲簡單；以標準化測驗評量學校績效則較爲複雜且多有爭議，但相較於許多國防活動仍較具可計量性。高速公路管理、公共安全和教育是持續性的活動，需要每日成果和能蒐集的趨勢資料。用以評估軍事力量的基本標準—區域衝突和戰場勝利—幸好確有發生，但是少之又少。評估你有多少以及到底多少才算「足夠」是個難題；然而，它卻是一項必要的嘗試。

Other public sector activities invest heavily in developing such measures, as seen in Maryland's "Managing for Results" program and Virginia's "Performance Budgeting" process. Both rely heavily on metrics to guide program and budget development. In many ways, the development of measures at the states and local level, where issues tend to be more discrete, is less complex than the challenge faced by the Defense Department. Measuring the miles of improved road and correlating it to a decrease in traffic fatalities is rather straightforward. Measuring school performance with standardized tests is more complex, and controversial, but still more quantifiable than many defense activities. Highway management, public safety, and education are on-going activities requiring daily outputs and collectable trend data. Regional conflict and success on the battlefield, the ultimate standard by which military forces are measured, occurs - thankfully - infrequently. Measuring how much you have, and how much is really "enough," is a difficult task. Nevertheless, it is one that must be attempted.

一、「投資報酬率」評估法

a. "Return on Investment" Metrics

雖然將財務績效評估方法運用在公共財供給上是有難度，不過國防部或許可考慮針對其二項最重大，但最具競爭性的活動-戰備整備和投資-

開發是類評估方法。

Although applying financial performance measures to the provision of public goods is difficult, the Pentagon might consider developing such measures regarding readiness and investment, its two most significant, yet competing, activities.

最近戰備整備浮現成了重大議題。眾所周知的二個陸軍師報告有關1999年末期低戰備整備率情形，聲稱主要兵力量要素尚未完成戰備整備，無法執行其主要戰時功能。這是一個非常複雜的問題，國防部也爲之困擾多年。解決之道是要更清楚了解我們兵力必須準備好達成何事，這問題又回到基本「國防計畫指導」領域與其反射在某個資源分配機制如「五年國防計畫」上。各軍種，由部長辦公室和聯參引導，必須投入額外努力開發適用於全軍戰備整備的評估方法，並能更精確掌控資源投資的產出程度。

Readiness has recently emerged as a major issue. Assertions have been made that major force elements, most notably the two Army divisions reporting low readiness ratings in late 1999, are not prepared to perform their major wartime functions. This is a very complex issue, and one the department has wrestled with for several years. Resolving it requires some better understanding of what our forces are required to be ready to accomplish, an issue returning to fundamental DPG direction and its reflection in some resource allocation mechanism such as the FYDP. The military services, led by OSD and the Joint Staff, need to invest some additional effort in developing measures for readiness that are common to all services and better capture the degree of output from resource investments.

就投資而言，考量將企業界普遍用來模擬投資報酬的評估方法作爲評量或許有所助益。尤其當與武器系統研發期程有所關聯時特別有用。老舊武器系統汰換之武獲過程中，或許採購費用與總作業維持費最能代表計畫研發後之「報酬」，計畫研發期間愈長，其報酬價值變得愈低。以目前作業術語而言，其意涵爲：長期研發的系統有著建置使用時其零件已變得過時，以及其實用性因戰略需求改變而受到質疑之風險。

Regarding investment, it might be useful to consider metrics that mimic return on investment metrics commonly used in the business world. This might be particularly useful when related to weapons system development times. The longer a program takes in development before it begins to provide a "return," perhaps best represented in the defense acquisition process by procurement expenditures and overall O&M savings as older systems are retired, the less valuable it becomes. In current operational terms, this means that a system that requires lengthy development runs the risk of having its components become obsolete by the time it is fielded, and having its utility questioned as strategic requirements change.

目前有個替代計算投資報酬率的模型，顯示

目前許多被運用的系統均有2%的投資報酬。這情形不太可能爲企業所接受。當然，就企業而言，假如該項功能有迫切需要的理由，即使該項評估方法或許不相干，該項計畫也必須持續進行；但這也可能顯示其應得到較高投資優先權，或者是生產階段應予調整，以期有較佳的投資報酬。民營部門的決策通常都是基於是類考量而制定，至於那些具有民營部門經驗而在國防部決策階層位居要職者，假如這項準則與其過去經驗能有較多的謀合，則其在面對下達決策時可能更爲精確。

One current model using a surrogate computation for rates of return suggests that many systems being pursued today will return 2% on their investment. This would likely be unacceptable in business. Of course, as in business, if there are pressing reasons why such a capability is needed, then such a measure might be irrelevant and the program should press forward. But, this might also suggest those that merit higher investment priority, or a changed production phasing so that the "return" is better. Decisions are commonly made in the private sector based on such considerations, and as those with private sector experience assume senior leadership positions in the Pentagon decisions might be crisper if the basis for them was more, rather than less, common with their past experiences.

二、資本預算與機會成本

b. Capital Budgeting and Opportunity Costs

許多熟稔預算流程的人至今都主張：資本預算是一項技術，能充分辨認、記錄資本與作業成本，因此能激發出較佳的決策。1997年，克林頓總統設立了「資本預算研究委員會」，由凱瑟琳．布朗和喬恩．科爾辛（Kathleen Brown and Jon Corzine）共同擔任主席。

Capital Budgeting has been advocated by many familiar with the budgeting process as a technique that would more fully identify and capture capital as well as operating costs, and thereby encourage better decision-making. In 1997, President Clinton established a Commission to study Capital Budgeting co-chaired by Kathleen Brown and Jon Corzine.

1999年2月該委員會向總統報告：委員會不主張更換成資本預算，理由爲「大多數委員此時並不支持採取一個會將不同的預算上限強加於資本支出之上的預算程序。」[17] 然而，委員會也指出現行預算程序「對預算決策的長期結果關切不足，尤其資本支出在各項方案間未予有效地分配。」[18] 委員會做出了幾項有用的建議：

The commission reported it's recommendations to the President in February 1999. It did not advocate a shift to capital budgeting noting that, "a majority of the members of the commission does not support, at this time, adopting a budget procedure

that would impose a separate cap on capital spending."[19] The commission did note, however, that: "Insufficient attention is paid to the long-run consequences of budget decisions. Capital spending in particular is inefficiently allocated among projects [all emphasis original]."[20] The commission made several recommendations that it felt would be useful for:

改進預算流程每一構成要素：排定目前與未來優先順序，在當年度下達及提報預算決策，並加以評估，以作爲爾後年度改進之用。[21]

Improving each of the component parts of the budget process: setting priorities currently and for the long run, making budget decisions in the current year, reporting on those decisions, and subsequently evaluating them in order to make improvements in future years [all emphasis original]."[22]

資本預算是用來徹底說明資本財支出水準的一套方法，資本財一般係指具長壽期的財貨。在公、民營部門，這種預算方法通常是必要的，藉以充分說明經由借貸或債券發行之資金籌措方案所衍生的費用，以及掌控因股本老舊與更新所引發之貶值影響。由於這些因素，大多數私人企業、州及地方政府考慮將資本支出與營業費用分開。雖然當爲國防基礎建設（如軍眷宿舍family housing）籌措資金下達決策時，也經常引用折舊率和名義替換率成本，聯邦政府卻從未採用是類方法。23

Capital budgeting is an approach intended to take thorough account of spending levels of capital goods, generally identified as those goods with long service lives. Such a budgetary approach is often necessary, in both the public and private sectors, to fully account for expenses that may result from financing of projects, through borrowing or the issuance of bonds, and to capture the effects of depreciation as capital stocks wear out and require replacement. Because of such factors, most private and many state and local governments consider capital spending separately from operating expenses. The federal government has never used such a practice, although depreciation rates and nominal replacement rate costs are frequently cited when decisions are being made on funding for DoD infrastructure, such as family housing.[24]

採用是類方法的一項挑戰在於精確認定何者爲資本財。雖然「資本預算研究委員會」認定公路適合歸類爲資本財項目，但採行資本預算的維吉尼亞州卻不將其視爲資本財。儘管其所費不貲又頗受重視，維吉尼亞州仍將公路編列於作業維持預算內。[25] 維吉尼亞州資本預算主要侷限於設備上。

A challenge in adopting such an approach is determining precisely what is a capital good. Although the President's Commission referenced highways as an item likely to be covered under a capital budgeting approach, the State of Virginia, which has a capital budget, does not include its

highways as a capital item. Despite their obvious expense, and political visibility, Virginia budgets for its highways under its operating budget.[26] The Virginia capital budget is largely confined to facilities.

有好幾個理由可以說明何以政府機構喜歡將其方案和活動列入作業維持預算而不列入資本預算。作業維持預算科目屬經常門收支，且每年或每兩年編列。因爲是類預算相當固定且具週期性，辯護其不能刪減的理由也十分容易。相反地，資本預算科目則必須予以長期判斷，同時必須針對預期未來價值、殘值和重置成本提供詳細的評估；再者，如果預算必須藉籌措資金獲得，預算流程中則必須經過協商折衝，而這協商折衝通常雜夾著困難和爭議的政治抉擇。

There are several reasons why government agencies would prefer to have their projects and activities considered in operating rather than capital budgets. Items in the operating budget tend to be paid from general revenues and are funded annually, or during the biennial process if one is used. Since such funding is rather routine and cyclical, arguing for its perpetuation is relatively easier. Items on the capital budget, by contrast, must be judged over a longer period of time and often require more detailed justification on expected future value, salvage value, and replacement costs. Furthermore, if funds must be raised through financing, this inserts a major step in the process that often is associated with difficult and contentious political choices.

「資本預算研究委員會」證實，聯邦政府主要資本獲得國防部就占了70％以上。[27] 由於聯邦政府如此龐大的資本支出及改變國防股本結構之資金嚴重不足而遭致許多批評，國防部必須更精實規劃其資本支出。例如，一份由新墨西哥州共和黨參議員多米尼西（Pete Domenici），亦即參議院預算委員會主席，要求國會預算局（CBO）於2000年9月發表的研究報告—「國防預算編製：當代軍力維持（Budgeting for Defense: Maintaining Today's Force）」中指出：每年國防採購預算不足300～400億美元。[28] 然而，值得注意的是該項分析僅以汰換老舊裝備爲基本考量，並非以執行軍事事務革命或未來衝突變化本質之變革需求潛在影響爲考量。

As the Commission on Capital Budgeting identified, the Defense Department accounts for over 70% of major federal capital acquisitions.29 With such a large proportion of federal capital expenditures, and with so many criticisms that efforts to re-capitalize the defense capital stock are substantially underfunded, the Pentagon needs to better plan its capital expenditures. For example, the Congressional Budget Office's （CBO） study, "Budgeting for Defense: Maintaining Today's Force," requested by Sen. Pete Domenici （R-N. M.）, chairman of the Senate Budget Committee, and released in September 2000, states that defense

procurement is underfunded by $30-40 billion annually.30 However, it is worth noting that this analysis was based on replacing aging equipment in kind, without consideration of the potential impact of the changing needs as elements of the RMA are implemented, or as the nature of future conflict changes.

就某種意義而言，國防部的資本預算係以研發、採購與工程等撥款型態組成。其挑戰在於將這些活動切割成各類撥款，其後復將這些撥款核配給各軍種，致使現代化的總成本難以確認。資本預算要求所確認的資金應足供發展、獲得與維持所提出的軍事能力。例如，假如認眞關切庫存飛機整體機齡，同時也有一套評量方法，規定在某些特定船艦平臺之平均機齡不得超過15年，則購置基本維持量飛機之長期資金必須予以確認，並同步考量第二代飛機汰換而進行研發。依此方式，老舊飛機評量基準則可代替折舊評量基準，並可同時提醒決策者留意其他額外投資的數量與時間期程。這也有助於建立決策技巧，相當符合私營部門決策時的情況。殷切期盼，這能讓資深文職決策者，特別是那些具企業背景的人，充分瞭解資源分配決策之全部意涵。

In a sense, the Pentagon has a capital budget in the guise of its research and development, procurement, and construction appropriations. The challenge is that segmenting these activities into appropriations, and then segmenting them further across services, makes it difficult to ascertain the full cost of modernization. A capital budget would require that funding be identified that would develop, acquire, and sustain the capabilities being addressed. For example, if there is a serious concern about the overall aging of the aircraft inventory, and if there is an established metric that average aircraft age should not exceed fifteen years in specific platforms, then long-term funding would have to be identified that purchased sustaining aircraft and was synchronized with the next generation replacement under development. In this way, the aging aircraft measure would serve as a surrogate measure of depreciation and would alert decision-makers to the quantities and time-frames for additional investments. It would also have the merit of establishing a decision-making technique that is relatively more consistent with those seen in the private sector. Hopefully, this would allow senior, civilian decision makers, particularly those with a business background, to better understand the full implications of resource allocation decisions.

當然並非所有的國防獲得和投資計畫都能輕而易舉地適用資本預算方法。有些項目具有明顯的折舊功能；有些項目可接受替代式評量；有些項目儘管評量深具意義亦無法接受。將舊機換裝成新機，就那些大肆改裝並配以先進電子儀器之主要系統而言，光是決定機齡本身即是個爭議的話題。但一項流程若能解決窒礙因素，並能從確認現代化或轉型的眞實成本，整合出較佳的主要

獲得決策，這個流程便有所助益的。

Certainly not all defense acquisition and investment programs lend themselves to an easy application of capital budgeting techniques. Some items may have a clear depreciation function, some may allow a surrogate measure, and some may allow no such measure that is either meaningful or useful. For major systems, those that have been extensively modified and enhanced with advanced electronics, essentially making them a new aircraft, determining age itself becomes a matter of contention. But a process that accounts for these difficulties, and better integrates major acquisition decisions in a manner identifying the true cost of either modernization or transformation, would be useful.

註　釋

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3. Notes from Colonel M. Thomas Davis, in 1993-1994 the Director of the Manpower and Force Program Analysis Division in the Office of the Chief of Staff of the Army.
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5. BENS interview 100499.
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7. See Aerospace Daily, "Budget Committee Chairman Pushes for Biennial Process," 7 February 2000, p. 196.
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9. David Baumann, "Biennial Budgeting Effort Gains Momentum," GovExec.Com, Daily Briefing, 28 February 2000, located at www.govexec.com/dailyfed/0200/022800b3.htm.
10. Ibid., p. 3.
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12. Ibid., p. 3.
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15. See Commonwealth of Virginia Performance Measures Report, 3d Quarter FY1999, Virginia Department of

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18.Ibid.

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20.Ibid.

21.Ibid.

22.Ibid.

23.Ibid., p. 3.

24.Ibid., p. 3.

25.BENS interview 070699.

26.BENS interview 070699.

27.See Capital Budgeting Commission, Table 2, p. 11.

28.See "Keeping Today's Military Power Requires $51 Billion More Per Year," Defense News, 14 September 2000.

29.See Capital Budgeting Commission, Table 2, p. 11.

30.See "Keeping Today's Military Power Requires $51 Billion More Per Year," Defense News, 14 September 2000.

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