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The Claxton Papers

The Queen's University Defence Management Studies Program, established with the support of the Canadian Department of National Defence (DND), is intended to engage the interest and support of scholars, members of the Canadian Forces, public servants, and participants in the defence industry in the examination and teaching of the management of national defence policy and the Canadian Armed Forces. The program has been carefully designed to focus on the development of the theories, concepts, and skills required to manage and make decisions within the Canadian defence establishment.

The Chair of the Defence Management Studies Program is located within the School of Policy Studies and is built on Queen's University's strengths in the fields of public policy and administration, strategic studies, management, and law. The program offers, among other aspects, an integrated package of teaching, research, and conferences, all of which are designed to build expertise in the field and to contribute to wider debates within the defence community. An important part of this initiative is to build strong links to DND, the Canadian Forces, industry, other universities, and non-governmental organizations in Canada and abroad.

This series of studies, reports, and opinions on defence management in Canada is named for Brooke Claxton, Minister of National Defence from 1946 to 1954. Brooke Claxton was the first post–Second World War defence minister and was largely responsible for founding the structure, procedures, and strategies that built Canada's modern armed forces. As defence minister, Claxton unified the separate service ministries into the Department of National Defence; revamped the *National Defence Act*; established the office of Chairman of the Chiefs of

Staff Committee, the first step toward a single Chief of Defence Staff; organized the Defence Research Board; and led defence policy through the great defence rebuilding program of the 1950s, the Korean War, the formation of NATO, and the deployment of forces overseas in peacetime. Claxton was unique in Canadian defence politics: he was active, inventive, competent, and wise.

The authors would like to thank the large number of military and civilian staff at National Defence Headquarters who supported and encouraged this project by providing detailed and helpful comments on various drafts of this document. The academic peer review undertaken by Andrew Graham provided an excellent benchmark in relating developments in defence to the rest of the public sector. In addition, the authors wish to thank Angela Wingfield for her thorough and professional job as copyeditor, as well as Mark Howes and Valerie Jarus for their continued, accomplished efforts to change the work of "mere scholars" into an attractive, readable publication. We all thank Heather Salsbury for her unflagging good spirits and willing support to the Chair of the Defence Management Studies Program. The Chair acknowledges the support given to the Defence Management Studies Program at Queen's University by the Department of National Defence and Breakout Educational Network, Toronto, Canada.

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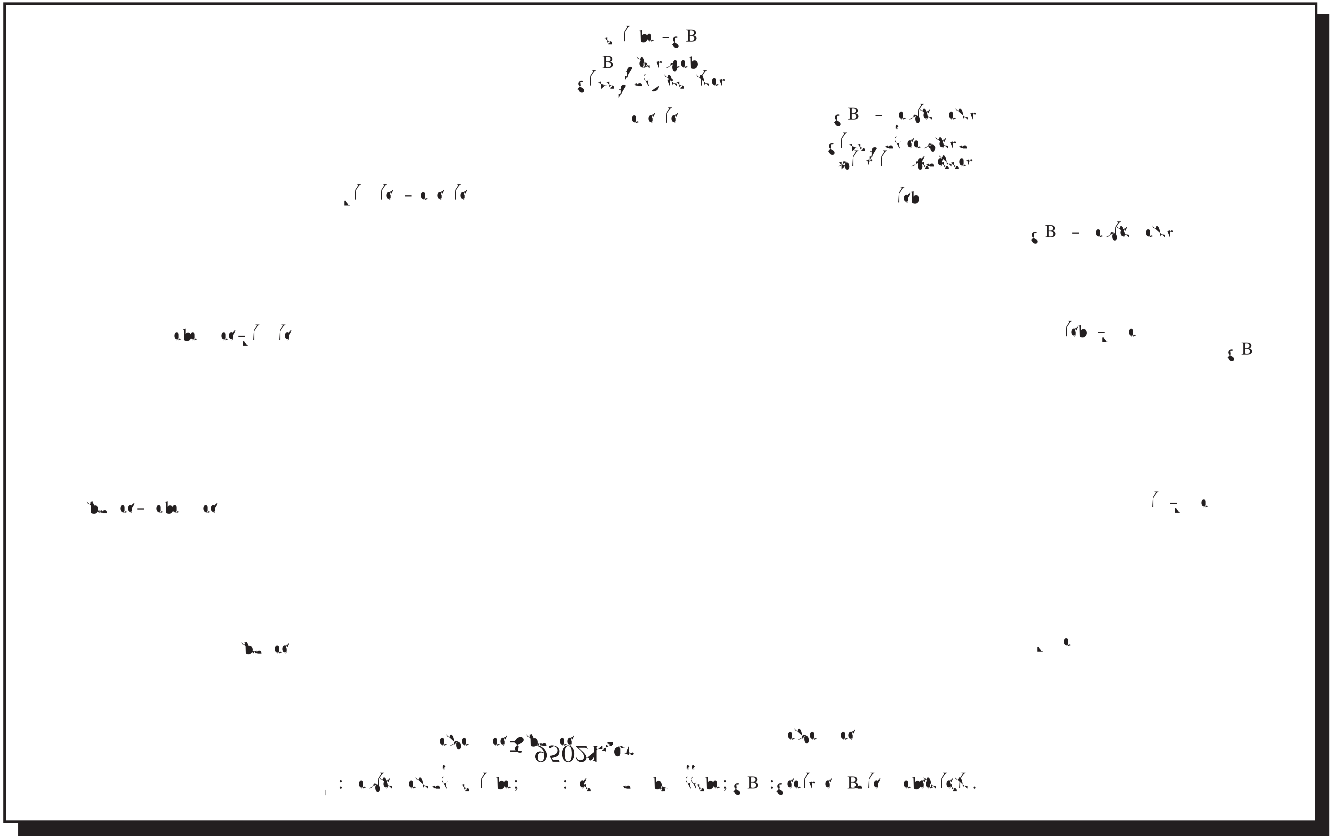

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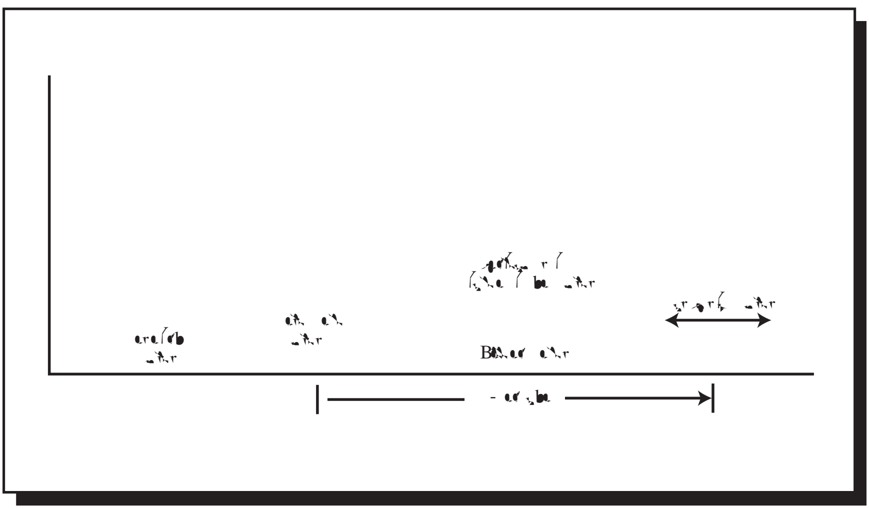

CHAPTER 2

Acc al Acco n ing

THE BASICS OF ACCRUAL ACCOUNTING

> In the 2003 budget, the Government implemented its commitment to present its financial statements on a full accrual accounting basis. Previously, the Government's financial statements were prepared under modified accrual accounting. Full accrual accounting provides a more comprehensive reporting of assets and liabilities and a more transparent picture of the Government's financial position. Under full accrual, the budgetary balance is now more reflective of current economic developments, rather than being influenced by prior-year developments. It is the accounting standard recommended for senior levels of government in Canada by the Public Sector Accounting Board of the Canadian Institute of Chartered Accountants and has been strongly recommended by the Auditor General of Canada and the House of Commons Standing Committee on Public Accounts.[29]

In 2003, the Government of Canada completed a multi-year accounting methodology transition that began with a cash-based system and ended with an accrual-based system. The change is significant, yet the implications of it are generally not well understood. This section will first define cash-based accounting principles and then define accrual accounting principles. A conceptual framework for the transition process from cash-based accounting principles to accrual accounting principles will then be reviewed as a lead in to a discussion of accrual accounting in the federal public sector. The section will conclude with the impact on government operations resulting from the move to accrual accounting.

Cash-Based Accounting Principles

National governments in Canada have historically accounted for transactions, including the procurement of capital assets, on a cash basis. The cash-based accounting method records economic events when revenue is actually received and when expenses are paid. Moreover, cash management supports the traditional notion of Parliament approving the annual supply of funds. In cash-based accounting, transactions that do not involve movements of cash are not included. From the perspective of the average citizen, cash-based accounting is easiest to understand owing to its relative simplicity. Furthermore, this system is simple to implement and manage, thereby assisting in the timeliness of reports. Cash-based accounting provides a good perspective on short-run macroeconomic effects, yet it can be argued that the Canadian public is already sufficiently aware of short-term economic issues.

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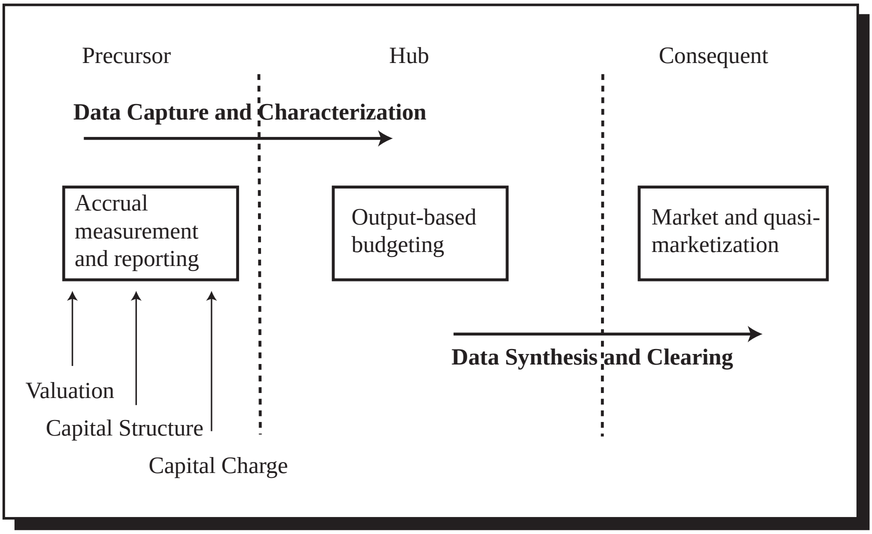
The main drawback of cash-based accounting is its limited scope. Specifically, this basis of accounting focuses only on cash flows, which may have significant long-term effects. Accountability in terms of managing assets and liabilities under a cash-based system has limitations. For example, with the purchase of a multi-billion-dollar weapon system, delivery of the system over a two-year period would drive cash expenditures significantly upwards for two years; however, in subsequent years when the weapon system is in use (which can be decades for defence equipment), the use of that asset will not be recognized. In addition, capital programs can take up to a decade to procure, with overall departmental work in progress accounting for several billion dollars at any given time. A cash-based accounting system does not account for future commitments or contingent liabilities, which is significant for defence organizations.

Defence planning requires a long-term focus that can extend up to thirty years. This intergenerational perspective is necessary in order to plan, fund and sequence a large number of high-value Army, Navy, Air Force and joint capital projects. Consequently, in these circumstances, cash-based accounting does not account for full costs. The cost of

decision by the government to adopt accrual accounting is an important shift toward greater use of private sector accounting practices (general accepted accounting principles). It should be noted, however, Department of National Defence focuses on fully integrating accrual accounting in departmental policies and procedures and includes procedures to manage new capital assets over their expected useful life, and developing audit processes and managing the myriad of issues that will arise until accrual accounting is well entrenched – and understood – within both the department and Canadian Forces. This is important because the real benefits accrue in the consequent phase, when decisions can be made based on the outputs generated from the hub phase on a sustained basis. Thus, the objective of this financial management reform process, in theory, is to enable a more strategic approach to public sector management. At this stage, decisions can be made on the appropriate mix of resources necessary in order to achieve desired outcomes.

Chart 6. The Public Financial Management Reform Environment



The Transition to Accrual Accounting in the Federal Public Sector

The Financial Information Strategy, which was initiated in 1989 and re-launched in 1995, "aims to modernize federal government accounting by bringing it in line with practices in the private sector and in other public sector jurisdictions. Among other things, its full implementation would see the costs of programs linked to results, giving government managers better financial information to use in making day-to-day decisions."[39] Treasury Board approved the strategy in 1995 as an initiative to improve government decision making and accountability, as well as government performance, through the use of both financial and non-financial performance information. The intent of the Financial Information Strategy is to provide decision makers within government with the appropriate tools and information to make sound decisions. The initiative included the change in government accounting from cash to full accrual accounting, which was identified in the 1995 and 1996 Budgets as a government priority.

The federal government defines capital assets as generally including "any asset which has been acquired, constructed or developed with the intention of being used on a continuous basis and is not intended for sale in the ordinary course of business." [40] Capital assets also include betterments, which are expenditures relating to the alteration or modernization of an asset that appreciably prolongs the item's period of usefulness or improves its functionality or significantly reduces operating costs. Capital assets held by government departments as of 1 April 2001 had to be identified and valued by use of an appropriate cost base.[41] Where practical, this involved the use of historical costs, less the portion of the useful life of the asset that had already been consumed.

Accrual accounting was implemented in all federal government departments at the start of the 2001–02 fiscal year as a key pillar of the Financial Information Strategy,[42] and the process was completed with

28 October 2004, where she highlighted the difficulty in accounting for Defence inventory "with systems that were not designed to support accrual accounting."[43] The transition to accrual accounting in the Department of National Defence required a considerable investment in personnel and financial resources in order to evaluate existing assets and develop applicable procedures and practices.[44]

The Impact of the Transition to Accrual Accounting in the Federal Public Sector

The purpose of accrual accounting as the basis of accounts in the private sector differs from that of the public sector. Within the private sector, the accrual basis of accounts is used to provide a more appropriate match between costs and revenues in the preparation of financial statements. Although corporations focus on cash flows as an important internal management tool, shareholders and suppliers are focused on the financial status of the company as represented through profit or loss reporting. Conversely, in the public sector, governments use accrual accounting as the basis of accounts in order to determine the budgetary surplus or deficit more accurately.

From the perspective of the Government of Canada, the shift from cash-based accounting to accrual accounting, in general terms, has not changed the nature of budgetary decision making. What has changed, however, is the level and detail of information provided. In the case of the Department of National Defence, there are likely to be some short-term impacts because of the operational nature of the Canadian Forces activity. Specifically:

> [Accrual accounting] generates the ability for decision makers to take a longer-term focus. The information presented for the ownership interest, and in particular the balance sheet, raises issues such as the need to hold surplus assets, to invest, restructure or divest. Such decisions have a long-term impact and may in fact take more than one year to implement. Accrual accounting strengthens the information base for reaching those decisions.[45]

Indeed, the major advantages to this transition are viewed as improved resource allocation, strengthened accountability, enhanced transparency of overall resource costs, and a more comprehensive per-

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The introduction of accrual accounting into the public sector has been the subject of considerable debate.[47] One of the main arguments for accrual accounting is that accrual measures (as opposed to cash) provide "a more comprehensive indication of the total activity of Government and the long-term effects of current policy."[48] Indeed, this debate can be summarized from the perspective of New Zealand and Australia, which countries have been leaders in adopting accrual accounting in the public sector: essentially, "scholars have written positively of the reforms as a whole but have scrutinized the details of the reforms in practice."[49] In summary, implementation of accrual accounting in government is viewed as a positive step; however, the scope of change required by governments is considerable.

Although the decision to implement accrual accounting within the federal government has been the subject of much debate from a technical accounting perspective, much less has been written about how the change will affect managers within the public service. Indeed, in the long term, the effects of this change could outweigh the specific effect of the accounting change itself. The most important potential impact is that it will drive greater decentralization within the public service, involving changes in both responsibilities and management culture. With respect to responsibilities, in 2001 the Auditor General stated that under the Financial Information Strategy

> departments and agencies become accounting entities in their own right, taking greater responsibility for their accounting information and producing their own financial statements using accrual accounting. They can no longer rely on central agencies to oversee the reporting of accurate and complete financial results.[50]

Decentralization will occur through the greater interaction that is now necessary within the public service as a result of the Financial Information Strategy. Specifically, government managers (including line, financial and procurement managers) will need to work together more closely, particularly in decisions to acquire and use equipment or facilities. This should largely replace a detailed control culture, at the senior corporate (government) level, with a more strategic business-like focus.

Finally, accrual accounting will facilitate a transition to a more results-oriented public service, which since 2000 has endeavoured to "promote discipline, due diligence and value for money in the use of public funds."[51] The increased emphasis on value for money in the public sector will strengthen private sector financial management practices in the public sector.[52] This means knowing the cost of assets in use, having a clear understanding and measurement of results, and knowing the costs of the inputs to achieve those results. Full implementation of accrual accounting in government necessitates the adoption of accrual-based budgeting. The implications of the transition to accrual-based budgeting were the focus of the Standing Committee on Government Operations and Estimates in its December 2006 report entitled *Acc al B dge ing Commi ee on Go e nmen Ope a ion and E ima e* . The committee was of the opinion that accrual-based budgeting and appropriations at the departmental level

> may be a catalyst for wide-ranging reforms in government management. Adopting full accrual accounting could thus open new perspectives on investment decisions, accountability and the stewardship of government assets by
>
> - providing a context conducive to debates on maintaining, renewing, replacing and funding assets;
> - establishing a common basis of measurement to assess the value of assets;
> - providing a point of departure to evaluate the physical condition of infrastructures and other assets on a regular basis over the years;
> - providing a better idea of the costs related to the delivery of services to the public that require the use of real property or other assets.[53]

Despite the broad scope of the committee's report, it should be recognized that the Department of National Defence, Royal Canadian Mounted Police, and Public Works and Government Services Canada incur the majority of capital expenditures at the federal level. Consequently, the benefits of accrual budgeting described above are somewhat overstated, as they will only apply to a relatively small amount of funding in the vast majority of departments and agencies. Within the Department of National Defence specifically, decision making for major capital purchases will remain centrally controlled.[54] In addition, due to the high cost of those projects, they will continue to be under significant political influence.

ACCRUAL ACCOUNTING IN DEFENCE

This section will begin with a description of the implementation of accrual accounting in the Department of National Defence, followed by definitions of land, buildings and works as well as machinery and

The challenges faced by the Department of National Defence were significant.[57] In addition to the asset and inventory challenge, the sheer

motor vehicles, aeroplanes, tractors, road equipment, telecommunications and related equipment, laboratory and other scientific equipment, as an expense over time. The expense is referred to as amortization. The maximum amortization period is limited to forty years. The service life of the asset is generally measured in years, although for assets such as aircraft, flight hours may be a more suitable measure of service life. Table 4 lists the amortization periods for Department of National Defence tangible capital assets.[63] A tangible asset is an asset that has a physical form and includes machinery, buildings and land. The Department of National Defence records tangible capital assets that have an initial cost of at least $30,000 with a useful life greater than one year,

Table 4. Amortization of Department of National Defence's Tangible Capital Assets

A e Cla	*Amo i a ion Pe iod*
Buildings	10 to 40 years
Works	5 to 40 years
Machinery and equipment	3 to 30 years
Informatics hardware	3 to 30 years
Informatics software	2 to 12 years
Arms and weapons	3 to 30 years
Other equipment	5 to 30 years
Ships and boats	10 to 30 years
Aircraft	20 to 40 years
Non-military motor vehicles	2 to 30 years
Military vehicles	3 to 25 years
Other vehicles	4 to 25 years
Leasehold improvements	Lesser of useful life of the improvement

as well as capital leases, repairable assets, betterments, and leasehold improvements, at their acquisition cost.[64] For simplicity and accounting system limitations, the department values all tangible assets using the complete- or whole-asset principle rather than the more precise component approach. Under the whole-asset method a single estimate of useful life is applied when valuing large sophisticated military assets such as warships and aircraft that comprise several easily identifiable components with potentially different expected useful lives (for example, airframe, engines, and avionics in the case of aircraft).[65] Furthermore, the amortization of all tangible capital assets is done on a straight-line basis over the estimated useful life of the capital asset.

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The impact of defence capital procurement resulting from accrual accounting is as follows:

> Under accrual accounting, the acquisition of capital assets has no direct budgetary impact in the year in which the asset is acquired. Instead, the amortization of the asset over its useful life is recognized in the budgetary balance. The acquisition of capital assets does, however, directly affect non-budgetary transactions and financial source/requirements.[66]

To put it more succinctly, the use of cash to generate or acquire tangible assets or inventory items should not have budget implications under the current modified cash basis for budget appropriations. In the case of the Department of National Defence, starting in Budget 2005, the department was granted the flexibility to set aside a portion of its annual cash-based budget appropriation for recurring budgetary amortization expenditures. In effect, the Department of National Defence was granted the ability to use a portion of its cash-based budget to pay back (or reimburse) the government for “investment” (or non-budgetary) funds appropriated by Parliament to acquire new or replacement assets. The acquisition cost of the asset is then subsequently expensed (or amortized) on an annual basis over the useful life of the asset. This budgeting approach has been termed “accrual-based budgeting” within the department and will be discussed in more detail later.

Capitalization of Defence Assets

Capitalization of assets in Defence, as in other organizations, is essentially the process of entering all the costs incurred in making an asset operational into the general ledger or books of account. This process is then ongoing throughout the life of the asset.[67] Costs incurred to improve the service potential of a capital asset during its service life are known as "betterments" and are added to the unamortized value of the asset. Classification as betterment applies when there is a significant increase in the quality or quantity of physical output or performance, the operating costs are significantly lowered, or the useful life of the main asset is extended. Finally, capital assets are typically

Source Systems of Record for Defence Capital Assets

The Financial Managerial Accounting System is the financial system of record (general ledger) for the Department of National Defence. The source systems of record "are the Department's subsidiary ledgers where individual, detailed records are held for all capital assets and related capital asset transactions."[68] Table 5 lists the source systems of record for capital assets.

Table 5. Source Systems of Record for Department of National Defence Capital Assets

So ce S em	*Office of P ima In e e*	*A e on Reco d*
Material Acquisition and Support Information System	Assistant Deputy Minister (Materiel)	All capital equipment assets, leases and betterments greater than $30,000 in value (excluding inventory) except

While the above table lists a number of existing asset management systems, there are essentially two main tangible-asset management systems in the Department of National Defence. The first system is the Canadian Forces Supply System (CFSS), which was designed to record and track material acquisition and distribution. With the exception of ships, fitted parts, buildings, works, land and intangibles, this system contains all other levels and types of capital assets and inventories. Integrated with the Canadian Forces Supply System is the Material Acquisition and Support Information System (MASIS), which is still under development. A Chief of Review Services internal audit report in 2005 noted:

> There is subjective evidence that MASIS will significantly improve the efficiency and effectiveness of materiel planning, acquisition, maintenance and reporting. Departmental efforts to implement accrual accounting are also tied to MASIS implementation. However, the full benefits will not be achieved for several years and only after concerted effort to implement all aspects of the project – including data conversion, system interfaces, a deployed solution, automated data capture, establishing a performance baseline, and technical documentation management.[70]

The second system is Aladdin, which was designed to "categorize, structurally record, query and report upon pertinent realty and environmental information in support of departmental business output requirements."[71] The Realty Asset Accrual Accounting System extracts realty asset information from Aladdin to assist the Assistant Deputy Minister (Infrastructure and Environment) with the maintenance of the realty asset sub-ledger to the Financial and Managerial Accounting System. It should also be noted that those tangible assets and inventory items classified as secret (type, nature of use, and quantity not disclosed for reasons of national security) are exempted from being recorded and reported under the current accrual accounting regime. Chart 8 illustrates the Department of National Defence's accrual accounting systems environment, within which there remains a considerable amount of manual input to reconcile and generate the department's financial statements.

The process to account for the purchase of capital equipment in Defence under accrual accounting includes a number of steps. For major Crown projects, it starts with a submission to Cabinet requesting policy approval for the project. The memorandum to Cabinet includes an accrual accounting table illustrating future estimated investment cash

cash based. Within the federal estimates process, Department of National Defence expenditures continue to be recorded in the period in which they are incurred. The expenditures include such items as salaries, fuel and maintenance, and in this situation, cash equals accrual. In addition to the federal estimates process, departments and agencies are required to produce financial statements on an accrual-accounting basis. In terms of capital purchases valued at $30,000 and over per asset, expenditures are capitalized and recorded as an expense over the period in which amortization occurs. In this situation, cash does not equal accrual. The department is now in a period of transition, and although the Department of Finance has prepared the budget on an accrual basis since Budget 2003, the Assistant Deputy Minister (Material), capital project offices and the Chief of Program are using both a cash basis and an accrual basis for capital planning. In essence, a cash basis is still required for the legacy capital program, and an amortization view is necessary for capital programs announced in Budget 2005 and subsequent budgets – although this is presently done ad hoc by the Department of Finance and Treasury Board Secretariat on a project-by-project basis.

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In future, the assets of new capital projects will be essentially purchased using “investment cash.” Control by central agencies will be exercised by allocating a ceiling on how much the Department of National Defence can expense. The annual expense-ceiling total will consist of both cash expenses and amortization expenses. It should be noted

CHAPTER 3

Accrual Accounting in Practice

ACCRUAL BUDGETING IN DEFENCE

Prior to 2005 the federal government prepared and reported its annual budget using a modified cash basis of accounting; specifically, accrual accounting principles were used in the preparation of annual departmental financial statements, and the cash basis of accounting was used in the determination of budgetary appropriations. Commencing with Budget 2005, the federal government embarked, with much fanfare, on an ambitious program of sustained reinvestment in national defence. The 2005 Budget provided the Department of National Defence with $7 billion in new budgetary funding over the subsequent five years that was to support a notional $12.8 billion in additional cash expenditures by the Forces over that period. Not well communicated to or understood by the Canadian public was the fact that the government was, in reality, breaking new ground by applying full accrual accounting for the reporting and tracking of defence-related capital investment expenditures of almost $6 billion (or 46 percent) of the announced $12.8 billion increase in defence spending.

Specific re-capitalization initiatives outlined in Budget 2005 included the acquisition of new medium-capacity helicopters, logistics trucks, utility aircraft as well as specialized facilities and equipment for the Joint Task Force 2 organization.[73] The Budget Plan document specified that the actual cost of the capital investments would be spread over the life of the assets acquired and that the Department of National Defence would have to account for the full costs of the capital investments in budgetary cash during the years in which the assets were acquired. Moreover, the government committed to make the "investment cash" available to the department as it would be needed. Budget 2005, in effect, authorized the Department of National Defence to charge up to $300 million in annual amortization expense (or "accrual room"). The result is a dual system of control whereby the Department of National Defence will continue on a cash-appropriation basis, including investment cash, as well as on an accrual-accounting basis in a parallel system to Treasury Board which would include only the amortization for capital assets acquired through the use of budgetary investment cash. Chart 9 illustrates the projected planned spending for defence in terms of both cash and accrual budgeting.[74]

> The department uses the terms *accrual room* and *accrual space* interchangeably. Both terms can be defined as the budgetary amount that must be set aside within the Department of National Defence's annually appropriated expenditure budget to cover the amortization expense (or deferred payback) for those assets

Chart 9. Defence Budget
Net Expenditures and Total Planned Spending
In Current and Constant FY1990–91 Dollars

Notes:
1. Actual net expenditures from FY1990–91 to FY2005–06: from Public Accounts
2. Total planned spending from FY2006–07 to FY2009-10

Budget 2006 re-affirmed the adoption of accrual budgeting by announcing an additional $5.3 billion for defence over the next five years, including $1.1 billion ($400 million in fiscal year 2006–07 and $725 million in fiscal year 2007–08) in defence funding to strengthen the Canadian Forces' capacity to defend our national sovereignty and security. The only reference made to the accrual budgeting concept was found in a note to the funding table, which read as follows:

> The cost of major capital equipment is spread over its life, so the annual budgetary amounts include only a portion of the full capital cost. As was the case with the budgetary increases provided last year, the full cost of capital acquisitions will be provided on a cash basis in the years they are acquired.[75]

Post–Budget 2006 negotiations with the Department of Finance and Treasury Board indicated that the additional funds earmarked for defence would be provided in an accrual manner, thus allowing the department the flexibility to use a portion of these new funds to increase the accrual room provided in Budget 2005 and to accommodate additional capital acquisition funded through the use of investment cash. The department has started to utilize this new-found financial flexibility to its maximum benefit by advancing several substantial capital equipment acquisition projects since 2006, including

- strategic airlift – C-17,
- tactical airlift – C-130J,
- medium- or heavy-lift helicopters,
- medium-weight trucks,
- tank replacement,
- joint support ship,
- Halifax-class frigate modernization, and
- Arctic offshore patrol ship.

The value of these accrual budgeted projects is approximately $17 billion, with the investment spending to be spread over the next ten years. While these combined investments represent the largest funding commitment to defence by the federal government in recent years, it is generally understood that such a planned massive infusion of funds for

Chart 10 indicates that by applying accrual accounting principles to the budgetary process, the government will be able to expense most of the upfront acquisition costs of the new military equipment over the accounting useful life of the asset (twenty to forty years for most military equipment), rather than have the item expensed in the year in which it is purchased, as the government would under the cash basis of accounting. By so doing, the government's financial statements will not record as an expense the full disbursement of "investment cash" at the time the assets are procured; rather, the upfront disbursal will be amortized as a capital expenditure over the useful life and disclosed as a deferred expense in the department's income statement. In other words, the amortization expense now becomes a budget item, along with other cash-based funded activities. For this reason, each of the accrual-budgeted project approval submissions has had to include an estimate of the timing and amount of future year annual amortization expense to show the impact on the department's future year budgets. Furthermore, at ac11w8-2accrualsbudgeted capital(in404.4(v).2(estmentprr)5.4(ojecss, th-)]TJ0 -1.
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Within the Department of National Defence, the transition to accrual budgeting has been occurring in a legislative vacuum as the government's expenditure management framework and process for determining budget appropriations continues to be delivered on a modified cash basis. The absence of a legislative framework has created challenges for the Department of National Defence to fully implement accrual budgeting procedures for the aforementioned capital acquisition projects.

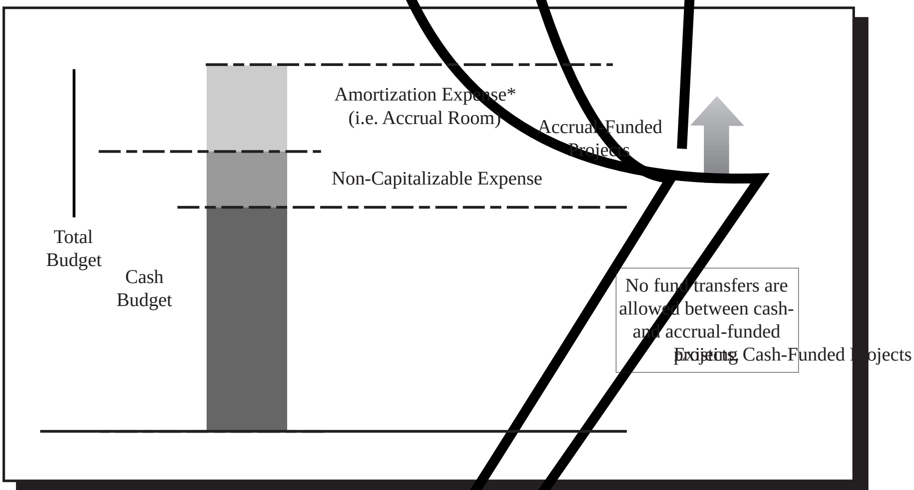
As with many government policy initiatives, the key elements are in the details. Both Budgets 2005 and 2006 provided limited information on how the government would adopt accrual-based appropriations for its capital investment expenditures. This has created a situation where

reprofile requests greater than, for example, $100 million – or some alternative threshold limit – in any given fiscal year. Although the department is allowed to lapse unused investment cash amounts, the impact on the federal government of any sizable over-spending or lapsing of investment cash funds remains to be determined, as this represents an entirely new approach in expenditure management.

> To facilitate the tracking of accrual-budgeted expenditures the department has established two new funds within its Financial and Managerial Accounting System: one for capitalizable expenditures and the other for non-capitalizable expenditures.

Chart 12 provides a graphical illustration of the defence capital equipment budget after Budget 2005, with the migration to accrual budgeting. Within its capital, or Vote 5, expenditure allotment, the department has retained its cash-based capital funds, but has now added the accrual-based or investment-cash Vote 5 funds, which are further categorized as being either capitalizable or non-capitalizable expenditures. The primary difference between these two types of accrual expenditures is that the capitalizable amounts are accumulated in a work-in-progress account until the project declares that the asset has been placed into operational service; at this time, the amortization expense will commence and start reducing the initial net book value of the asset. The forecast amortization and non-capitalizable expenses represent the department's accrual room and must be budgeted for since they will reduce the department's ability to spend during the year in which the expenses are expected to occur. The non-capitalizable expenditure amounts of investment cash are treated in the same manner as other cash-based expenditures and will be expensed during the year in which the funds are disbursed. The net result is that the department's capital equipment budget managers must now track, forecast and report on three distinct types of expenditures: capitalizable and non-capitalizable expenditures for accrual-based investment cash; traditional cash expenditures for cash-based investment funding; and one expense item, amortization expense. To facilitate the tracking and reporting of capitalizable and non-capitalizable type investment cash expenditures, the department has created two new funds in its financial system of record, requiring the Assistant Deputy Minister (Materiel) Comptroller to produce revised tracking and reporting spreadsheet templates for in-year expenditure forecasts.

Chart 12. Illustration of the Department of National Defence's Capital Equipment Budget (Post-Budget 2005)



*If the forecast "Accrual Room" is not fully utilized, it can be converted during the year to Vote 1 "Cash" as long as reprofiling is done on time.

Expenditure-management rules for accrual-based funding and cash-based funding are different. Consequently, there could be externally imposed restrictions on transfers between the two types of funds, hence the requirement to now track and report cash-based and accrual-based capital expenditures differently. At present, there are no external reporting requirements to report cash-based and accrual-based capital expenditures differently.[77] Informal working arrangements have been made among Treasury Board, the Department of Finance and the Department of National Defence in order for Defence to receive "investment cash" and, in turn, inform central agencies of future year amortization expense estimates. In terms of external reporting, cash-based and accrual-based expenditures are not separated in the government-wide chart of accounts. Therefore, this information is communicated in the department's financial statements as one total for amortization expense and a separate total for capital expenditures in the public accounts.

Another important feature of accrual budgeting is that if the previously forecast annual amortization expense or accrual room is not expected to be fully utilized (perhaps owing to asset "in-service" schedule delays) in the fiscal year in question, the department has the ability to convert the unused accrual room to Vote 1 cash and spend it on other in-year operating priorities on a case-by-case basis. This in-year budget flexibility further highlights the need for projects to forecast as accurately as possible the timing and amount of their accrual-budgeted investment cash expenditures and subsequent amortization expense.

The budgetary distinction between cash-based and accrual-based investment funding is provided in the synopsis chart below:

	Cash-Based Funding	Accrual-Based Funding
Investment expenditures	Budgetary	Non-budgetary (except non-capitalizable expenditures)
Amortization expense	Non-budgetary	Budgetary

The challenge for the Department of National Defence will be to implement an effective financial management framework to accurately forecast, record and report on the different budgetary impacts associated with cash-based and accrual-based funding.

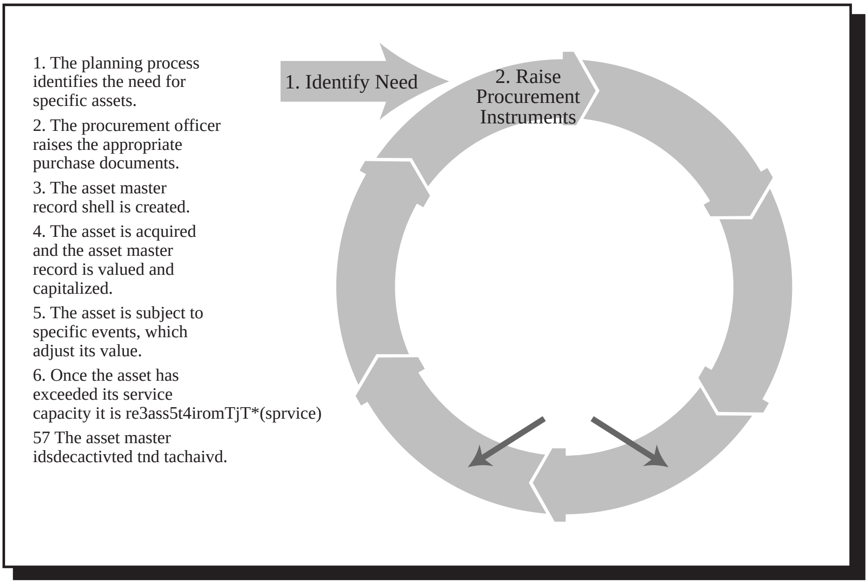
Besides the more frequent and detailed financial reporting imposed on the accrual-budgeted capital investment projects, the migration to accrual budgeting has also reinforced the need for capital equipment projects to focus their efforts on prudent budget management and the timely delivery of assets. In fact, it can be argued that under accrual budgeting, the accountabilities and responsibilities of the project manager have been heightened with due regard for cost and risk. Whether this results in more timely delivery of a much-needed military equipment capability remains to be seen, given the complexities and split departmental accountabilities of military procurement within Canada. Furthermore, Public Works and Government Services Canada (as the sole contracting authority for the Government of Canada) has, to date, not been fully engaged by Treasury Board and the Department of Finance in the implementation of accrual budgeting. This apparent oversight of not involving a major stakeholder in the process has added to the complexity of implementing accrual budgeting, since it is often only through itemized invoices, as specified in the contracting process, that the accrual-budgeted projects can accurately determine whether or not a purchased good or service satisfies the definition of a capitalizable or non-capitalizable type of expenditure. The requirement for an accurate detailing of the goods or services procured under an accrual-budgeting regime is self-evident, but Public Works and Government Services Canada must negotiate the requirement into the contract up front, and it has often been reluctant to do so over concerns that such a demand would add cost to the government for limited added value.

Another challenge for the Department of National Defence is that the department's financial and managerial accounting system of record is presently configured for cash-based expenditure accounting, creating a situation where considerable staff effort will be required to generate the additional planning, tracking and reporting required for capital projects under accrual budgeting. To address this issue, an internal department working group has been formed under the leadership of Assistant Deputy Minister (Finance and Corporate Services), with membership from other key stakeholders including the Assistant Deputy Minister (Materiel) and the Vice Chief of the Defence Staff. To date, the working group has taken action to implement accounting system modifications and work-arounds to meet the unique accrual-budget reporting requirements, and it has been charged with developing and promulgating internal policy and procedural guidance for the management of accrual-funded projects. The steps being taken remain a work in progress and are not complete, given the extensive amount of internal stakeholder coordination required. Nevertheless, it should be self-evident that the migration to accrual budgeting in the Department of National Defence could not have occurred without the implementation of accrual accounting policies and procedures beforehand. The extent to which accrual accounting principles have been incorporated into departmental business planning and resource allocation processes will either facilitate or hinder the implementation of accrual budgeting. As discussed in the next section, it is the non-alignment of existing business processes in the department with accrual accounting principles and practices that remains the single greatest impediment to obtaining the full benefits of accrual accounting.

ACCRUAL ACCOUNTING AND BUDGETING IN PRACTICE

process applied throughout the life of a system that bases all programmatic decisions on the anticipated mission-related and economic benefits derived over the life of the system.[81] The life cycle of a weapon system includes all phases of a system's life including research, development, test and evaluation, production, operations and maintenance (in-service) and disposal. An important related concept is life-cycle cost, which is defined as the total cost to the government of acquisition and ownership of the system over its estimated useful life. Under the cash basis of accounting, all weapon system life-cycle costs were expensed in the year the expenditure was made, with no reference to the remaining economic value of the asset. However, under the accrual basis of accounting, once a decision has been made to procure a new weapon system, it is necessary to set up an asset master record in the department's asset accounting system to track the asset's starting or opening net book value and subsequent monthly rate of amortization expense. Over the asset's

Chart 13. Accrual Accounting and Asset Life-Cycle Management



practices has been on the issue of changes to the estimated life expectancy of assets owned by the Department of National Defence. Even though official adoption of accrual accounting in the department occurred in 2001, there were no corresponding amendments in the department's capital equipment investment management policies. Consequently, there was no official mechanism to change the estimated life expectancy (or useful life) of capital equipment assets to ensure that such decisions would be taken strategically. In the absence of such guidance, there was minimal departmental oversight on changes to estimated life expectancy, with most being made along operational and technical lines, and little consideration was accorded to the potential long-term financial impacts on the department. Both accrual accounting and accrual budgeting demand that management fully understand and accurately document the financial impact of extending the estimated life expectancy of a capital asset, particularly the impact on the department's future annual amortization expense which has started to govern the amount of available capital investment planning room in a given period. Rigorous financial analysis is therefore key in supporting the decision-making process related to a proposed estimated-life-expectancy change.

Recognizing this shortfall, the Assistant Deputy Minister (Materiel) has taken action to formalize a policy, and associated process, through which capital assets, fleets and groups of equipment can be granted an extension to their estimated life expectancy. This new policy will ensure that all future decisions on equipment- or system-life extensions consider not only a comparison with the potential cost of replacing the asset, but also alignment with overall departmental plans, priorities and capability management plans. Along with the policy on estimated-life-expectancy changes, the Assistant Deputy Minister (Materiel) has successfully championed for the formal inclusion of betterments as a capital equipment project category in the department's capital equipment *Project Approval Guide*. The renewed policy guidance now clearly burden has been placed on the accrual budgeted projects themselves as

DEPARTMENT OF NATIONAL DEFENCE'S FINANCIAL REPORTING

Perhaps the most important aspect of accrual accounting is its impact on financial reporting and the generation of accurate financial statements – the raison d'être of accrual accounting. However, the accuracy and relevance of the accrual-based accounting information presented on the department's financial statements is only as good as the department's internal financial control framework. While the Department of National Defence, along with the rest of the federal government, begins the transition to audited financial statements, the emphasis will be on the accuracy and completeness of accrual accounting information so that the Department of National Defence can receive an unqualified audit opinion by the Auditor General within the department's reporting materiality threshold (currently established at one percent of annual expenditures). A recent Department of National Defence audit-readiness assessment conducted by an independent audit firm enumerated several areas requiring significant work by the department before an unqualified audit opinion could be realized.[83] Those areas include:

- Improvement in the computer controls and associated processes of the various systems feeding the production of financial statements, which currently make it difficult to reconcile and link accounting records and financial statements.
- Improvement in inventory valuation and reporting in order to reduce inventory inaccuracies and inconsistencies. This will require significant effort as the Canadian Forces Supply System was not designed to support financial statements.
- The need to conduct a physical verification of all capital assets by location to reconcile to the department's financial statements and asset system of record. This too will require significant effort, given the multitude of vehicles, ships and aircraft in the Canadian Forces inventory and their regular movement in support of operations and exercises.
- An increased level of documentation of controls for routine financial processes such as purchases and payables, revenue, receivables and payroll.
- The need to address shortfalls in the capacity (skills and number) of the departmental financial and non-financial staff to move to

Deputy Minister (Materiel) is the accountable authority for all capital equipment acquisition, it is the Assistant Deputy Minister (Infrastructure and Environment) who is the accountable authority for all infrastructure projects. Consequently, CISE sub-projects can be characterized as being both funded and executed under split authorities, making it a challenge to determine accountability for project cost, schedule and performance. Nevertheless, under the modified cash basis of budgeting, split funding does not present a problem from either an expenditure management or an accounting perspective since all expenditures are expensed in the year they are made. While it is possible to use split funding under the accrual basis of budgeting (both cash and accrual funds) from an expenditure management perspective, it would be very difficult and labour intensive to accurately track and report the accrual-funded portion of the CISE sub-project, which would place in doubt the eventual accuracy of the department's financial position. For this reason, the practice of split funding for such sub-projects between capital cash and accrual-based, and of split accountabilities is under departmental review and will, in all likelihood, be curtailed.

The advent of accrual budgeting has also necessitated modifications to the department's documents for internal capital project approval and Treasury Board approval. However, there is limited guidance on how the accrual or budgetary perspective of the accrual-funded projects should be estimated and shown, making each accrual-budgeted project submission unique and, as a result, not in keeping with current departmental project management policy and practice. For example, there is no requirement to include in the departmental or Treasury Board project approval submission any information on how the project's accrual expense amount is determined, by including a table that shows the total of investment funding required in a particular fiscal year is also restricted by the parliamentary calendar. These are perhaps the greatest unknown and potential risk areas as the department adopts an accrual-based budgeting framework.

Arguably the greatest challenge in adopting full accrual accounting principles in relation to departmental management policies and practices lies in the area of inventory valuation and reporting. Treasury Board accounting policy requires that departments treat inventory holdings as a type of expenditure in suspense.[84] In reality this means that the department has had to institute financial monitoring and reporting procedures that capture inventory-related expenditure transactions (purchase of inventory items) to ensure that they are not expensed but rather attributed to an inventory valuation account. Inventory items are expensed, through a reduction of inventory value, only when the items are removed from inventory or issued to an end user. Much of the dissonance between accounting principles and management procedures and practice can be attributed to the lack of integration between the department's inventory management system of record and its financial system of record, which necessitates considerable manual reconciliation to ensure that inventory quantities and values are accurately recorded and reported. Likewise, the Canadian Forces Supply System (inventory management system of record) was never designed to report the value of the department's inventory holdings.[85] In addition, the department's current inventory valuation process only includes those inventory items held in Canadian Forces supply depots or contractor-owned facilities and excludes inventory items (except ammunition) held in field or operational units such as ships, squadrons or battalions, on the assumption that the items are considered consumed when issued to the supply accounts of operational units. The exclusion of inventory items held in Canadian Forces field units essentially means that large quantities of inventory items held, on a just-in-case basis, may not be intensely – often in harsh environments – high-value weapon systems can be heavily damaged (permanently impaired) or destroyed. This can occur during normal daily use, on training exercises or during deployed operations. As a result, the equipment that is damaged beyond economical repair, or destroyed, has no residual value for the Canadian Forces. The use of a wide variety of multi-million-dollar weapon systems in deployed operations by the Canadian Forces over the past decade and a half has been extensive, and intensive use of certain weapon systems overseas can be expected to continue for the foreseeable future. Under accrual accounting, the weapon system or vehicle that is destroyed or damaged beyond economical repair would be written off, with the residual net book value written down to zero and any remaining amortization removed from future Department of National Defence obligations.[87] The difficulty has been in getting timely notification of capital asset impairment or destruction from the equipment-life-cycle managers to the finance functional chain in order to make the necessary accounting adjustments to asset valuations and amortization schedules. This is especially true for equipment on deployed operations. In an attempt to address this shortcoming, and to improve reporting under the Support to Deployed Operations Account, the Assistant Deputy Minister (Materiel) Comptroller has started to request that a report be completed quarterly on those capital assets damaged beyond repair or destroyed in theatre. A key expected benefit of this new accrual-based budgeting is that it will enable the Department of National Defence to negotiate better with central agencies for the funding to replace those destroyed weapon systems or vehicles, by determining the necessary "accrual room" to be allocated by central agencies for restoring diminished equipment capabilities.

Accrual accounting principles can be applied to the department's advantage by the incorporation of asset amortization expense information for equipment and weapons systems, which will be particularly useful to the equipment-life-cycle management process within the department for determining the optimum time (from a financial perspective) to replace or modernize equipment, based on utilization rates. During the Cold War, managing the replacement of capital equipment was a relatively orderly process; in the face of a known and quantifiable threat, equipment utilization rates could be managed closely through detailed planning of exercises and operations within a defined budget. This is no longer the case. Since the end of the Cold War, a number of Canadian Forces weapon systems have been deployed overseas repeatedly and more intensely. In effect, certain departmental weapon systems are being subjected to a much higher usage rate than was forecast during the procurement process. As a result, the estimated life expectancy of these specific weapon systems can reasonably be expectd

life-cycle cost information would provide. Similarly, tracking such information by equipment or realty asset would strengthen the department's position in negotiating future accrual room from government central agencies by convincingly demonstrating sustainment and capital investment shortfalls. While they are not a panacea, accrual accounting and budgeting will have a profound and lasting impact on defence resource management practices and, if used appropriately, could have a positive impact on the previously elusive realization of an affordable and sustainable Canadian defence policy.

Although the focus of this study is accrual accounting and budgeting, it should be noted that such a change in accounting practice could link significantly with departmental capability-based planning[92] as well as the development of a defence strategic cost model.[93] The development of planning processes and strategies within Western national defence establishments has been significant since the end of the Cold War, yet remains relatively unrecognized and unappreciated. Similarly, within Western defence, the rise of defence corporate strategy has been overshadowed by the massive restructuring and reorganization that has occurred since the end of the Cold War. Capability-based planning and strategic cost modelling both focus on the long-term perspective. Accrual accounting and budgeting facilitates these two initiatives by supporting long-term planning and decision making. Whereas the employment of capability-based planning and the assessment of the affordability of costs through use of a strategic cost model are internal benchmarking and assessment tools, accrual accounting and budgeting follow generally accepted accounting principles and result in public and transparent financial documents. The results of decisions stemming from capability-based planning and the use of the strategic cost model eventually flow through and are documented in the accounting budgetary process.

4

Summary of Accrual Accounting and Budgeting in Defence

describe

define[5]

Appendix

Examples of Accrual-Budgeted Projects

In-Service Date	Asset
200	1
200	2
2010	1
2011	1

A 1 (t)

$25,000,000 ( )

$1, 5,000

$1, 5,000

25

0

$2 , 50,000 0

25 $1,150,000 ( )

Amortization Schedule (Flight Simulator)	
Number of Assets	*Starting Date*
1	200

A 2 (A)

$50,000,000

$13,125,000 / 4 $3,2 1,250

0

$300 , 200 0 2010 11. (511 510) ( ) $300 .

A t ($000)

	FY 07–08	FY 08–09	FY 09–10	FY 10–11	FY 11–12	FY 12–13
[illegible]	$1,150	$5,6 5	$, 3 .5	$10,200	$10,200	$10,200
[illegible] (510)	5,000	10,000	15,000	15,000		
[illegible]	**$6,150**	**$15,675**	**$22,937.5**	**$25,200**	**$10,200**	**$10,200**

	FY 13–14	FY 14–15	FY 15–16	FY 16–17	FY 17–18	FY 18–19
[illegible]	$10,200	$10,200	$10,200	$10,200	$10,200	$10,200
[illegible] (510)						

[illegible] 1

	FY 25–26	*FY 26–27*	*FY 27–28*	*FY 28–29*	*FY 29–30*	*FY 30–31*
[illegible] ([illegible])	$10,200	$10,200	$10,200	$10,200	$10,200	$10,200
[illegible] (510)						
[illegible]	**$10,200**	**$10,200**	**$10,200**	**$10,200**	**$10,200**	**$10,200**

	FY 31–32	*FY 32–33*	*FY 33–34*	*FY 34–35*	*FY 35–36*	*Total Cost*
[illegible] ([illegible])	$10,200	$[illegible],050	$4,525	$2,262.5	0	$255,000
[illegible] (510)						45,000
[illegible]	**$10,200**	**$9,050**	**$4,525**	**$2,262.5**	**0**	**$300,000**

[illegible] $300 [illegible] 200 0 [illegible] 2010 11, [illegible]

[illegible] . 2

[illegible] $30,000 [illegible] (1) [illegible]

(2) (3)

B

1 ( ), 202

$ .5

( ) $2 , 50,000 ($1,150,000 20) $5, 50,000

+

$5, 50,000 + $,500,000 0

5 $2, 50,000

[illegible] A [illegible] t [illegible] ($000)

[illegible]

	Accumulated Expenses FY 07–08 to FY 26–27	*FY 27–28*	*FY 28–29*	*FY 29–30*	*FY 30–31*
[illegible] ([illegible])	$1[illegible],1[illegible]2.5	$11,[illegible]00	$11,[illegible]00	$11,[illegible]00	$11,[illegible]00
[illegible] ([illegible] 510)	45,000				
[illegible]	**$233,162.5**	**$11,900**	**$11,900**	**$11,900**	**$11,900**

	FY 31–32	*FY 32–33*	*FY 33–34*	*FY 34–35*	*FY 35–36*	*Total Cost*
[illegible] ([illegible])	$11,[illegible]00	$[illegible],050	$4,525	$2,2[illegible]2.5	0	$2[illegible]3,500
[illegible] ([illegible] 510)						45,000
[illegible]	**$11,900**	**$9,050**	**$4,525**	**$2,262.5**	**0**	**$308,500**

B[illegible] t [illegible]

[illegible] 202[illegible] [illegible] $[illegible].5 [illegible] 2031[illegible]32 [illegible] 2035[illegible]36. [illegible] ([illegible]) [illegible]

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