

Controlling Defense operations Disclosures of the Royal Netherlands Army 2001-2005

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NL-ARMS, 2007, xx-xx

Abstract

This contribution stresses the need to adjust performance management to deficiencies in results controls, whenever such deficiencies prove to be inevitable. We argue that management control has to reach beyond results into the underlying activities. Deficient result controls should be supplemented by action controls embedded in transformation processes. We argue that performance controls should be based upon opportunity costs implied in the actual use of resources, whenever these costs themselves can be disclosed. We outline a framework for such a disclosure as a basis for management contracting between central management and lower level organization units. We illustrate the framework for the operational units in the Royal Netherlands Army (RNLA), using disclosures in the Budget Memoranda issued between 2001 and 2005.

Introduction

For many years the Dutch Department of Defense (DDoD) seemed to be exempt from most of the performance controls generally required by market pressure. All the conditions for suboptimal performance were present: a monopoly position, ambiguity of targets and a management philosophy aimed at effectiveness instead of efficiency (Meyer & Zucker, 1989). However, since the 1980s, the improvement of management control in the DDoD has been recognized as a major issue in the organization. Notwithstanding the performance measurement system implemented in Dutch central government in accordance with the Government Budget and Accounting Act 1976, accountability for performance within the Dutch Defense organization was generally considered inadequate. Several reforms tried to build performance-oriented control systems on the basis of the performance measures acquired, without any substantial change in the input controls traditionally applied.

As a consequence, attention shifted from the application of results controls in DDoD's mission centers to efficiency improvements in service centers which were considered more promising. In 2003 the DDoD introduced a new governance concept

(Ministry of Defense, 2003b), building upon transfer pricing for its internal service units. As internal services encompass a substantial part of the Defense activities (more than half of Defense personnel being employed in them) considerable gains might be realized by pricing them.

However, in our view this shift of attention may be considered a ‘flight forward’ for the DDoD’s performance management: the actual problems in specifying the results ultimately intended in mission centers should be solved before any market for internal services can be tuned to those results. Otherwise, flaws in mission center controls will only be transferred to the transfer pricing system controlling performance in the department’s service centers.

In this contribution, we stress the need to adjust performance management to deficiencies in results controls, whenever such deficiencies prove to be inevitable. An analysis of management control in the Dutch Department of Defense (DDoD) may therefore provide an excellent example to demonstrate our proposition. We address the control problems encountered in the DDoD’s mission centers. We argue that management control has to reach beyond results into the underlying activities. Deficient result controls should be supplemented by action controls embedded in transformation processes. By investigating the management reforms of the recent past in DDoD, we try to set the stage for such a disclosure of transformation processes in the Defense organization.

To this end, the article is structured as follows. In the next section, we discuss the proposals for transfer pricing contained in the 2003 governance concept for DDoD. Then, in section three, we argue that performance controls should be based upon opportunity costs implied in the actual use of resources, whenever these costs themselves can be disclosed. Section four outlines a framework for such a disclosure as a basis for management contracting between central management and lower level organization units. Section five illustrates the framework for the operational units in the Royal Netherlands Army, using disclosures in the Budget Memoranda issued between 2001 and 2005. The final section summarizes our findings.

Transfer pricing in the Dutch Department of Defense^I

Historical background

Following the Government Budget and Accounting Act 1976 oriented at legislative budgeting, in 1984 a reform labeled self-management was introduced in Dutch central government to improve (internal) management budgeting in government organizations. Self-management triggered many initiatives to define and measure performance indicators. By substituting performance controls for the input controls traditionally applied,

competencies and responsibilities could be decentralized to lower levels of management. Self-management should be based on contracts between central management and organization units. The contract would specify both the targets for results attained and the resources provided to realize those targets. During the 1980s, all departments of the Dutch central government started projects to develop performance indicators to measure relevant targets for production in self-managing organization units.

The concept of self-management got substantial support in the DDoD as well. Specifically, logistic support units implemented elaborate systems of performance indicators in so-called task programs, specifying measurable yearly targets for production in these units. Actual values for the indicators were periodically submitted and analysed in evaluation reports (Mol, 1996). However, devolved competencies and responsibilities remained negligible in the management contracts. The development of large sets of performance indicators proved inadequate as a foundation for responsibility accounting for the activities performed. Responsibilities for diverging ex ante/ex post indicator values generally could not be established: many external causes can always provide for many alternative explanations. Thus, central management remained unwilling to reduce its control over inputs by decentralization of competencies to lower levels of management. The self-managing units were not managing themselves at all.

In the 1990s, subsequent to these 'bottom-up initiatives' to improve performance management in Defense, a formalized 'top-down reform' was implemented to arrive at responsibility for results in the Dutch Defense organization. The organization was subdivided into result responsible units (RRUs). The RRUs were controlled by means of management contracts with respect to services provided and resources consumed. Contract-based management control was supposed to reduce the burden of bureaucracy. However, again the contracts largely failed to specify the performance controls required for that purpose.

Transfer pricing for internal services

From this perspective, alternative ideas developed in the Ministry of Finance have recently been presented as a solution. These ideas focus upon the application of market mechanisms in government, rather than the budget mechanism characterizing the performance budgeting proposals in all self-management reforms. The basic objective is to create demand and supply relationships between (consuming) departments and (producing) agencies. The budget mechanism only remains in vigor with respect to the (consuming) mission centers of government. The (producing) service centers are paid through transfer prices.

Within the DDoD, these ideas were embraced enthusiastically. It was readily acknowledged that over half of the employees of the Netherlands Defense organization work

in its service centers, rather than in the operational mission centers. With respect to those service units, the introduction of market instruments fitted perfectly in the new governance concept (Ministry of Defense, 2003b). According to this new concept, the operational and service units within the Navy, Army and Air force will be directly subordinate to the Chief of Defense (CHOD), formerly known as the Chief of the Defense Staff (CDS).

As is generally acknowledged, the integration of the armed forces magnifies the complexity of Defense planning and control. Planning and control harmonization between the present RRUs has to accommodate a vast increase in the number of transactions to be harmonized. This complexity is generally considered to exceed the scope of control of the RRU management control system.

The introduction of transfer pricing between operational units and service units may thus constitute a logical consequence of this increase in complexity. Present budgeting systems for all RRUs will be replaced by a dichotomy of budgeted operations, on the one hand, and priced services (paid out of those budgets) on the other. The centralized planning and control harmonization model will thus give way to a decentralized market exchange model, as any complex economic system would require (Neave, 1991).

Requirements for transfer pricing

In the design of internal markets, generally four types of transfer prices are distinguished: (1) market-based transfer prices, (2) marginal cost transfer prices, (3) full-cost – eventually full-cost plus a mark-up - transfer prices, and (4) negotiated transfer prices (e.g., Merchant and Van der Stede, 2003). Then, the question is to what extent each of these types might be applied to Defense. The new governance concept, however, does not elaborate on the type of transfer pricing it has in mind. So, instead, we will have to inquire into the feasibility of the alternatives ourselves, to assess the prospects for the reform intended by it.

With respect to the first alternative, we lack benchmarking opportunities required to assess the validity of market prices in the environment of the Defense organization. Even when services are comparable to any market supply – as in, for instance, maintenance facilities – availability requirements for Defense (capacity not actually used in times of peace) will cause price differentials. Assessment of divergences resulting from strategy - as opposed to inefficiency – is usually a matter of subjective judgment. For instance, military salaries differ from civil levels. When outsourcing is out of the question, transfer prices should be adjusted to these differences. But, in the package deals involved in military employment, cost allocations that are required for this adjustment would be fairly arbitrary.

With marginal cost pricing we encounter the familiar problems arising from negligible

variable costs in the production of Defense: costs are to an overwhelming extent committed – they directly result from capacity planning based upon ‘availability’ requirements. For the Netherlands such calculations amount to about 95% of total costs (De Bakker, 1998; Van den Hooven & Mol, 2000). Marginal cost pricing may only be relevant to a minor part of services, for instance, for specific civil modes of transport (buses) already rented on a regular basis from outside suppliers. The prices paid to these suppliers can obviously be easily charged to the operational units actually using the transport facilities rented (see Ministry of Defense, 2004b).

In assessing the remaining alternatives, both negotiated prices and full cost allocations may imply a great deal of trust that decentralized clients will behave in accordance with central management objectives. A self-balancing economic system of transfer payments to co-ordinate economic behavior at lower levels of the organization does not necessarily enhance the span of control from the top. Generally, information asymmetry puts the CHOD at a disadvantage in the assessment of efficiency and effectiveness of this behavior. The agents will have superior knowledge of the activities involved.

Checks and balances can - in principle - be established by the application of benchmarks and the possibility to refer to best practices stemming from them. Countervailing power for the CHOD results from accountability for variances and the shift of the burden of proof (for realized indicator values) to the organization units induced by variance analysis. However, application of benchmarking in the DDoD is generally hampered by the monopolistic services produced in the department.

Conclusions from agency theory

From an agency theoretical point of view, a trade-off between budgeting and pricing of service centers may be perceived with respect to direct and indirect control costs in the application of these coordinating systems in government organizations (Mol, 1998). Direct control costs encompass the resources used up in the budgeting system, on the one hand, and the internal market transactions on the other. As expected under the new governance concept, bureaucracy costs of the former may exceed transaction costs of the latter. Indirect control costs will consist of the agency losses stemming from decentralized decision-making – but with respect to them there is no clear-cut intuitive outcome of the benefit-cost comparison of both alternatives.

Essentially, a system of transfer pricing focuses management control at CHOD level on (budgeted) operational units. On the one hand, then, agency losses may be reduced when operational units negotiate supply from service units, enforcing efficiency in service delivery with the power of their purse. Opportunity costs involved in paying for these services out of their own budgets will immediately be recognized by the operational units themselves – as any outsourcing will reduce spending opportunities on resources

of their own. On the other hand, however, the assessment at lower levels of the opportunities forgone will proceed from objectives pursued at those levels as well. From the point of view of the CDS these objectives may be distorted by goal incongruence, offsetting the efficiency gains stemming from a presumed superior knowledge of production wielded by those decentralized decision-makers. Ultimately, then, the trade-off depends on the extent of these incongruities. Or alternatively, on the extent to which decentralized decision-making can be trusted to proceed in accordance with performance objectives intended at the top.

In the absence of Weberian bureaucracies – internalizing those performance objectives without any interference with objectives of their own –, goal congruence may not be presupposed to exist in advance. Conflicting interests should thus be clearly perceived, to judge whether any decentralization of decision-making might nevertheless be justified.

In this respect, an assessment of potential conflict may proceed from the distinction of ‘client supported’ and ‘public supported’ organizations, as modeled by Anthony and Young (2004). In client-supported organizations, the goals of top management and mission centers converge in principle. Both will address effective demand in the environment of the organization. Revenues obtained by mission centers are as relevant to top management as they are to those centers themselves.

This convergence, however, may not occur in public-supported organizations. Income received by top management from public budgets may be spent in accordance with quite different utility functions, depending on the decision-maker that actually governs the ultimate choice. Conflicting interests are intrinsically embedded in principal-agency relationships, where budgets allocated to agents imply a (re) distribution of the principal’s income as well.

In public-supported organizations a prerequisite condition for decentralized management control, then, is first and foremost the existence of measurable (SMART; i.e., Specific, Measurable, Acceptable, Realistic, Timely) objectives in terms of which decentralized decision-making is evaluated.

The introduction of transfer prices can be justified as a ‘second step’ whenever the objectives have been smartly identified in an antecedent system of responsibility for results. A successful implementation of management controls for operational units necessarily precedes any devolution of controls for service units in a transfer pricing mechanism for Defense. But in the present management control system this prerequisite condition is not (yet) fulfilled.

Management control for operational units in Defense

Performance management should be adjusted to the deficiencies inherent in the results controls within the DDoD. A lack of validity of the indicators used in performance measurement may cause harmful side effects in their application, requiring supplementary control mechanisms to overcome those impediments (De Bruijn, 2002). In this section we distinguish three layers in these impediments, each giving rise to further adjustments in the management control systems of the DDoD.

In the first layer, we note the relevance of a differentiation between RRUs in view of the measurability of their outputs and the homogeneity of their activities. On the basis of this differentiation the applicability of output or throughput controls may be assessed, to reduce the tightness of traditional DDoD's input controls. Supplementing the familiar input-output dichotomy, alternative types for management contracts can be identified, based upon process and outcome indicators, respectively.

In the second layer, we stress the need to adjust the planning and control cycle to those diverging contract types. Both to remain in control and to maintain decentralized accountability at the same time, specific shortcomings in the RRU contracts should be balanced by matching controls in contract execution. Reviewing past experiences shows that RRU management control continued to apply a uniform control framework. Clearly, this uniform system had to be based upon (minimum) accountability requirements fulfilled in all RRUs without exception. Those requirements then had to refer to resource consumption – inputs used instead of results obtained – exclusively. Thus, contrary to the intended responsibility for results, traditional input oriented controls continued to dominate Defense management.

In the third layer, we further inquire into the obstacles underlying this failure to tailor controls to decentralized organization units. These obstacles result from both the resource budgeting system applied in the RRU contracts and from compliance to expenditure limitations prohibiting the application of accrual accounting to match resource consumption with results obtained.

We conclude that performance management can only partially be built upon financial information systems. To control actual decision-making within decentralized organization units additional management control systems have to be installed. In the next section these additions are investigated.

Differentiation in management contracting

Ideal type performance budgets specify outputs and costs. Principals and agents may agree on such output budgets, whenever the former are satisfied to get value-for-money, and the latter are adequately compensated for their efforts in value creation. However,

management contracts remain incomplete when output definitions fail to specify all necessary requirements or when costs are insufficiently standardized. Performance budgets, then, are incomplete with respect to output targets, with respect to cost standards, or with respect to both of these conditions. Generally, we distinguish four types of performance budgets (table 1).

		Measurable outputs?	
		Yes	No
Standardized costs?	Yes	Output budget	Process budget
	No	Task budget	Input budget

Table 1 Typology of performance budgeting

Responsibility for results in management contracts depends on the specifications in the performance budgets underlying them. In the development of the responsibility for results concept in the DDoD in the beginning of the 1990s, this dependence was clearly recognized. Accordingly, a 1993 Defense Policy Memorandum (Ministry of Defense, 1993) suggested the application of the budget typology to Defense activities: output budgeting for service centers, process budgeting for operational units – under conditions of peace –, and task budgeting for peace-keeping operations of the armed forces. Traditional input budgeting would only remain effective for staff units of the DDoD.

However, the Policy Memorandum did not elaborate on the consequences of the application of the respective types. Thus, in implementing responsibility for results in the designated RRUs in the Defense organization, guidelines determining how responsibilities and competencies should be matched in contract execution failed to arise. The ‘contracts’ actually agreed upon consisted only of a listing of product and budget elements, without any adjustment of the management controls previously applied.

In this way, responsibility for results remains indeterminate. Principals and agents merely agree on targets for performance indicators and budgets. Principals are free to impose budget cuts, while agents are equally justified in presenting inadequate results. Without any hesitation, then, performance indicator values far below targets may be reported. For instance, readiness for use, generally targeted at 90%, has been ‘shamelessly’ reported by RRU commanding officers at 70% or less, arguing that external causes were to blame for these poor results.

Adjustment of planning and control to contract differentiation

Contract management ideally entails two-sided agreements between central management and organization units. The organization units commit themselves to producing the services specified in the contract. Central management guarantees the necessary

resources for production. Output targets and standardized costs embedded in the agreements constitute accepted benchmarks to judge performance. Management control is thus based on output controls, and decision-making with respect to resource consumption can be highly decentralized. In this 'best of all possible worlds', management control has the following characteristics:

1. budget authorization: budget authority is decentralized for controllable costs;
2. budget execution: decision-making on resource consumption - within the boundaries set by the budget - is devolved to the organization units;
3. budget limitation: allowable cost levels are adjusted during the budget period to changes in contracted outputs and to changes in non-controllable circumstances;
4. budget evaluation: both variances in outputs realized and costs incurred are evaluated in terms of efficiency and effectiveness.

We will now review the contracts in DDoD with respect to the four characteristics above. We will document the persistence of input controls resulting from the inability to adjust control to specific deviations from this ideal type (cf. Mol, 1999).

Budget authorization

In RRU contracts costs have to be allocated to contracted results. The cost allocation requires a two-step adjustment procedure of the expenditures in the DDoD financial information system. First, expenditures have to be transformed into expenses for resources consumed. Second, expenses have to be allocated to the cost objects specified in the contracts. The first step, the adjustment of expenditures to expense elements, is carefully planned in the 'responsibility for results' reform. In accordance with this reform all RRU resource budgets consist of three parts:

1. An expenditure budget including all personnel and material resources for which the rule expenditure equals expense applies. This part is specified by four items in a line-item format:
 - military salaries and related expenditures
 - civilian salaries and related expenditures
 - other personnel expenditures
 - material expenditures
2. A part for material resources, where resource consumption in the budget period may deviate from purchase. For this part of the budget a 'cost module' should be fitted into the departmental financial information system (e.g., with respect to expenses on fuel and ammunition - generally the most important items in this part of the budget).
3. A part for transfers from other organization units, the so-called drawing rights. Services received from other RRUs are being accounted for in view of the required

planning harmonization. However, in principle they are not controllable during the budget period: they should be agreed upon in advance. Resource costs incurred for their production remain part of the (expenditure/cost) budget of the service center RRU. The mission center RRU budgets only specify the deliveries the operational units are entitled to. These deliveries are summed up in lists of considerable length in the contracts: up to a hundred items may be specified for training facilities (distinguished in a number of categories), maintenance of weapon systems, equipment and vehicles, housing and infrastructure of several kinds et cetera. A general complaint with respect to this specification of 'drawing rights' understandably concerns the enormous amount of paper work involved.

These three-part listings of resources bought or hired, used or received, stand apart from the listing of performance indicators elsewhere in the contracts. No attempt is made to engage in the next step of cost allocation by transforming the line-item format of the budget in a program format.

It is not clear, moreover, how such a transformation can be accomplished. The numbers of items involved, the lack of data on the specific use of those items, and the deficient linkages between the three parts of the budgets in the existing information systems would make the exercise far too complicated. Thus, cost allocation would not even be feasible in the RRU resource budgets. Authorization of RRU resource budgets, therefore, necessarily refers to expense on resources, instead of results obtained. This obviously prevents the development of performance controls in budget execution.

However, additional deficiencies arise in budget authorization. In the RRU expenditure budget all (direct) labor and material costs are devolved to the responsibility center. The RRU budget is thereby supposed to reflect full cost, irrespective of cost controllability. Obviously, the overwhelming majority of these resource costs are non-controllable. Salary payments normally constitute the bulk of the expenses involved. Controllable items will be restricted to fringe benefits (e.g., expenditures for representation and education). Generally, only 5% of budgeted expenses may be considered controllable – thus not only responsibility for results, but even responsibility for resources, is largely absent in the RRU management contracting system.

Budget execution

Following the line-item format of the budget, competencies in budget execution are demarcated in terms of input controls. For all RRUs, uniform competencies are specified in the categories of the so-called PIOFAH model generally applied in Dutch central government. These categories are:

- P: personnel
- I: information

- O: organization
- F: finance
- A: procurement ('aanschaffingen' in Dutch)
- H: housing

For each RRU, personnel volumes and functions are determined in advance. Changes in P-functions and salary levels are permitted within boundaries. Delegated recruitment for military personnel is restricted. For civilians these restrictions apply mainly to senior salary categories. I-systems for internal use may be freely installed. EDP equipment, however, should fit in a central Information Technology Plan. Internal O-structure may be decided upon by the RRU itself within the boundaries set by the determined personnel formation. With respect to the F-function minor out-of-pocket expenditures do not require prior approval and for some resources switching between sub budgets is allowed. In the A-controls a set of articles to be bought directly at the market (without intervention of Defense procurement centers) is specified. Finally, the H-facilities for Defense are centrally managed, RRU competencies usually being limited.

Restrictions of RRU competencies in the PIOFAH categories are a regular cause for complaints in the Dutch Defense organization. The restrictions, however, are inevitable by default of performance controls with respect to competencies delegated to the RRUs. Moreover, controls are not being related to performance characteristics of the RRUs. For some organization units these uniform controls may be considered adequate, for others they will be perceived as serious obstacles to the performance ultimately intended.

Budget limitation

RRU expenditure budgets – the basic and most important part of their resource budgets - are provided with the usual fixed ceiling spending limits characteristic of expenditure budgeting in general. Without benchmarks for resource costs of intended outputs, no trade-off of budget discipline and target realization needs to be accounted for. In this way, 'decentralized budgets' have no relevance to performance motivation either. RRU budgeting cannot be supposed to enhance efficiency or effectiveness, as spending limits are imposed regardless of performance.

Budget spending is only motivated by the drive to exhaust authorized resources. This behavior does not contribute to an improved cost consciousness in the RRUs. However, cost consciousness is supposed to be the single most important objective of the result-oriented management control framework. In this respect, the impacts of the responsibility for results framework may even be counter-productive. Accidental windfalls in non-controllable items - not distinguished as non-controllable in the budget and thus possibly not recognized as such - may be spent (within the RRU's PIOFAH competen-

cies) on whatever benefits the RRU itself envisages. An equally accidental setback may, however, be presented as requiring budget adjustment: flexibility of budgets in which 95% of expense is non-controllable may be argued insufficient for the 'endogenous' compensations otherwise needed. In fact, under the RRU management contracts flexibility of budget spending in organization units has been reduced, in particular since salary payments have been included in the budget. Thus, though responsibilities for budget spending may have formally increased, accountability for budget spending has actually materially decreased.

Budget evaluation

As already implied in the control characteristics discussed above, performance evaluation with respect to the contracts agreed upon in terms of efficiency and effectiveness is found wanting. First, product and budget elements in the contracts are not linked to judge performance on the performance indicators (if any) listed. Budgeted expense cannot be related to performance, prohibiting variance analysis with respect to the figures presented. Second, the application of input controls in budget execution further reduces accountability for results obtained. Controllability of cost is obscured in the 'full-cost' budgets and decentralized competencies in decision-making on resource costs are restricted.

Disclosure of transformation processes in management control

All endeavors to implement a system of decentralized management control in the Defense organization failed to answer the question of which competencies with respect to resource use should actually be delegated to make units responsible for results. Competencies on resource use considered in the PIOFAH approach are related to expenses - adjusted expenditure - not to activities performed. A next step to arrive at some responsibility for results is a shift from the resource budgets applied in the RRU contracts to 'accrual budgets' in accordance with private business practice.

However, budgeting in public-supported government essentially differs from budgeting in client-supported private business. First, valid linkages between resource costs and performance may be established in private business. The market mechanism prevents the distortion of control by deficient performance indicators. In government, only target values for performance - agreed upon in advance - can be used as benchmarks to evaluate indicator values realized. Generally, in this setting only a loose coupling between cost and performance indicators may be warranted - indicators only provide indications and nothing more. Second, budgeting in government organizations ultimately depends on appropriations in legislative government budgets. These appropriations define external expenditure limitations. They have to be observed, whatever objectives may have been

set in the RRU's management contracts. Responsibility for results will inevitably be overruled by the restrictions imposed on the budget itself. Budgetary responsibility will adjust to this priority and address first of all controllability of expenditure within the limits set.

As has been noted already, budgetary responsibility for controllable expenditure must necessarily be narrowly restricted. Specifically, where budgetary flexibility for current expenditure in Defense is limited to about 5% (95% of expenditure being 'committed'), discretionary decision-making only addresses a fringe of minor expense on representation, traveling, et cetera. To decentralize decision-making on committed costs may imply obvious inefficiencies, as capacities have to match between the organization units, as crowding-out of investment by consumption may occur and windfalls in committed costs may be very arbitrarily distributed (specifically expenditure freed by retirement of personnel may have purely incidental impacts). The idea that decentralization of responsibilities and competencies should involve expanded opportunities for decentralized decision-making on expenditure or expense budgets will thus imply a mission impossible in advance. The decisions addressed may only reflect degrees of economy in spending the discretionary 5% of budgeted resources, and controls applied to those decisions might rightfully be judged 'penny wise, pound foolish' in this respect.

Furthermore, increased decentralized competencies to substitute budgetary resources for each other (e.g., switching between personnel and material) does not materially affect responsibility for results either. Therefore, we conclude that the pursuit in the RRU management control system will remain fruitless – and the implementation of the new governance concept defined for Defense, which has been shown to depend upon this pursuit, as well.

In our view, however, the scope for budgetary decision-making is misrepresented in the assumption that the committed 95% of expenditure has to be considered non-controllable for the RRUs. Decision-making on the use of committed resources does not only cover the commitment as such; it equally encompasses actual use of the resources in budget execution. Discretionary decision-making on resource use may reflect opportunity costs incurred, even when no alternative resources are involved. Committed resources are not necessarily restricted to specific purposes. They may be committed to rather general purposes instead. Thus, we will have to enquire into the alternatives available for resource consumption, to assess the decentralization of competencies actually at stake.

Usually, committed costs are associated with capital investment. Outlays on military equipment – weapon systems – may be acknowledged to commit resources for sometimes very specific purposes. In the Air Force and the Navy the selection of certain types of aircraft and ships may restrict resource use for operational units of these Services to a

large extent and for a considerable length of time. In such cases, committed costs have become non-controllable in all relevant senses. And this lack of controllability may not only affect capital costs themselves; it may affect all related ('complementary') personnel and material costs as well. The choice of a specific weapon system may thereby fully determine budgetary spending for some RRU.

However, in the labor-intensive production processes of many other armed services – specifically, but not exclusively, in the land forces – this argument does not hold. Labor may be put to many alternative uses, notwithstanding fixed expenditure on military and civilian salaries. Even capital expenditure like soldier equipment can be judged variable in this sense, as the use of this complementary expenditure will depend upon the use of labor itself.

Obviously, discretionary decision-making in the RRUs will not be reflected in its expenditure or expense accounts. Management control cannot be based upon the financial accounting system actually applied in present DDoD management contracting. However, additional control systems are largely absent: opportunity costs of labor are hardly visible to central management. The controls applied to RRU budgets do not prevent actual use of labor to be predominantly determined by RRU objectives and priorities. As management contracts specify requirements for expenses exclusively, these objectives and priorities generally remain implicit in RRU contracting – and as a result tight input controls are being applied in the endeavor to redress the distortion of decision-making stemming from them.

Our analysis of the control problem embedded in the RRU management contracting system can be summed up as an argument to establish more transparency in RRU resource use, contrary to the actual emphasis on resource provision. Responsibility for results may be based upon opportunity costs implied in the use of resources, whenever these costs themselves can be revealed.

In our view, an assessment of resource use in activities performed may be developed as an extension of accounting systems already applied in other government organizations. Building upon earlier research (Mol and De Kruijf, 2004) these mechanisms are outlined in the next section. Subsequently, their application to Defense is examined in section five.

Resource use in activities performed

In the labor-intensive services of government organizations variable costs of labor employed on the basis of unrestricted contracts are pivotal in establishing or evaluating efficiency of performance. Budgetary accounting for management control will not be

able to assess this variability in purely financial terms. Salaries paid will usually express relevant costs only to a very limited extent: the bulk of payments is fixed and independent of activities performed.

To disclose variability, the allocation of time within the fixed labor force will have to be addressed. Generally, however, accounting systems are not tuned to the measurement and allocation of labor time needed for this purpose. Additionally, heterogeneity of labor – in volume and price – may prove to impede the calculations required. But nevertheless, actual possibilities to disclose opportunity costs of labor time are rarely exhausted in government organizations. In our view, the possibilities are not exploited in the DDoD.

In this respect, Mol and De Kruijf (2004) show that management reports in Dutch central government address decisions on labor time at very different levels of disclosure. Typically, they distinguish four levels of disclosure:

1. At the lowest level, information is restricted to (productive) labor time, measured in hours or full-time equivalents (FTEs). At this level, variances can be detected with respect to authorized staffing levels and divergences caused by leave of absence, detachment elsewhere or training programs. This level is generally recognizable in management reports within Dutch central government. Authorized budgets are generally accompanied by agreements on personnel formations of organization units, usually with fixed FTE capacity constraints and often including specifications in function groups (salary levels). Variance analysis in terms of unfilled vacancies and – prominently – sick leave percentages is common practice. The sick leave indicator may weigh heavily in human resource management as a yardstick of employer-employee relationships.
2. At the second level, a distinction between direct and indirect labor is made. Information at this level may give a clue to assessing burdens of overhead and it may provide an idea of priorities attached to different tasks in organization units. Hours locked up in ‘back office’ paper work – as opposed to direct operations – and allocated to specific tasks can be monitored and reported for all organization units engaged in primary processes. Familiar examples in Dutch government relate to the (regionalized) police organization. For many years this organization has professed its commitment to increase actual presence of the police force ‘at street level’ – unfortunately, with limited success as about two-thirds of working hours remain locked up in back-office desk activities.
3. At a third level, labor time is allocated to measurable activities (contrary to tasks circumscribed in general terms only). It allows the assessment of workloads and the performance of variance analyses with respect to them. In more or less homogeneous processes – as exemplified by several inspection services in Dutch central government - such an assessment should be feasible. Reviews of performance reports, visits

to inspect producing facilities, procedures to assess compliance with regulations, et cetera, may be sufficiently standardized to allow for measurability in ‘numbers of services provided’. For organization units with a fixed (personnel) capacity developments of these numbers over time may indicate increasing or decreasing ‘stress’ and interorganizational variances may *ceteris paribus* be interpreted as productivity differentials.

4. At the fourth level of disclosure, the labor time allocated to activities is additionally standardized. Thus, information on hours actually worked permits performance evaluation in terms of efficiency. Clearly, at this level opportunity costs will be revealed – and conditions will thereby be fulfilled to move on to contractual relationships with mission centers, ultimately permitting a next step towards transfer pricing as well. For a number of organizations in Dutch central government this level has already been implemented. The (national) cadastral organization, the agency for road traffic control and – to some extent – the internal revenue service have developed information systems to monitor the relevant variances. In all these cases management control has effectively been embedded in benchmarking for decentralized organization units.

However, even while only the fourth level of disclosure will provide a really firm base for management contracting, a move upward from the first level to the second and third may certainly pave the way. The decrease in information asymmetry between principal and agent established by decision revelation at any higher level of disclosure might trigger renewed incentives to realize the potential of ‘self-management’ in the struggle against bureaucratic paralysis in government organizations. This proposition may hold for the DDoD as well. Thus, in the next section we will investigate the possibilities for such an upgrading of management control in a number of mission centers within the DDoD.

Disclosure of opportunity costs of labor time

In all organization units of Defense, decision-making processes regarding activities imply choosing the use of the fixed available labor force. While the size and composition of the unit’s staff may be given at the onset, the commander controls to a large extent whatever is being done with this ‘production capacity’. Generally, the commander’s decisions will have only minor consequences for the unit’s total expenditure – but they may be decisive with respect to actual performance of the unit.

We have investigated how the opportunity costs embedded in commanders’ deci-

sions are being reflected in the information disclosed on the activities performed. Our research has been directed at the disclosures made by the Royal Netherlands Army (RNLA), in particular, as disclosures made by the land forces are usually expressed in labor time (e.g., man hours or days), instead of air time, police time, or sea time. We focus on the part of the RNLA that is responsible for preparing operational units for deployment in the international peace keeping and peace enforcing operations in which the Netherlands participate. To date, September 2007, this part of the RNLA is called the Land Forces Command (in Dutch 'Commando Landstrijdkrachten'; CLAS). The 2002 Budget Memorandum calls this part of the Army I (GE/NL) Corps. In the 2003 Budget Memorandum it was called 1 Division <<7 December>>. Finally, the 2004 Budget Memorandum refers to OPCO: Operational Command.

As a matter of fact, the development in the disclosures made in the 2002, 2003 and 2004 Budget Memoranda (issued between 2001 en 2003) and the 2004 Annual Account (issued in 2005), correspond to the levels 1, 2, 3, and, arguably, to level 4 distinguished in section four of this paper. The 2005 Budget Memorandum (issued in 2004) corresponds with the disclosure level in the 2004 Annual Accounts. However, in the 2006 Budget Memorandum (issued in 2005) disclosures return to below level 1.

A Level 1 Disclosure: I GE/NL Corps

According to the 2002 Budget Memorandum (Ministry of Defense, 2001: 58), I German- Netherlands Corps (1 GE/NL Corps), within RNLA, is considered the most important supplier of operational readiness of the units.

The Dutch part of I GE/NL consisted of:

- 1 Division << 7 December>>,
- 11 Air Maneuver Brigade
- Special Forces (in Dutch: 'Korps Commando Troepen'; KCT);
- the Dutch part of the Command Support Brigade.

Furthermore, the Memorandum states training and exercise to be the key-activities that will lead to operational readiness at the right time. Training and exercising is considered to be preparation for the actual deployments. The consequences of these points of view may be quantified as follows in table 2:

Activity	Measurement unit	Realization 2000	Expected 2001	Estimate 2002
Training/exercise	Man days	520 000	560 000	580 000
Deployment	Man years	1900	1700	1600

Source: Ministry of Defense (2001: 58)

Table 2 Level 1 disclosure: Productive hours for training/exercise and deployment

We consider the disclosures in table 2 to be level 1 disclosures. Both 'items' specify the total productive labor time available for 'training' and 'deployment' realized in 2000, expected for 2001 and estimated for 2002.

A Level 2 Disclosure: 1 Division 7 December

In 2002, I (GN/NL) Corps ceased to exist. The 2003 Budget Memorandum (Ministry of Defense, 2002: 63) stated that due to the formation of the High Readiness Force (Land) Headquarters (HRF(L)HQ), 1 Division <<7 December>> had assumed all tasks concerning the conduct of management formerly performed by I (GE/NL) Corps. From this time, 1 Division <<7 December>>, within RNLA, has been considered the most important supplier of operational readiness.

1 Division consisted of:

- Division Staff,
- NL-part of HRF(L) HQ,
- Air Maneuver Brigade (AMB),
- Mechanized Brigades,
- Division Combat Support Command (DCSC),
- Division Logistical Command (DLC).

The 2003 Budget Memorandum (Ministry of Defense, 2002: 64), besides specifying the total amount of available labor time (level 1 disclosure), also globally differentiates between types of labor as quantified in table 3 (level 2 disclosure).

1 Division 7 December (in: man training days)	Training/Exercise	Realization 2001	Expected 2002	Estimate 2003
AMB	VI			22,500
	VI			76,000
13 Mechanized Brigade	V			18,000
	Field training exercise			5,000
41 Mechanized Brigade	V			8,280
	V			24,440
43 Mechanized Brigade	V			27,760
DLC	IV			14,250
DCSC	V			39,100
Other training/exercise	I-IV			86,400
	I-IV			43,200
	I-IV			268,070

Total	560,000	580,000	633,000
Source: Ministry of Defense (2002: 64)			

Table 3 Level 2 disclosure: Differentiating between types of labor

Table 3, second column, acknowledges various levels of training and exercise. The lowest level (I) refers to individual military training. Above the level of the individual soldier, the Army distinguishes training and exercising at group (II), platoon (III), company (IV), battalion (V), and brigade (VI) level.

Because of the fact that labor time is allocated to measurable (clusters of) activities (i.e., level I-VI), table 3 could be interpreted as a level 3 disclosure. However, the 2003 Budget Memorandum (Ministry of Defense, 2002: 64) states, 'because battalions can be deployed during peace operations, and brigades are considered as platforms for peace-enforcing operations, training and exercising at the levels V and VI are disclosed separately'.

On account of this remark, we consider the information presented in table 3, a level 2 disclosure, as the 2003 Budget Memorandum does not aim to measure labor time for specific activities. Instead, it measures labor time allocated to peace-operations and non-peace operations. According to us, table 3 offers an idea of priorities attached to different tasks in organization units.

A level 3 Disclosure: OPCO

In 2003, 1 Division <<7 December>> is not mentioned anymore. The Operational Command (in Dutch: Operationeel Commando; OPCO) is introduced. The 2004 Budget Memorandum (Ministry of Defense, 2003a: 46) announces that, from January 1st 2004, OPCO will be operational. Moreover, within RNLA, OPCO is considered the main supplier of operational readiness. In 2004, OPCO consisted of:

- Staff,
- NL-part of HRF(L) HQ,
- Air Maneuver Brigade,
- Mechanized Brigades,
- Combat Support & Support Command (CSSC),
- Division Combat Support Command (DCSC),
- Division Logistical Command (DLC),
- Operational Staff

The available labor time within the above-mentioned organizational units is allocated to level II-VI training and exercising, as presented in table 4.

Type of unit	Man training days				Budget * €1,000s
	II/III	IV	V	VI	
HRF(L)HQ					
Staff	3 000			2 000	275
Staff Support Bn	5 000				275
CIS Bnt	5 000				275
Special Ops Staff	170				9
Special Forces Coy	30 533	6 241			2023
Core Staff Log Bde				1 032	57
Core Staff Engineers Bde			600		33
11 AMB					
Bde Staff	3 110		3 350	2 000	465
Infantry Bn	46 890	28 780	30 510		5 840
Mortar Coy	2 200	1 300			193
Engineer Coy	2 200	1 300			193
Air Defense Coy	2 200	1 300			193
Other units	6 700	10 000			919
Mechanized Brigades					
Bde Staff	2 600		2 600	2 000	396
Mech Inf Bn	32 238	32 044	10 100		4 091
Tank Bn	20 142	10 440	4 500		1 930
Brig Recon Sqn	17 900	3 038			1 152
Field Arty	25 256	9 259			1 898
Mech AD Arty	9 000	4 350			734
AE Coy	14 907	4 658			1 076
Other units	38 461	13 673			2 867
CSSC					
ISTAR module	13 445	4 415			982
AE Bn	6 474	2 100			472
Engineer Bn	5 554	6 520	6 200		1 005
Bridge Coy	2 400	1 300			204
NBC-Coy	2 100	1 100			176
Recon Bn	3 038	8 805			651
DLC					
Supply-Transport Bn	7 867	4 252	320		4
Mat Services Coy	19 718	7 603	320		1 520
Medical Bn	20 616	6 197	320		1 492
National Reserves Bn					11 800
NL-part CIMIC Group North (CGN)					28
Total budget					43 908
Source: Ministry of Defense (2003a: 48)					

Table 4 Level 3 Disclosure: Labor time for activities

In table 4, columns 1-5, in great detail, describe the amount of labor time the organizational units belonging to OPCO, have available for the various level of training and exercising. In our view, the information in table 4 represents a level 3 disclosure: labor time is allocated to measurable activities.

The last column in table 4 represents the opportunity costs of allocating labor time to the different activities concerning training and exercising. This column provides an insight into the financial impact of training and exercising. Please note, the exceptional positions of the National Reserves Battalion (NRB) and the NL contribution to CIMIC [Civil Military Cooperation] Group North (CGN). According to the information presented in table 4, the NRB, while refraining from training and exercising, costs about €12 million, whereas, CGN takes part in the training and exercising, with seemingly no financial consequences to the Dutch tax payers.

OPCO still Alive and Kicking: A Level 4 Disclosure?

The information presented in table 5 is derived from the 2004 Annual Accounts (Ministry of Defense, 2005: 38-39). The 2004 Annual Accounts present a variance analysis relating the budgeted labor time (of table 4) to actual labor time spent within OPCO in 2004 on training and exercising.

Type of unit	Man training days						Amounts * €1000s		
	II/III Realization	IV Realization	V/VI Realization	Total Realization	Total Budget	Variance	Bud- get	Real- ization	Vari- ance
HRF(L)HQ			9215	42693	53576	-10883	2947	2349	- 598
Staff	31173	2305	1500	5033	5000	33	275	277	2
Staff Support Bn	3533			6067	5000	1067	275	334	59
CIS Bn	6067			6357	5000	1357	275	350	75
Special Ops Staff	5607	750		120	170	-50	9	7	- 2
Special Forces Coy	120			17241	36774	-19533	2023	948	- 1075
Core Staff Log Bde	15686	1555	7315	7475	1032	6443	57	411	354
Core Staff Engr Bde	160		400	400	600	-200	33	22	- 11
AMB	10476	33125		53561	141840	-88279	7803	2946	- 4857
Bde Staff	120			120	8460	-8340	465	7	- 458
Infantry Bn	6000	30670	9960	46630	106180	-59550	5840	2565	- 3275
Mortar Coy	975	460		1435	3500	-2065	193	79	- 114
Engineer Coy	504		9960	504	3500	-2996	193	28	- 165
AD Coy	693	425		1118	3500	-2382	193	61	- 132
Other units	2184	1570		3754	16700	-12946	919	206	- 713
Mechanized brigades	55078	57333	28990	141401	257166	-115765	14144	7777	- 6367
Bde Staff	2754	300	60	3114	7200	-4086	396	171	- 225
Mech Inf Bn	12885	14786	23362	51033	74382	-23349	4091	2807	- 1284
Tank Bn	6021	6709	3480	16210	35082	-18872	1930	892	- 1038
Bde Recon Sqn	6886	4640		11526	20938	-9412	1152	634	- 518
Field Arty	5730	10	298	6038	34515	-28477	1898	332	- 1566
Mech AD Arty	3564	3570		7134	13350	-6216	734	392	- 342
AE Coy	6079	16800	1680	24559	19565	4994	1076	1351	275
Other units	11159	10518	110	21788	52134	-30347	2867	1198	- 1669
CSSC	8046	15020		30161	63451	-33290	3490	1650	- 1840
ISTAR module	2142	2640	7095	5282	17860	-12578	982	291	- 691
AE Bn	1620	1250	500	7245	8574	-1329	472	389	- 83
Engineer Bn	1305	5810	4375	8115	18274	-10159	1005	446	- 559
Bridge Coy	861	2130	1000	2991	3700	-709	204	165	- 39
NBC-Coy	960	2440		4620	3200	1420	176	254	- 78
Recon Bn	1158	750	1220	1908	11843	-9935	651	105	- 546

DLC	28374	25420		57449	67213	-9764	3696	3160	-536
Supply-Transport Bn		12865	3655	25214	12439	12775	684	1387	703
Mat Services Coy	13860	10905	1900	26520	27641	-1121	1520	1459	- 61
Medical Bn	4065	1650	1755	5715	27133	-21418	1492	314	-1178
NRB	188273			188273		118273	11800	10355	-1445
NL-CGN	532			532	528	4		29	29
Totals	321952	133203	58915	514070	583774	-69704	43880	28266	-15614

Source: Ministry of Defense (2005:38-39)

Table 5 Level 4 Disclosure? Variance analysis

In table 5, columns 2-4, describe the amount of labor time actually spent on the various activities related to training and exercising. Columns 5-7 relate the total hours worked to the total hours budgeted. As table 5 (column 7) shows the analysis is negative in most cases. This means, the total amount of work is less than budgeted. Columns 8-10 transfer the so-called man training days to financial entities. The number at the bottom right entails a negative amount of about €16 million.

This number corresponds with 69,704 hours less training and exercising than originally budgeted. The 2004 Annual Accounts explain the variances in general terms, 'due to the operational deployments during 2004 the training and exercise program has been adjusted. Also, vacancies and the need for unforeseen support have caused adjustments to the plans. Thus, the number of realized man training days lags behind the budget. This rather large adjustment has been partly compensated for by non-budgeted man training days assigned to the National Reserves Battalion' (Ministry of Defense, 2005: 39).

A level 4 disclosure is not so much about analyzing variances as such, but, rather about analyzing variances of standardized work processes. By means of standardized normative values, it becomes possible to diagnose the degree of efficiency by which such work processes have been conducted. The question remains whether the measurable activities stated in table 5 are standardized measurable activities.

On account of military experience, we presume level I-IV training and exercising to be standardized. Level V-VI training and exercising, on the other hand, often prove to be less standardized. Therefore, diagnosing the efficiency should not pose to be any problem regarding training and exercising at levels I-IV. However, such a diagnosis has not been made. For this reason, we doubt whether the Annual Accounts represent information at a level 4 disclosure.

In the timeframe following the 2004 Annual Accounts, information on the relationship between activities and labor was disclosed in the 2005 Budget Memorandum (Ministry of Defense, 2004a: 45). The information disclosed corresponds with the disclo-

sure level in the Annual Accounts of 2004. However, in the 2006 Budget Memorandum no quantitative disclosures concerning the relation between labor time and activities can be found. We would like to suggest further research into this area.

Summary and Conclusion

The introduction of transfer pricing under the new governance concept of the Dutch Department of Defense will enhance the need for improved performance controls in the operational units of the department – the ‘consumers’ of the priced internal services. In the absence of reliable result controls, we argued that action controls based upon a disclosure of the opportunity costs implied in the use of resources should prevent the control losses otherwise incurred. In the past years we have seen some efforts being made to provide for such a disclosure in the Defense Budget Memoranda and Annual Accounts.

To our regret, in the 2006 Budget Memorandum those efforts to open the black box of (training) activities in the department’s operational units are discontinued. Presumably, the benefits from the additional information are considered insufficient to justify its costs. In our view, however, the potential to apply the disclosed information to decision making in the department had not yet been actualized. Specifically, no attempt has been made to diagnose the variances disclosed in the accounts in terms of the decisions underlying the budgets. Maybe the department’s centralized management does not believe in this potential for an improved management over its mission centers – but we doubt that it will overcome the complexities resulting from its new integrated governance structure without the increase of transparency intended in the disclosure of operational activities.

Notes

1. This section is based on Mol and Beeres (2005)

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vanaf hier is het nieuwe tekst