



PUBLIC MANAGEMENT

OCCASIONAL PAPERS

No. 22

USER CHARGING FOR GOVERNMENT SERVICES

Best Practice Guidelines
and Case Studies



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FOR GOVERNMENT SERVICES:
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AND CASE STUDIES

ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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FOREWORD

Member countries are increasingly financing government services through user charging. The objective of user charging policies generally includes some or all of the following:

- reducing budget deficits;
- making the cost and benefits of services more visible to their users and government organisations providing services;
- relieving the general taxpayer of costs properly borne by the users who benefit directly from a service;
- imposing discipline on user demand for services;
- fostering more business-like, customer-oriented management and generally improving the financial and service performance of the supplier; and
- encouraging the development of markets and competition.

Senior Budget Officials requested the OECD Secretariat to undertake a study of user charging in Member countries and to identify the key factors for implementing effective and efficient user charging systems. The Secretariat was assisted by a Panel of Experts in this study. As part of their work, Panel members prepared case studies of specific activities that were subject to user charging in their respective countries.

The Best Practice Guidelines were reviewed and endorsed at the 1997 annual meeting of Senior Budget Officials and were subsequently approved at the Autumn 1997 meeting of the Public Management Committee.

The Guidelines are not designed to identify what activities should be subject to user charging. They are designed to identify best practices for implementing user charges once the decision to impose them has been made.

The Guidelines were prepared by Jon Blondal of the OECD Public Management Service, who also edited the case studies. Technical assistance was provided by Jocelyne Feuillet-Allard and Judy Zinmann.

This report is published on the responsibility of the Secretary-General of the OECD. The views expressed in the case studies are those of the authors and do not commit or necessarily reflect those of governments of OECD countries.

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BEST PRACTICE GUIDELINES FOR USER CHARGING FOR GOVERNMENT SERVICES

BEST PRACTICE No. 1:

Clear legal authority

- It is important that the legal authority for an organisation to charge for its services be clearly defined.
- This authority should be a general framework for the application of user charges and should not set the precise amount of the charges to be applied. This allows the charges to be adjusted without further legislative authorisation.

The Finnish Constitution explicitly requires all user charges to be authorised by legislation. In 1992, the Finnish Parliament enacted the *User Charging for Government Services Act*. This Act provides general principles for what types of government services should be subject to charge and the basis upon which charges should be calculated. Within the limits set by this Act, the government is free to introduce user charges. Each ministry decides which of its services are to be subject to charge and then issues regulations to legally bring the user charges into effect.

From Finnish Case Study

BEST PRACTICE No. 2:

Consultation with users

- Consideration should be given to holding consultations with users when a charge is being introduced or significantly altered. This serves to communicate to the users the rationale for the charges and avoid misunderstandings. Furthermore, the views of the users can be useful in designing and implementing an effective and efficient charging system.
- It needs to be made clear to users that these consultations are a forum for discussing the best manner of implementing user charges rather than whether user charges should be implemented. The consultations should proceed rapidly with a date for their conclusion set in advance.
- Questions concerning the implementation of user charging systems will most frequently be directed to front-line staff. The rationale for user charging and the operation of the system should therefore be clear to front-line staff.

The United States Nuclear Regulatory Commission has recently become fully financed by user charges. These user charges are set each year by regulations issued by the Commission. Prior to the adoption of these regulations, the Commission seeks comments from interested parties by first issuing "proposed regulations" for the charges it intends to set. Only after evaluating the comments received on these "proposed regulations" does the Commission issue its final regulations for user charges.

From United States Case Study 1

BEST PRACTICE No. 3:

Determine full costs

- The full cost of providing each service that is subject to a charge should be determined. This costing should be carried out regardless of whether the intention is to recover fully or only partially the cost of providing the service. If the intention is not to fully recover costs, this information will make transparent the degree of subsidy involved in providing the service.
- Full costs include not only the direct costs of the service, but also costs shared with other activities (joint costs) and such non-cash costs as depreciation and cost of capital.
- Determining full costs can be complex, especially when joint costs must be allocated. The effort made in costing should be commensurate with the scale of the service being charged for. In the case of small scale services, it may be appropriate to use reasonable estimates for allocating joint costs rather than elaborate cost accounting systems.
- This costing should be reviewed periodically to ensure its accuracy.

The United States Social Security Administration is one of the world's largest information technology operators. On average, it handles 21 million transactions per day. In 1988, it decided to institute a cost attribution system whereby the cost of each transaction would be linked to the user of the service. Previously, all information technology costs had been attributed in total to the Office of Systems Operations. Extensive cost accounting systems were put in place. In the early stages, it was only possible to attribute four-fifths of costs to any specific user. Through improved systems, it is now possible to attribute nearly all costs to specific users. As a result, the management of this function has improved.

From United States Case Study II

BEST PRACTICE No. 4:

Effective and efficient collection system

- An effective and efficient system for collecting user charges is critical for the credibility of any user charging regime. Responsibility for collection should rest with the organisation levying the charge. This does not preclude an organisation from contracting with a third party for collection services.
- In cases where payment cannot be demanded in advance of, or simultaneously with, the delivery of service, invoices should be sent out in a timely manner with clear deadlines for payment. Invoices should be clear and simple, providing sufficient but not overdetailed information.
- Efforts should be made to minimise collection costs and any inconveniences associated with the collection process.
- Non-payment of user charges should be followed up immediately. Appropriate enforcement mechanisms should be in place prior to the charge coming into effect. Recourse to these mechanisms needs to be clearly defined and transparent. The level of non-payment of user charges should be transparent. If a user charge is so small that it will not justify collection action, then the form of the charge should be considered for change.

The Barcelona Fire Department collects user charges for certain of its non-emergency services. It experienced significant problems with their collection as only 20-30% of invoices were actually paid. Various factors account for this. Responsibility for collection was unclear, the processing time for issuing invoices was lengthy, the invoices themselves were complicated, and enforcement mechanisms for non-payment were very limited. Efforts have now been made to rectify this situation and improve collection.

From Spanish Case Study

When Germany instituted a time-based road user charging system for highway use, the Euro-Vignet, it sought the co-operation of neighbouring countries in introducing a single system that would be jointly operated in a uniform manner across the countries. This minimised inconveniences to drivers and streamlined the collection process for the user charges.

From German Case Study

BEST PRACTICE No. 5:

Improve and monitor organisational performance

- Charging users directly for the services they receive can be a powerful management tool for improving organisational efficiency and service quality. Leadership by top management is required to fully reap these benefits.
- Setting specific financial, service quality and other performance targets for organisations, in conjunction with user charging systems, is important. The performance of organisations should be monitored on a regular basis to ensure appropriate levels of efficiency and service quality.
- Organisations should regularly and systematically solicit the views of service users in order to better understand their service requirements.
- It should be recognised that user charging may require a new set of skills for many government organisations. This should be recognised and properly planned for. This is especially relevant in the fields of human resource management and information technology systems. Sufficient time and resources need to be devoted to developing and maintaining these skills.

Client service improved dramatically when the Attorney-General's Legal Practice in Australia moved to a user charging regime. It now conducts regular surveys of clients and has established client focus groups. This has enabled the Legal Practice to customise its service delivery to the particular needs of clients. The Legal Practice regularly benchmarks its operations against "best practice" in the private sector in order to improve performance. The move to user charging also had a substantial positive impact on staff. An extensive programme was put in place to upgrade the commercial skills of staff and to generate and sustain the cultural change needed to successfully adapt to the new commercial environment. Surveys of clients and staff repeatedly confirm the improved performance of the Legal Practice.

From Australian Case Study

The Ordnance Survey sells maps and related data services to government organisations, utilities, commercial organisations and the general public. A number of consultative committees representing some 160 organisations with an interest in Ordnance Survey services have been established. These committees comment on the coverage, availability, level of detail, pricing, etc. of Ordnance Survey services. The Ordnance Survey takes the views of these committees into account as appropriate and to the extent feasible. Soliciting the views of clients in this manner has allowed Ordnance Survey to better tailor their services to the needs of the users.

From United Kingdom Case Study

BEST PRACTICE No. 6:

Treatment of receipts

- Consideration should be given to the respective organisation retaining the proceeds of any user charges it collects. Such revenue should be classified as offsetting receipts (negative expenditures), as appropriate. This serves to reinforce the notion that users are paying a charge in return for a specific service and that responsibility for revenue management rests with the organisation itself.
- Consideration should be given to adopting flexible budgetary arrangements for organisations financed by user charges which would allow them to respond to increased service volume by permitting commensurate increases in expenditure and user charging receipts.

At the same time as user charging reforms came into effect in Finland, a new system of net budgeting was introduced. This allows government organisations to finance increased expenditures with commensurate increases in user charges, without having to seek prior parliamentary approval. The budgeting system had previously operated on a gross basis, requiring parliamentary approval for all such changes to the budget. This reform has enhanced the financial and operational performance of government organisations.

From Finnish Case Study

BEST PRACTICE NO. 7:

Appropriate pricing strategies

- Wherever relevant, pricing should be based on competitive market prices.
- In other cases, pricing should be based on the principle of full cost recovery for each service unless there is a clear rationale for less than full cost recovery. This serves to enhance an efficient allocation of resources in the economy.
- Simplicity in the fee structure is important. If substantially the same service is provided to a group of users, it can be appropriate to charge a uniform fee notwithstanding some variability in the cost of servicing individual users.
- If certain services are attributable to a class of users rather than individual users, it may be appropriate to charge each user within that class a fee to recover the costs of those services. It should, however, be recognised that this may involve the loss of some of the benefits of user charging, as the link between the charge and the service provision is less direct.
- Consideration should be given to differentiated prices for peak and off-peak periods in order to spread demand for services. Similarly, consideration should be given to offering priority service for a premium price.
- Introducing user charging for one service can have a significant impact on the demand for substitute services if they are not subject to a similar charge. Consideration therefore needs to be given to also charging for such substitute services.

The US Nuclear Regulatory Commission operates on the basis of full cost recovery. It assesses two types of user charges. First, it assesses fees to recover the costs of providing individually identifiable services to specific users. Second, it assesses fees to recover the costs of services that are attributable to classes of users rather than individual users. The Commission uniformly allocates these costs to each user within that class and charges each user a commensurate annual fee.

From United States Case Study I

When Statistics Sweden receives orders for specialised information contained in its computerised data systems, it offers differentiated prices based on the priority of the order. Premium prices are charged for orders that are required to be processed immediately; reduced prices are charged for orders that can be processed at night and at other times when demand on the data systems is low.

From Swedish Case Study

When the Icelandic Ministry of Health introduced user charges for outpatient clinical services, the number of one-day inpatient hospital stays increased noticeably as these services continued to be provided free of charge. This unintended effect was corrected when similar charges were introduced for inpatient services.

From Icelandic Case Study

BEST PRACTICE No. 8:

Recognise equity considerations

- Consideration should be given to reduced charges for users where full cost recovery would represent an excessive financial burden on individual users. This may be especially relevant to

lower-income individuals, smaller entities, users located in remote areas, and heavy volume users of services. The criteria for applying reduced charges should be clear and explicit.

- When a user charge does not represent full cost recovery, the degree of subsidy should be transparent to those providing and monitoring the service.
- It should be recognised that measures through the tax and benefit system may be a more efficient means of ensuring equity than reduced charges.

When Iceland introduced user charges for primary and specialist doctor services, it recognised that this would represent an unreasonable burden for lower-income individuals. As a result, it introduced discount cards that gave users access to these services for one-third of the regular charge.

From Icelandic Case Study

When Canada introduced user charges for air traffic control services, it considered that charging all aircraft the same cost-based charges would not be appropriate as the value of these services is much greater for a 400-seat Jumbo jet than a 15-seat commuter aircraft. As a result, the user charges applied for these services bear a direct relationship to the size of the aircraft although the cost of providing the service varies little with aircraft size.

From Canadian Case Study

Luxemburg takes the financial resources of each resident into account when user charging for retirement and nursing home services. If the resident's monthly income is less than or equal to the user charge, then the user charge is reduced accordingly and the resident left with a standard amount as pocket money. Special arrangements are also in place to take account of any assets owned by the resident.

From Luxemburg Case Study

BEST PRACTICE No. 9:

Ensure competitive neutrality

- If an organisation is supplying a commercial service in competition with the private sector while retaining a monopoly provision of another service, care needs to be taken to ensure that the monopoly service is not subsidising the commercial service.
- When pricing such services, care needs to be taken to ensure that their costing is accurate and that they incorporate all items of cost faced by private sector entities. For example, government organisations may be exempt from various taxes and enjoy free provision of certain support services provided by central agencies.

In Finland, a major effort is made to ensure competitive neutrality. Government organisations are restricted in what commercial services they can offer; all such services must be closely related to the organisation's basic statutory function. Special provisions apply to the costing of such services to ensure their accuracy and completeness. Compliance is overseen by the Office of Free Competition which can order government organisations to revise their prices.

From Finnish Case Study

USER CHARGING AT THE AUSTRALIAN ATTORNEY-GENERAL'S DEPARTMENT

by

Dale Boucher

Australian Government Solicitor, Attorney-General's Department

OBJECTIVES

In February 1991, the government agreed that the Department should implement a user pays system for legal services from 1 July 1992, noting that certain legal services would still need to be provided only by the Attorney-General's Department. The submission before the government noted that the introduction of the user pays system would give departments greater influence over the level, timeliness, extent and nature of legal services they would receive from the Legal Practice and that resources would be matched with demand and decisions made both by the client and by the Attorney-General's Legal Practice (the Legal Practice) in a competitive environment.

In order to meet these challenges, the Legal Practice needed to undertake the following tasks:

- improve client services through the provision of high-quality professional services that addressed the holistic needs of the client, not purely the solution to a legal issue;
- improve the allocation of resources and its overall financial management of both physical and financial resources;
- improve delivery arrangements through a more efficient use of available resources.

The arrangements approved by government for the introduction of commercialised service delivery were set out in formal *Guidelines for the Provision of Government Legal Service* issued in February 1991.

GOVERNMENT POLICY ON USER CHARGING

Previous governments had policies promoting user charging, but this was not required on a whole-of-government basis. There has been a requirement that government services be provided on a value-for-money basis. This policy has required that Secretaries to Departments satisfy themselves that services are being provided on a cost effective basis. On assuming office, the present government commissioned a report (National Commission of Audit Report to the Commonwealth, June 1996) to examine aspects of what the Commonwealth government does, how it does it, how its activities are recorded and the implications for its financial position.

The report, which is still under consideration by the government, made the following comment with respect to value-for-money in delivering programmes:

"In the private sector, service providers must compete for clients. This market competition ensures that service providers focus on the efficiency of their activities. Suppliers change the way they produce their outputs in response to changes in input prices. By making the delivery of Government programs contestable, similar gains in efficiency can be achieved. Contestability does not necessarily imply contracting out. It does imply

competition between public and private sector providers. Price signals ensure that demand responds to the cost of providing particular goods and services."

The charges levied by the Legal Practice relate mainly to internal charging in that, under the Australian Constitution, the Legal Practice cannot provide services to non-Australian government departments and agencies. In terms of the fees charged to its clients, the level of the fees is determined by the cost structure of the Legal Practice, the requirement that it provide a rate of return to the government on government-owned equity in the Practice, and that it compete against private sector providers. There is no legislation prescribing either the rates or the methodology for determining the fees levied by the Legal Practice.

IMPACT ON USERS

The introduction of user charging has, in the main, been very positive. Client surveys have indicated that the Legal Practice has changed its attitude in terms of the delivery and organisation of its legal services: instead of being reactive and prescriptive, it attempts to understand the needs of the client and in so doing adopt a holistic approach with respect to legal advice.

User charging has required a change in attitude on the part of clients in that they are now required to place a value on the legal advice required and also to incorporate the seeking of legal services in assessing priorities with respect to expenditure of available resources. Previously, clients had automatic access to the Legal Practice and could place unlimited and, on some occasions, uninformed demands for legal advice as the service was free and thus did not need to compete with other priorities for the expenditure of client monies.

The Legal Practice recognised that the introduction of user charging would have implications for its clients and so developed a marketing strategy. In 1990, work was commenced to develop a corporate image, promotional material and marketing strategies for the Legal Practice.

Part of the marketing strategy was to conduct client surveys on the performance of the Practice and their service needs. These surveys enabled the Practice to customise its service delivery to the particular needs of clients. Part of this strategy was the development of the National Client Service Manager programme under which key clients, both in financial and strategic terms, had allocated to them a senior member of the Practice as their Client Service Manager. This officer is supported by staff in all Treasury Centres and acts as the primary point of contact between the client and the Practice in terms of the client's legal needs and the quality and price of the legal services provided.

Memoranda of Understanding, which set performance standards by which the Practice would be measured, were developed with a number of clients. This process placed the Practice in a good position when clients were given choice and sought to establish tender panels.

The marketing strategy also had an internal focus in developing a cultural change within the organisation in terms of staff needing to become more client-focused in addition to maintaining their professional independence. Staff surveys have confirmed a positive impact with respect to the internal marketing strategy.

Experience to date is that there has not been a fundamental change in financial terms with respect to referral patterns of clients; however, the relative share of some clients has changed as old matters are finalised and new matters become active. For example, a client may have a major litigation case on and obviously, as this case draws to a conclusion, the financial value of that client declines until a similar matter arises.

Some areas of work remain tied to the Practice and are charged for as the overall benefits to the Commonwealth exceed the benefit to the individual client in allowing choice in this area. The question as to whether this "charge-no choice" category should remain is currently under investigation. Experience to date would indicate that, from a financial perspective, the untying of this work would not compromise the financial performance of the Practice; however, the public interest is very persuasive for

keeping this work tied while the charging philosophy ensures that clients make the appropriate decisions before seeking advice from the Practice.

In summary, the evidence to date would indicate that clients are satisfied with the new arrangement, especially as it offers them greater control in the level and price of legal services that they require from the Practice and also allows them the opportunity to seek advice from alternative suppliers in a number of cases. Thus, they are in a position to make a judgement on issues such as value-for-money. Some clear signs of a desire for greater freedom of choice are evident but these do not reasonably signal dissatisfaction with current service levels.

ORGANISATIONAL IMPACT

The government agreed that funding during the period 1992-93 to 1994-95 would be budget neutral in that departments would be fully compensated for fees charged by the Legal Practice. This budget neutrality was guaranteed in that the level of funds that would have been allocated to the Practice in accordance with standing budget funding arrangements were re-allocated to clients and quarantined so that they could only be expended on services provided by the Legal Practice. In order to meet these challenges, the Legal Practice needed to undertake the following tasks:

- improve client services through the provision of high quality professional services that addressed the holistic needs of the client, not purely the solution to a legal issue;
- improve the allocation of resources and its overall financial management of both physical and financial resources;
- improve delivery arrangements through a more efficient use of available resources.

Prior to 1 July 1994, the Practice was not required to meet any rate-of-return or dividend targets. However, in November 1994, the then Attorney-General and Minister for Finance signed a Memorandum of Understanding (MoU) concerning the Financial Framework for the Legal Practice effective from 1 July 1994. This MoU stipulated the debt, which was to be an interest-only loan, and equity figures for the Practice and also the dividend rate of return and the rate of interest to be paid on the debt. The target rate of return is based on the 10-year Department of Treasury bond rate as at 31 March of the year before the current financial year plus two percentage points. The level of dividend is subject to annual negotiations starting from the principle that 50 per cent of the rate of return will be payable as a dividend to the Australian Consolidated Revenue Fund with the balance being retained by the Practice.

As indicated above, the financial objectives for the financial year 1992-93 and 1993-94 were to break even. The recorded financial position for 1992-93 was an operating profit of \$1.8 million, which was slightly better than break even. In 1993-94, the Practice recorded an operating loss of some \$3.0 million.

Since 1 July 1994, the Practice has paid or made provision for dividends totalling \$8.6 million. Compared to the minimum requirement as prescribed by the MoU, the dividend return to the Commonwealth is almost double and in excess of the expected rate of return established by the Commonwealth for Government business enterprises.

For internal management purposes, the Practice is broken down into state and territory-based Treasury Centres plus a Central Office. Each Treasury Centre is headed by a Treasury Manager who is responsible for achieving predetermined revenue and profitability targets in accordance with the Practice's requirement to make a dividend payment to the Commonwealth and to maintain the asset base in order to guarantee the future viability of the Practice. The Practice prepares fully accrual financial statements at the end of each month on the financial performance of individual Treasury Centres. These reports, together with an independent assessment, are considered by the Legal Practice Management Committee and if necessary, strategies are developed to ensure the financial viability of the Practice.

The financial performance at the individual Treasury Centre level has been variable since July 1992; however, in terms of reporting trends in performance, the most appropriate time period is 1994-95 and

1995-96. This period is suggested as being relevant because, since 1 July 1994, the Practice has been required to generate a return on the assets held by the Practice and also the pricing regime which applied during this period reflected, in some part, the different cost structures of each of the Treasury Centres and the market in which the Treasury Centre operated. The trading performance of the Practice has been positive since July 1994, and programmes are in place with respect to those Treasury Centres that needed to improve their performance.

In preparing its 1995-96 budget estimates, the Practice had assumed that, with the introduction of user choice, clients would seek to test the market by obtaining services from private sector suppliers. This did not eventuate to the extent anticipated and the Practice only incurred a marginal loss in billable revenue compared to its original estimate. The success of the Practice in maintaining its market share was a consequence of a number of initiatives instituted by the Practice prior to the introduction of user choice. The major initiatives were:

- the provision of outposted officers to a number of clients; and
- the development of a National Client Service Manager (NCSM) programme with respect to those clients who account for more than 80 per cent of the Practice's revenue.

As the Practice moved through the three-year transition period from July 1992 to June 1995, it was recognised that, in order to be competitive, the Practice needed information against which it could compare its current performance with what was best practice in private sector legal firms. The Practice engaged an Australia-based firm with more than 20 years' extensive experience with the Australian legal profession, to provide it with benchmark data, recognising that in certain areas, especially partner remuneration, private sector benchmarks were inapplicable with respect to the Legal Practice.

The subsequent report set standards for the various elements of the Practice in terms of ratios of expenditure to revenue; the distribution of staff across various categories, *e.g.* the percentage of staff dedicated to secretarial, personal assistant, library and information technology duties; and the ratio of staff per work author.

One of the key elements in the benchmarking study was the ratio of salaries, superannuation and administrative expenditure to fees billed, and, since the benchmark was established, the Practice has improved every year and still needs to make further marginal improvements before achieving the objective of best practice. The performance for each individual Treasury Centre has varied, in part because the fixed nature of our employment costs, *i.e.* in a number of states we pay our staff more than the market because of the Public Service-wide employment terms and conditions, and we are unable to recover these increased costs through higher fees because such an arrangement would result in a substantial loss in revenue. The Practice reports to the Legal Practice Management Committee on the Treasury Centre performance against these benchmark figures each month.

The Practice has recently conducted a further review of the cost of providing support services compared with best practice. The recommendations arising from this review are currently under consideration, and it is expected that measures will be introduced, resulting in productivity improvements and an overall increase in profitability.

The Practice has also participated in a number of review exercises conducted within the Public Service aimed at benchmarking processes and procedures. As a consequence of these exercises, it has taken the opportunity to review its own operational arrangements and has also analysed those arrangements in non-Commonwealth agencies with a view to implementing more efficient and effective service delivery.

The Practice has only been able to measure the productivity of individual fee earners since 1 July 1994 and, on average, the level of productivity improved between 1 July 1994 and 30 June 1996. The current Agency Agreement between the Department and the staff Union provides a means for further improvement to occur.

A number of the activities mentioned under the benchmarking heading are also aimed at improvements in productivity and the overall level of support costs as a percentage of revenue has declined (28.4 per cent to 22.8 per cent) since 1 July 1993, while maintaining appropriate service levels.

The Practice has also established targets with respect to aged debt and work-in-progress management, with a target of no debt outstanding for more than 90 days and time being billed within 60 days. There has been substantial improvement in the overall level of debt outstanding since user charging commenced in 1992-93. On average, the Practice's bills are paid within 60 days and time is billed within 50 days.

PUBLIC POLICY OBJECTIVES

The introduction of user charging with respect to legal services did not compromise public policy objectives, as policy work continued to be budget-funded and exempt from the user charging regime as set out in the directions. The decision to exempt policy work from charging was endorsed by the Australian government as a consequence of a review conducted in 1994.

The Practice has not been faced with a conflict of interest issue since it began user charging; however, it does conduct conflict searches before accepting a request from a client to ensure that a legal conflict does not exist between that client and another client for whom the Practice may already be acting.

ABILITY TO PAY

There is no specific group of users that has a recognised difficulty in paying for the service. There have been occasions, however, where clients have sought to argue that the legal service which they are seeking should be classified as "no charge". This approach is obviously driven by the financial incentive on the client to reduce expenditure on legal services so that funds are available to finance other activities. This conflict is resolved by reference to the guidelines. There have been some examples where a client has sought to argue that the matter is in the "no charge" category but when it has been pointed out and ultimately agreed that it is one for which fees should be levied, the client has then withdrawn the request for legal advice. This was one of the intentions of the introduction of user charging, *i.e.* that there would be a more appropriate decisionmaking process applied by the client.

COST STRUCTURE

The fee structure was originally established with regard to the level of funding provided by the government to enable the Legal Practice to discharge its statutory obligations. These costs were then adjusted to take into account depreciation charges associated with the capital assets of the Practice, superannuation and long service leave liabilities, interest on the loan held by the Commonwealth in the Practice. (In establishing the Practice, a commercial approach was adopted in that, as with any other commercial organisation, there would both be assets and loans or debt.) In terms of the Practice, it was initially agreed that the Practice would not be required to make a dividend payment with respect to the assets or equity held by the Commonwealth in the Practice, but that it would pay interest on the loan and the loan would not be repayable in the short to medium term.

PRICING STRATEGIES

In July 1992, the Practice had a uniform pricing policy across Australia that was intended to cover the Legal Practice's complete costs against the background of budget neutrality referred to above. The fees were set at seven levels of hourly rates.

From 1 July 1994, the Practice introduced a pricing policy based on a regional hourly rates method to take into account local variable costs such as staffing levels and property operating expenses. This saw a range of fees set at the individual Treasury Centre level.

While the Practice has an hourly rate policy, it is flexible in negotiating fee schedules with clients and, as a consequence, has a wide range of fee schedules. The options include:

- fixed fee arrangements for specific projects;
- specific arrangements for outposted officers;
- fees for dedicated teams to a particular client;
- transaction-based fees whereby a matter is broken down into discrete elements with a fee schedule applying to each element and the progress of the matter from one stage to the next is determined by the client; and
- fees prescribed by the court scale.

An important element of the pricing policy is that it includes a number of items that are billed separately by some private sector firms, *e.g.* telephone calls, photocopying and facsimiles.

COLLECTION SYSTEM

The billing arrangements are part of the Legal Practice's computer system, and for those clients with whom specific arrangements have not been made, the following procedures apply:

- On a specified date each month, the system produces a billing guide where \$500 worth of fees and disbursements have been incurred on behalf of the client or no time has been recorded on the matter for a period of 60 days.
- This billing guide is reviewed by the work author, who will annotate it with any reason as to why the amount on the guide should be varied and then refer the guide to his or her supervisor, who will then authorise the preparation of the final bill. The final bill is then forwarded to the instructing officer within the client department together with a covering letter of value.
- The system then records the client as a debtor and produces regular reports of unpaid accounts that are then followed up with the client if the account is not settled within 30 days.

Where specific arrangements have been agreed with the client, a tendency has been to develop a computerised billing system that incorporates all the information contained in the above manual system onto a disk, which is forwarded to a central point within the client department. Payment is then made centrally and the Practice distributes the proceeds to each individual Treasury Centre.

The Practice has not kept explicit details of costs incurred in administering the user charge regime; however, our clients had always been required to pay accounts received from other service providers and the billing arrangements instituted by the Practice did not require any additional administrative costs. From the Practice's perspective, the billing arrangements were part of the overall computer system and did not in themselves increase the operating costs.

KEY TRANSITIONAL ISSUES

The key transitional issues are associated with managing the cultural change within the organisation as it moves to develop a client focus and ensuring that the clients are fully aware of the rationale for the change and the implications it has for them in terms of their own management philosophy and administrative arrangements. In this regard, the Practice considers that the quarantining of funds was an important element in ensuring a stable transition from budget-funded arrangements to a fully competitive environment and also provided some certainty for clients who had initially expressed concerns that the level of funding may not necessarily reflect their ongoing need for legal services.

Part of the cultural change process included the development of a quality programme for the Legal Practice. In the early 1980s, the legal services areas of the Attorney-General's Department developed internal Procedural and Quality Standards for servicing clients. The Standards were the initial step in the development of a quality management programme for the legal services area of the Department. The programme had an inward focus designed to change the internal culture.

Since 1989, when the transition to user charging began, the Legal Practice has been progressively aligning itself with its market and preparing itself for competition within that market. This has entailed a significant change in the legal culture of the Practice. Today, the focus is very much on clients, their needs and the ability of the Practice to deliver quality legal services and products in a competitive environment. Best practice is determined by our clients.

In 1993, the Legal Practice decided to embark on the Quality Service Programme. The Program is built around servicing and exceeding the needs and expectations of clients. The framework for the Program is the Australian Quality Council's Quality Wheel of Continuous Improvement and the Quality Standard ISO 9001 – Model for quality assurance in design, development, production, installation and servicing. The Program has enabled the Practice to:

- differentiate itself from its competitors;
- improve client service and hence client satisfaction;
- enhance the quality of services;
- eliminate wasteful procedures and inefficiency, thus reducing costs;
- improve productivity;
- increase flexibility in meeting market demands;
- develop greater internal cohesion and teamwork.

In 1994, the Practice conducted, in consultation with a number of its key clients, a strategic planning session which, *inter alia*, identified four key result areas:

- client focus;
- leadership;
- strategic planning; and
- the concept of One Practice.

In the area of client focus, the Practice identified and implemented a number of programmes including the National Client Service Manager programme, the concept of outposted officers and Practice Groups and Practitioner Forums. The Practice has conducted focus groups with some of the major clients to more clearly understand their needs and expectations.

Under leadership, the Practice has developed a Leadership Model. A commitment to this Model has been obtained from all Senior Executive Service (SES) officers. As part of their Performance Agreement, SES officers are required to develop a leadership plan, and a process for feedback from staff on leadership issues has been implemented. In addition, staff surveys have included questions on leadership so that changes over time can be measured and acted upon.

In the area of strategic planning, the Practice has undertaken a market segment analysis to facilitate a more appropriate alignment of its service delivery to the needs and expectations of clients. Financial and business plan targets have also been developed for Treasury Centres. A number of reviews have been implemented aimed at identifying opportunities for improvement in practices and procedures.

Under the concept of One Practice, there are procedures in place to facilitate the interchange of views and ideas between the policy elements of the Legal Practice and the legal service elements. The policy areas of the Practice are part of the process improvement programme, which is explained below.

In 1995, process improvement became a major focus of the Quality Service Program. To facilitate the development of the Program into all areas of the Practice, a network of Quality Facilitators was

established. Quality Sponsors were appointed to support the Facilitators in their work. This network is overseen by the Legal Practice Quality Council, which was established in September 1996.

MAIN LESSONS LEARNED

From a positive perspective, the introduction of user charging has meant that the Legal Practice is better able to organise its resources to satisfy the needs of the client. In a number of cases, this has presented promotional opportunities that would not have been available under the previous budget-funded regime. It has also allowed clients to play a far greater role in the delivery of legal services aimed at meeting their specific programme and policy objectives which in some cases have required a broader approach on behalf of the Practice than one limited to legal advice.

A major problem for the Practice has been in the area of time-recording and our incapacity under current industrial awards to discipline staff who fail to meet time-recording requirements or even to downsize in those areas where work has declined.

The change in culture required by staff is a major challenge for any organisation going through the move from budget-funded to commercial operations. The two-year tied arrangement facilitated the cultural change. It is important that in instituting a new environment, management be given the flexibility to engage staff that are committed to making that environment a success.

While there have been a number of problems, overwhelmingly the transition from budget-funded to commercial status has been successful in that the Practice has generated a return to the Commonwealth on its asset holdings and clients are now able to make more informed decisions with regard to the consumption of legal advice, thus leading to a more efficient use of financial resources, which have been reducing over the last five years.

USER CHARGING FOR AIR TRAFFIC CONTROL SERVICES: NAV CANADA

by

Gord Wilson, Senior Negotiator, Transport Canada

INTRODUCTION

This paper reviews the framework within which user charges are to be established in a commercialised Canadian Air Navigation System (ANS).

The commercialisation of the ANS presents many challenges in respect of user charges. The establishment of a unique 100 per cent debt-financed commercial entity to acquire, operate, manage and develop the ANS demanded an environment in which user charges could be imposed and collected with a high degree of certainty for the provider of the services and its lenders. On the other hand, the fact that the user charges would be applicable to monopoly services in a key sector of the Canadian economy necessitated a process for balancing the revenue requirements of the commercial provider of air navigation services with the interests of the various groups of users (*e.g.* affordability for operators of small aircraft such as regional air carriers and general aviation) as well as with the broad public interest (*e.g.* continuation of appropriate services for remote communities). In addition, it was important that a way be found to balance all of these interests without requiring the government to take an active ongoing role in economic regulation.

This paper does not address the actual user charges for air navigation services. These charges will be established over the next two years by the new commercial ANS operator, within an accountability, legislative and economic regulatory framework specifically designed for the commercialisation of the ANS.

BACKGROUND

The Canadian Air Navigation System (ANS) consists of a network of staffed facilities and navigational equipment established for the purpose of ensuring the safe and expeditious movement of aircraft in Canadian airspace and in international airspace for which Canada has air traffic control responsibility. The International Civil Aviation Organisation (ICAO) has delegated to Canada air traffic control responsibility for the airspace over the western half of the North Atlantic Ocean.

The ANS is one of the largest air navigation systems in the world, with over 6000 employees and approximately 1400 facilities.

For practical purposes, the ANS is a monopoly. It is an absolute monopoly in terms of en route (*i.e.* between airports) air traffic control services. With the exception of military airports and one small general aviation airport, the ANS is a monopoly in respect of terminal control services (air traffic control services at airports). It is also the dominant provider of electronic navigational facilities (a limited number of private navigational aids exist at smaller landing facilities in Canada).

As in many countries, the ANS was initially the responsibility of the military. In 1940, the newly created federal Department of Transport took over responsibility for the civil portion of air navigation services. The ANS was subsequently operated as a part of the Department of Transport, which also had

responsibility for the operation of almost all commercial airports in Canada, as well as the regulation of civil aviation.

By the early 1980s, the government of Canada was re-evaluating the extent of its involvement in various sectors of economic activity, in terms of government ownership and operations as well as economic regulation. The level of economic maturity of the aviation sector has led to many changes in the extent of government involvement in this sector in the past 15 years. The government has eliminated much of the economic regulation of commercial aviation. It has divested itself of ownership in the airline industry and in the aircraft manufacturing industry. The government has also begun to divest itself of the operation of airports, a process that is expected to see the federal government virtually removed from the operation of airports by the turn of the century.

By 1990, there was growing interest in the government and among the key participants in the ANS for commercialisation of the system. A Ministerial Task Force on Aviation Matters and a Royal Commission on National Passenger Transportation recommended that commercialisation of the ANS be given serious consideration. A similar recommendation was made in a letter to the Minister of Transport jointly signed by the national associations of commercial air carriers, business aircraft operators, airline pilots and air traffic controllers.

Early in 1994, in its annual budget, the government directed the Department of Transport to review the potential for commercialisation of the ANS in close consultation with affected parties. The Government was satisfied that it did not need to own and operate the ANS in order to safeguard the public interest, which includes such considerations as the safety of the system, equitable access to the system for all users, appropriate services for remote communities, improvements in transportation efficiency, observance of international obligations, protections against abuse of monopoly position, and promotion of national sovereignty and security. The view of the government was that the public interest could be ensured in a commercialised ANS through means other than ownership and operation (*e.g.* through an appropriate form of commercial entity, within an effective safety and economic regulatory framework).

The Department of Transport's review, which was conducted across the country, examined a number of options for commercialisation, covering the full spectrum from a commercially oriented government department to a full for-profit private sector enterprise. Several discussion papers were produced and widely distributed. An Advisory Committee of external stakeholders and employee unions was established and consulted regularly.

The result of the review was a consensus in favour of commercialisation by way of a not-for-profit corporation. Other options were considered to be deficient in important respects. For example, a crown corporation was seen as being too close to the government, and a full for-profit corporation was considered unsuitable given the monopoly position of the ANS.

In the 1995 budget, the government announced its intention to transfer the ANS to a not-for-profit corporation. Negotiations began with NAV CANADA, a not-for-profit corporation established to acquire, operate, maintain and develop the ANS. An agreement was reached on 1 April 1996 to sell the ANS to NAV CANADA for \$1.5 billion. The Civil Air Navigation Services Commercialisation Act, authorising the sale and establishing parameters within which the new entity would operate, was approved by the Canadian Parliament on 20 June 1996. NAV CANADA took over responsibility for the operation of the ANS on 1 November 1996.

While Canada is not the first country to commercialise its air navigation system, it is the first to move its system from government to a private corporation with no government ownership or debt guarantees.

RATIONALE FOR COMMERCIALISATION

As the provider of the services, the government was interested in commercialisation both as a matter of policy and practicality. In terms of policy, as noted above, the government was already reviewing its role in many sectors of economic activity.

As a practical matter, budgetary constraints exerted pressure on the government to remove itself from an activity that, up to that point, had always required an annual subsidy by the taxpayer. Even though the extent of this subsidisation was being reduced, and the potential existed to eliminate the subsidy, there was a strong incentive for the government to remove itself from a capital-intensive business that would require substantial borrowing, from time to time, to keep pace with rapidly advancing technology. The need for such borrowings, notwithstanding the fact that the debt servicing could be recovered from users over time, was increasingly seen as being inconsistent with the government priority to reduce the federal deficit and debt.

Stakeholder interest in commercialisation of the ANS was based on a belief that, under government operation, the ANS could not adapt quickly and efficiently to commercial, operational and technological developments. Continuing budget cuts and rigid government-wide personnel policies were seen as obstacles to an efficient ANS which could be overcome under a commercialised ANS.

A key factor in the increasing interest in ANS commercialisation was the capacity constraints that developed around 1990 at Toronto Pearson International Airport, the busiest airport in Canada. Understaffing of air traffic controllers, resulting from both budget constraints and government-wide personnel policies, led to significant delays at the airport that eventually had to be managed through capacity restrictions. The economic costs to the Canadian transportation system were significant.

Both the government and external stakeholders wanted a commercialised ANS that could become more responsive, once freed from the constraints of the government budgetary process and administrative and personnel policies.

Against this background, the commercialisation of the ANS proceeded with the following objectives:

- the dependency on taxpayers should be eliminated as soon as possible;
- the ANS should be able to respond better and more quickly to user needs;
- the ANS should be able to achieve more rapid improvements in internal and transportation efficiency; and
- the ANS should operate in a business-like way.

User charges have a role to play in the achievement of each of these objectives. A comprehensive system of user charges established at appropriate levels would generate the revenues required to operate the ANS on a business-like basis, thereby removing the need for an annual subsidy from the taxpayer and freeing the provider of the service from the constraints of the government budgetary appropriation system. With control over its own funding, the service provider is in a position to take advantage of technological and other investment opportunities that will benefit users. Furthermore, by establishing a direct link between what users pay and the costs of particular services, efficiencies both internal and external to the ANS service provider are more likely to be realised.

NOT-FOR-PROFIT CORPORATION

A not-for-profit corporation is an organisation formed for the purpose of conducting some activity without financial gain. There are no shareholders, only Members who appoint the Board of Directors. Although profits may occur from time to time in such an organisation, the objective of the corporation is financial viability – not profit generation. If profits are generated, they cannot be distributed. They must either be reinvested in the corporation, kept as operating reserves, used to pay down debt or used to reduce user charges.

NAV CANADA was incorporated as a non-share capital corporation for the purpose of acquiring, developing, operating and maintaining the ANS. It has four members who appoint 10 of the 15 positions on the Board of Directors:

- a commercial air carrier member who appoints four Directors;

- a non-commercial member who appoints one Director;
- a union member who appoints two Directors; and
- a government member who appoints three Directors.

The 10 Directors appointed by the members select four additional Directors. The resulting 14 Directors appoint a Chief Executive Officer. No Director may be an elected official, government employee, or employee or director of a significant supplier or customer of NAV CANADA.

As a corporation without share capital, NAV CANADA is 100 per cent debt-financed. NAV CANADA was required to go to financial markets to secure the financing necessary to purchase the ANS and to have appropriate working capital. In fact, NAV CANADA represents the largest debt-financing ever undertaken in Canada.

CONSIDERATIONS FOR ECONOMIC REGULATION

One of the issues identified in the 1994 review by the Department of Transport was the need for economic regulation of a commercial ANS entity. The Department commissioned a consultant to prepare a discussion paper. This paper was one of the discussion papers that served as the basis for consultations with stakeholders and the general public.

The issue of economic regulation generated surprisingly little interest. This would appear to have been the result of the consensus that was emerging in favour of the not-for-profit form of organisation with significant user input to the composition of the organisation's Board of Directors.

The main reaction was that the government had to do something to protect the small users and remote communities. The international airlines, who had no appointees on the NAV CANADA Board of Directors, also were insistent on strong regulation to guard against abuse of monopoly position.

In setting out to develop the economic regulatory framework, the government was striving to strike a balance between the commercial interests of NAV CANADA, which were heavily influenced by its not-for-profit status, and the interests of users and the general public, without the need for complicated and costly regulatory processes.

The following sections briefly discuss some of the more significant considerations in the development of the economic regulatory framework.

Monopoly

As noted above, for practical purposes, the ANS is a monopoly. Nevertheless, there are some opportunities to introduce an element of competition. For example, terminal control services could be opened up to competition. This has been done in a number of countries (*e.g.* the United Kingdom, New Zealand), where various operators can compete for the right to provide monopoly terminal control services at a particular airport.

Providing opportunities for competition in terminal control services was considered a way to safeguard the public interest. However, the finance ability of a not-for-profit corporation was dependent to a large degree on the extent and duration of its monopoly. Lenders would have been concerned if a part of the ANS, representing at least one-third of its revenues, were to be opened up to competition from the outset or at some time during the term of any debt instrument. The effect would be that the potential advantages of competition would likely be offset by the higher costs to users resulting from the higher interest rates required to compensate lenders for higher risks.

In the end, it was not considered necessary to introduce competition. It was felt that the not-for-profit form of the corporation and the specific structure of the NAV CANADA Board of Directors would be sufficient to remove any incentive to abuse monopoly position.

Internal and transportation efficiencies

The not-for-profit form of organisation alone might be inadequate to address one of the important objectives of ANS commercialisation – the achievement of internal and transportation efficiencies. It is the user representation on the Board of Directors that is important for this purpose.

It is felt that this representation will bring the broader interests of users to bear on operational and investment decisions of the entity. For example, a Board of Directors with a significant user orientation would be likely to take into account the impact on users outside the organisation itself. For example, a certain investment in technology might allow airlines to fly more direct routings, thereby allowing savings in fuel. Given that fuel represents approximately 15 per cent of the operating costs of Canadian air carriers, while ANS user charges are likely to be in the range of 5 per cent to 7 per cent, the investment could result in reductions in the overall costs of transportation. Another form of corporation without this user orientation might be less inclined to attach the same weight in its business decisions to such external benefits.

While the government recognised the need for some form of economic regulation, it did not want to establish a traditional type of economic regulation, which typically involves lengthy, complicated and costly *ex ante* processes in which a regulated entity is required to seek the approval of a government agency before altering its services or setting its prices. Nor did the government want to set up lengthy appeal processes, which could end up in the courts.

In addition to the government's opposition to such approaches from a policy perspective, there were practical problems. Given that the preferred form of organisation was a not-for-profit corporation, which was to be 100 per cent debt-financed as a non-share capital corporation, traditional regulatory processes were a threat to financeability of the ANS. Lenders would be concerned that the timing and amount of the entity's revenue stream and its ability to manage its costs (*e.g.* ability to terminate uneconomic services) could be unduly affected by the process.

The government was aware of other techniques in use around the world, such as a prescribed rate of return or a prescribed maximum increase in charges (*e.g.* Consumer Price Index – X per cent). While each of these techniques has its advantages, the government did not want to remain involved even to the extent of establishing the target. With the not-for-profit form of corporation, such target-setting became unnecessary. It was also felt that the composition of NAV CANADA offered incentives for efficiencies that are at least as strong as those that exist under these other techniques.

Existing revenue base

The requirement for a major restructuring of the existing revenue base also had to be considered in the design of the regulatory framework.

The principal source of revenue for the ANS under government operation was the Air Transportation Tax (ATT). The ATT is a federal excise tax imposed on the purchase of commercial airline tickets involving travel within Canada or international travel to or from Canada. If the travel is entirely within North America, the ATT is calculated as a percentage of the ticket price, plus a flat amount, to a maximum. For overseas travel, the ATT is a flat amount per ticket.

The ATT is normally collected from passengers at the time of ticket purchase. On a monthly basis, the airlines remit total ATT collections to Revenue Canada, the federal excise tax collection organisation.

Unlike any other tax in Canada, the revenues from which are used for general government purposes, the ATT is earmarked as a source of revenue for the ANS. In this way, the ATT has served as a "quasi-user charge". The Department of Transport is credited monthly with an amount equivalent to ATT collections.

Prior to 1 November 1995, the only direct user charges were those for services provided by Canada in international airspace, which accounted for only slightly more than 5 per cent of the total costs of the ANS. These charges are flat amounts per flight.

While the ATT is a relatively simple way to generate revenues for the ANS, it has two major weaknesses:

- Certain categories of users pay nothing towards the costs of operating the ANS. The ATT is not applicable to commercial cargo carriers, business aviation and other segments of General Aviation, and even commercial airline passengers on smaller aircraft. However, the largest category of users not captured by the ATT are the aircraft overflying Canada without landing in Canada (e.g. flights between the US and Europe and the US and Asia). There are over 1 000 such flights each day, most of them on the largest types of commercial aircraft.
- Its lack of incentives for transportation efficiencies. In terms of efficiencies, it is felt that user charges bearing a more direct link to the costs of services than the current ATT could have an important disciplining effect on the costs of providing the ANS. Because the ATT is paid by passengers rather than by the air carriers, the costs of the ANS are not taken into account in the economic decisions of the direct users of the system. This could result in inefficient usage of the service, such as a carrier using a large number of smaller aircraft rather than fewer but larger aircraft. This could have implications for the costs of airports, as well as air navigation services, particularly if a more economic use of aircraft were to alleviate peaking problems.

For these reasons, and the fact that it would be unacceptable from a policy perspective to allow a commercialised ANS entity to have access to federal tax revenues on an ongoing basis, the movement to commercialise the ANS had to proceed on the basis that the ATT would be replaced by a system of user charges, after some appropriate transition period.

As a first step in this direction, the government introduced user charges on overflights, effective 1 November 1995. This charge is calculated on the basis of the distance flown in Canadian airspace and the weight of the aircraft. The structure of the overflight charge will be discussed in more detail in later sections.

Charging authority

The government had a strong charging authority granted in the *Aeronautics Act* to the Minister of Transport. The government recognised that a commercialised operator of the ANS also required a clear authority to impose its charges. Such authority was expressly given in the *Civil Air Navigation Services Commercialisation Act*.

The charging provisions of this Act deal specifically with the nature of air navigation services, by granting authority for NAV CANADA to impose charges “for the availability or provision of services”. The concept of availability of service is important, given that an aircraft operator benefits from the existence of the air navigation services even when direct use is not being made by it of certain elements of the service. For example, many of the larger airlines have on-board navigational equipment which reduces their reliance on many land-based navigational facilities provided by the ANS operator. It is reasonable, however, that these aircraft should help pay for such facilities because they still benefit from the existence of these facilities in a number of ways.

First of all, a larger airline with its own sophisticated equipment, which allows a pilot to know exactly where the aircraft is flying, benefits from land-based navigational aids which keep less well-equipped aircraft flying in the proper airspace. Secondly, these navigational aids serve as a redundancy or accuracy check for the airline’s own equipment.

As the technology advances, the availability concept will become even more important.

REGULATORY FRAMEWORK FOR NAV CANADA

The government created an accountability and regulatory framework which is unique, at least in terms of Canadian experience. This framework is based on:

- **The nature of the ANS entity**

As previously discussed, the nature of the not-for-profit form of corporation and the particular structure of NAV CANADA are highly relevant. The inability of not-for-profit corporations to distribute profits, combined with the diverse representation on the NAV CANADA Board of Directors, including the significant user orientation, offer substantial protections against the abuse of monopoly position.

- **Mandatory requirements for transparency of information, public notice and consultation**

These requirements are established in both the By-Laws of NAV CANADA and the legislation. The By-Laws required the initial approval of the Minister of Transport, and key articles dealing with matters of public accountability cannot be amended without the approval of the Minister. In addition, the legislation establishes certain requirements in this respect.

- **Charging principles established in legislation**

The legislation establishes broad parameters within which NAV CANADA is free to set its user charges without the need for approval by the government.

- **Streamlined appeal process**

The legislation sets out an expeditious and tightly defined appeal process. Users may only appeal charges when they are introduced, and only on the basis that they are in conflict with the charging principles established in the legislation.

The sections that follow demonstrate how these principles are put into operation through the process for establishing user charges, the principles guiding the establishment of the charges and the mechanism for users to appeal new or revised charges.

Process for establishing user charges

The legislation requires NAV CANADA to provide public notice of any proposal to introduce or revise charges. Certain minimum requirements, in terms of content and timing, are specified for the notice. NAV CANADA is obliged to consider the representations of affected parties and it cannot announce its decision until at least 60 days have expired since the initial public notice of its intention. After this announcement, at least another 10 days must pass before the new or revised charges may take effect, in order to give users some time to prepare for the changes.

While these timeframes are fairly tight, they are seen as minimum requirements in case NAV CANADA has to act quickly for urgent financial reasons. Under normal circumstances, an organisation with the user sensitivities of NAV CANADA would exceed these minimum requirements. It is felt that, if the minimum timeframes ever became necessary, they would still afford interested parties the opportunity to make their views known, a contention supported by the fact that the International Civil Aviation Organisation recommends 60 days as the minimum period from initial presentation of proposals to implementation.

Charging principles

The legislation establishes the parameters within which NAV CANADA is free to establish its charges.

In developing these principles, the government took the position that a properly structured private sector entity did not need the government to tell it exactly how to set its charges. To have been prescriptive on charges would have been inconsistent with the philosophy that government no longer needed to be involved in the operation of the ANS business. It would have been worrisome to lenders. It was also unnecessary, given that NAV CANADA had a substantial body of international experience on which to draw, as well as guidelines from the International Civil Aviation Organisation on the structuring of user charges. Finally, it would have introduced rigidities that might have made it difficult for NAV CANADA to respond to changing conditions and international practices over time.

While the government did not think it appropriate to instruct NAV CANADA how to structure ANS charges, it felt that it was necessary to specify that certain practices were unacceptable. This led to the drafting of a set of charging principles which put a fence around the practices that NAV CANADA could adopt. As long as NAV CANADA operated within that fenced-in area, none of its charges could be appealed.

The charging principles were specifically drafted for the purpose of defining this fenced-in area. They draw on guidelines established by the International Civil Aviation Organisation (ICAO) for air navigation charges, Transport Canada's experience as the operator of the ANS for over 50 years, the practices of other air navigation service providers around the world, Canadian practices in respect of the regulation of other monopolies, and basic principles of equity and fairness.

While a government-wide policy on charging exists, it was not specifically used as a source for the charging principles. It was felt that this policy was intended for more traditional government services, rather than for a business set in an international marketplace for which a substantial body of international guidelines and practices already was available.

The charging principles address issues such as:

- transparency of the charging methodology;
- structure of the charges;
- recognition of value of service;
- encouragement of aviation safety;
- prevention of unjustified price discrimination;
- impact on general aviation;
- impact on northern and remote services;
- consistency with Canada's international obligations; and
- limits on the quantum of charges.

Box 1 contains a summary of the charging principles, which are set out in Section 35 of the *Civil Air Navigation Services Commercialisation Act*.

A brief discussion of a number of the key issues follows.

Most discussions of aviation user charges explicitly or implicitly involve the recognition of the cost of the services and the **value of the services**. The concept of the cost of services is based on the premise that charges should be based on the costs incurred in providing the service to a user. The concept of the value of services is based on the premise that charges should recognise that users derive different benefits from a service, and that those users receiving greater benefits should pay higher charges. This concept is consistent with ICAO principles on user charges.

In the case of ANS user charges, the costs incurred by the service provider are essentially the same, regardless of the size and type of aircraft receiving the service. Strict observance of the costs of services would lead to charges that would be the same for all aircraft (it is arguable that smaller propeller-driven aircraft should even pay a premium, because they spend more time in the system). A DASH 8 aircraft capable of carrying 40 passengers, a DC 9 aircraft with a seating capacity of 100 and a Boeing 747 carrying more than 400 passengers would all be subject to the same charge. If this were to be the case, it is probable that the charge applicable to the DASH 8 would be high enough to make it impossible for the operator to continue in commercial service.

The value of services represents a recognition that it is fair that users deriving greater benefits from the use of a service should pay somewhat more than users receiving fewer benefits. For ANS user charges, it is felt that the best measure of the value received is the number of passengers and the amount of cargo carried. For administrative simplicity (*i.e.* to avoid having to determine the specific payload of individual flights, particularly when the aircraft is overflying the country without landing), aircraft weight is used as a proxy.

Box 1. Charging principles

- Charges must be in accordance with a methodology established and published by the Corporation that is explicit and that also includes the terms and conditions affecting charges.
- Charging methodology may recognise that the value of services varies among users.
- Aircraft weight may be used as a measure of the value of services, provided that it is taken into account less than directly proportionally.
- Charges must not be structured in such a way that a user would be encouraged to engage in practices that diminish safety for the purpose of avoiding a charge.
- Charges for the same services must not differentiate between domestic and international flights of air carriers.
- Charges for the same services must not differentiate among Canadian air carriers or among foreign air carriers.
- Charges must differentiate between the provision of services in relation to the landing and take-off of aircraft and the provision of services in relation to aircraft in flight, and must reflect a reasonable allocation of the costs of providing the services in those circumstances.
- Charges in respect of recreational and private aircraft must not be unreasonable or undue.
- Charges for designated northern or remote services must not be higher than charges for similar services utilised to a similar extent elsewhere in Canada.
- Charges must be consistent with the international obligations of the Government of Canada.
- Charges must not be set at a level that, based on reasonable and prudent projections, would generate revenues exceeding the Corporation's current and future financial requirements in relation to the provision of civil air navigation services.

While the effect of recognising the value of services is to reduce the impact of charges on the operators of smaller aircraft, it can be argued that there is a benefit to larger aircraft as well. If only the costs of services were recognised in the establishment of user charges, it is likely that many operators of smaller aircraft could not afford to continue operations. If this were to be the case, the largely fixed cost nature of the ANS would result in the total costs of the ANS remaining essentially unchanged. In this case, the full costs of the system would have to be borne by the remaining larger operators. It is arguable that, in the absence of the operators of smaller aircraft, the charges on the operators of larger aircraft could be even higher than under an approach which acknowledges the value of the services.

The charge introduced by the government for aircraft overflying Canada (and adopted by NAV CANADA) is a flat rate per charging unit, which reflects both the cost of services and a measure of the value of services. The number of charging units is calculated as the product of the square root of the maximum authorised take-off weight of the aircraft (value of service) and the number of kilometres flown in Canadian airspace (cost of service). The square root of the aircraft weight is an arithmetic technique to reflect that the benefits received by an aircraft, as measured by its payload, increase less quickly than the weight of the aircraft. For example, a Boeing 747 weighs roughly seven times as much as a DC 9 and carries roughly four times as many passengers. By using the square root of the aircraft weight, a Boeing 747 would pay approximately 2.7 times as much as the DC 9. This is but one way of recognising the value of service in ANS charges. It is probably the most common way found in international practice today.

The charges imposed by the government for services provided in international airspace under Canadian control are a flat charge per flight. They were established this way because the distances travelled and the size of the aircraft in these overseas operations typically vary less than for flights in Canadian domestic airspace.

Another issue that had to be addressed in the charging principles was the impact of charges on **aviation safety**. Due to the nature of the ANS, there is often a concern that users will choose not to take advantage of a safety-related service, in order to avoid incurring a user charge.

In fact, the existence of user charges does not, of itself, diminish safety. The critical determinant is how the charges are levied.

It would be unacceptable, for example, to impose a charge that could be avoided by not using a particular service. A charge tied directly to the provision of an aviation weather briefing would provide a financial incentive for pilots to forgo the briefing and thereby take-off without the benefit of critical weather information.

The appropriate practice is to recover the costs of particular safety-related facilities and services, such as aviation weather information, through a general charge which is incurred when the aircraft operates. In this way, the user cannot avoid paying for aviation weather information if he/she operates, and therefore has no incentive to forgo the service. The only way that the user can avoid paying for aviation weather information is by not flying, an alternative that has no negative safety implications.

A major issue in the establishment of airport or ANS user charges in Canada has always been **the impact on General Aviation**. The term General Aviation captures the spectrum of users not engaged in aviation services “for hire or reward”. Included in General Aviation are various sub-groups including aircraft operated by businesses for the transportation of their executives and other employees, aircraft owned and operated by individuals for personal transportation, and aircraft owned and operated by individuals and flying clubs for purely recreational purposes.

General Aviation is characterised by its sensitivity to costs. This often means that the amount of the charge that this sector of aviation can bear is so small that it is uneconomic for a service provider to collect (*i.e.* disproportionate collection costs). This is a major reason why General Aviation has been able to avoid ANS user charges in Canada throughout the years of government operation of the ANS. It also must be said that General Aviation has historically been successful in its lobbying efforts to avoid such charges.

In commercialising the ANS, it was felt that all sectors including General Aviation must be prepared to make a contribution toward the costs of running the system. However, recognising the price sensitivity of General Aviation and acknowledging that this sector should be ensured a continuing role in aviation in Canada, a charging principle was introduced to prevent “unreasonable or undue” charges on this group of users. Although the wording of this principle is subjective, both the ANS provider and users seem satisfied that it provides a mechanism for concerns about the potential impact on General Aviation to be addressed.

The principles also sought to explicitly prohibit **unjustified price discrimination**. One such practice found in some parts of the world is the differentiation in charges for domestic and international flights using the same services. Given the strong domestic user orientation of the NAV CANADA Board, a prohibition against premium international charges was inserted in the charging principles as an additional safeguard for international civil aviation.

The charging principles also had to address concerns about the high costs of operating in **northern and remote parts of Canada**. ANS services in northern and remote parts of Canada are characterised by high costs of providing the services and low levels of aviation activity, resulting in high unit costs. Given the importance of air transportation to the people living in these areas of Canada, it was essential that the introduction of ANS charges not diminish the accessibility to the transportation system for the residents.

With this in mind, a charging principle was drafted prohibiting charges in respect of northern or remote services from being higher than the charges for similar services elsewhere in Canada. The practical result of this principle is that some of the higher costs of operations in remote areas are likely to be recovered through the charges imposed on users in other parts of the country.

This is the only statement in the charging principles affecting a key issue in aviation charges – **site-specific versus system-wide charging**. While only a system- or subsystem-wide approach to pricing is practical in respect of the en route portion of the ANS, either a site-specific or system-wide

approach could be adopted for the terminal part of the system (*i.e.* services at, and in, the vicinity of an airport, for the use of aircraft taking off or landing at that airport). NAV CANADA could either establish its terminal charges on the basis of the costs and traffic levels of each airport (site-specific charges) or it could pool the costs of the terminal services for all airports (or groups of airports) and set a common charge for all airports nationally (or within a group). Consistent with the previously mentioned desire not to tell a commercialised entity how to impose its charges, the charging principles do not favour one approach over the other, other than to the extent that a degree of system-wide charging is necessary to provide relief to residents of northern and remote areas against the high costs of ANS operations in such areas.

Appeal process

The appeal process was designed to provide users with an opportunity to challenge NAV CANADA's charges on certain clearly defined bases, within a fairly short timeframe. A tightly defined and expeditious appeal process was important from the standpoint of minimising uncertainty in respect of the entity's revenue stream and avoiding the need for a substantial bureaucracy to administer the process.

A number of things were done to establish a streamlined appeal process:

- **Only those directly paying the charges (*i.e.* aircraft operators) may file an appeal**

While other parties may be affected by new or revised charges (*e.g.* airline passengers), it is felt that those directly subject to the charges are in the best position to assess the legitimacy of the charges in relation to the legislated principles. For example, while charges are passed on to the fares paid by airline passengers, passengers typically do not have the technical knowledge of the services being charged for, or of the industry concepts used in the charging principles, to make such an assessment. The exclusion of passengers and other parties, such as the communities where the services are provided, does not mean that such interested parties have no role to play in the establishment of charges. The consultation process includes all interested parties, not just those parties who directly pay the charges.

- **An appeal may only be made on specific grounds**

An appeal may only be made on the basis that the new or revised charge is inconsistent with one or more of the charging principles, or that NAV CANADA did not provide the notices and announcements according to the criteria and timeframes established in the legislation. Vague appeals essentially based on a reluctance to see charges increased can be quickly dismissed.

- **An appeal may only be filed when charges are introduced or changed**

Users are afforded an opportunity to appeal without exposing NAV CANADA to the risk of an appeal "out-of-the-blue" at any time, with the possibility of resulting significant refunds.

- **Short timeframes are prescribed for both the filing and handling of appeals**

Users must file an appeal within 30 days of the announcement of a decision by NAV CANADA to introduce or revise charges, and the appeal body is required to make a decision on the appeal within 30 days of receiving the appeal. There is a provision that the time to consider an appeal may be extended to 60 days in the case of special circumstances.

- **The filing requirements for an appeal will be simple**

The process will allow a user to file an appeal without detailed and lengthy submissions that would likely call for the retention of legal and other expert advisors. The objective was to make the appeal process accessible to individual private aircraft operators as well as large commercial airlines.

- **A decision of the appeal body may not be reviewed by the government (*i.e.* Cabinet)**

The finality of a decision by the appeal body removes the political element from the process.

- **A decision of the appeal body may not be reviewed by the courts on matters of fact**

The courts may not review the facts of an appeal. There is, however, an opportunity for an appeal to the courts on the basis that the appeal body made an error in process (*i.e.* Judicial Review).

The government did not want to establish a new organisation to conduct these appeals. Instead, it assigned the appeal powers to an existing body with regulatory review responsibilities – the Canadian Transportation Agency (CTA). However, this agency had broader powers than were contemplated for appeals on ANS charges. To overcome this, the *Civil Air Navigation Services Commercialisation Act* limited the powers of the CTA in respect of its ANS responsibilities. For example, the CTA was restricted in the scope of its review of ANS charges. It can only respond to appeals filed by users. It cannot initiate its own review. The factors that it can consider in its review are limited and specifically set out in the Act. In addition, it is given less time to consider an ANS charges appeal than it has to deal with other matters under its jurisdiction.

ADMINISTRATION AND COLLECTION OF ANS CHARGES

The nature of ANS presents both opportunities and challenges for administration of charges.

On the positive side, the control nature of air navigation services means that the information necessary for invoicing of charges exists. The degree of computerisation found in operations also means that most of the information can be accessed and manipulated with relative ease.

The actual invoicing requires a computerised add-on to existing operational systems. These systems can be developed and operated at a low cost relative to the revenues that can be generated. For example, the Department of Transport spent less than \$200,000 to develop the system necessary for the invoicing of overflight charges, which generated roughly \$150 million in their first year. The annual cost of issuing and collecting the invoices is approximately \$250,000.

In the world of international aviation, opportunities exist for co-operation in the collection of user charges. For example, a flight proceeding from New York to London is subject to Canadian overflight charges, Canadian international airspace charges, United Kingdom international airspace charges (European side of North Atlantic) and United Kingdom terminal and en route charges. The Department of Transport entered into a commercial arrangement with the Civil Aviation Authority (CAA) in the United Kingdom to collect Canadian overflight and international airspace charges to minimise duplication in collection efforts. NAV CANADA has continued this arrangement.

On the negative side, the invoicing of aircraft operators who may never land in Canada represents a challenge for collection. The provisions of the *Civil Air Navigation Services Commercialisation Act* granting powers to seize aircraft for non-payment of charges may be of little value if the aircraft never lands in Canada. This is another respect in which the arrangements with the CAA are beneficial. The CAA also has powers of seizure and the position of London as one of the most frequented airports of international aviation affords opportunities for seizure not otherwise available to the operator of the ANS.

At this time, the United States does not have any ANS charges, although the commercialisation of the American ANS and the imposition of user charges have been under study. If such charges are introduced by the United States in the future, opportunities will exist for Canada and the United States to co-operate in the billing process for cross-border flights.

An interesting charging arrangement was struck between NAV CANADA and the Department of National Defence. This arrangement involves an exemption from NAV CANADA's charges for aircraft operated by the Canadian military. In return, the Department of National Defence will allow NAV CANADA to impose charges on commercial aircraft for air navigation services provided by the Department at military airports.

This arrangement is of benefit to the Department of National Defence, NAV CANADA and users. The Department of National Defence benefits, because it does not have to pay ANS charges in respect of its aircraft operations, and it is not required to establish and collect its own charges. NAV CANADA benefits by having to invoice fewer flights. It does not have to invoice military flights, and the flights that it would be invoicing for services rendered at a military airport would already be receiving an invoice from NAV

CANADA for services rendered elsewhere in the ANS. The commercial users of military airports benefit by receiving a single invoice from NAV CANADA, not one from NAV CANADA and one from the Department of National Defence.

In addition, this arrangement is essentially revenue neutral to the parties. The revenue forgone by NAV CANADA by the exemption from charges for military flights is roughly the same as the revenue that it gains by charging commercial flights for services provided by the Department of National Defence.

TRANSITION MEASURES

The transition from the Air Transportation Tax (ATT), supplemented by specific user charges, to a comprehensive system of user charges will have a significant effect on the distribution of ANS revenues. Some individuals will contribute to the costs of the system for the first time. Others will see a major change in the basis on which their contribution is made. In some cases, the actual cost could be quite different.

To assist the commercialisation of the ANS, the government decided to establish a two-year transition period which will allow NAV CANADA to phase in its user charges to spread out the impact of the changes. During the first two years, the government will provide NAV CANADA with a Transition Period Payment (TPP) equivalent to anticipated revenues from the ATT during those years. The requirement for the TPP and the maximum amount of the payment are entrenched in the *Civil Air Navigation Services Commercialisation Act*. A separate Transition Period Payment Agreement (TPPA) was also concluded between the government and NAV CANADA to deal with specific arrangements.

On the second anniversary of the commercialisation, the ATT will be eliminated and NAV CANADA will be entirely dependent on its system of user charges. The elimination of the ATT is provided for in the Act.

The possibility exists for the ATT to be eliminated sooner or reduced during the transition period. The TPPA provides the opportunity for NAV CANADA to request an earlier elimination of the ATT or a phased elimination of the ATT, if it implements its full system of user charges before the second anniversary of the transfer. Any changes in the ATT would occasion commensurate reductions in the TPP.

The one other transition measure provides for a special approval process for user charges in the first two years. The *Civil Air Navigation Services Commercialisation Act* provides NAV CANADA with the option of seeking the approval of the Minister of Transport for its new or revised user charges during the first two years, in which case the charges would not be subject to appeal. This measure was considered important by lenders during the period when NAV CANADA was putting in place its user charges. The concern on the part of lenders was with the actions of an unknown appeal process during the formative stages of NAV CANADA's system of user charges.

The government was prepared to accept this transition measure as a way to ensure that the advantages of the not-for-profit form of organisation could be realised. The uncertainty introduced by the possibility of appeals during the first two years would likely have added to the financing costs of NAV CANADA and, as a result, to the level of charges imposed on users. It also felt that this interim measure had no negative effect on the public interest, because the Minister of Transport would ensure that the charging principles were observed during this period.

SUMMARY

As NAV CANADA only took over the operation of the ANS on 1 November 1996, it has not yet put its own user charges in place. At this time, its only user charges are the overflight and international airspace charges that were imposed by the government when it was the operator of the ANS. However, NAV CANADA has begun work to develop proposals for its own system of charges. It is expected that it will

initiate consultation early in 1997 on a set of charging proposals, for implementation in the autumn of that year.

The government believes that a framework is in place that will allow NAV CANADA to generate the revenues that it requires to become and remain a fully financially self-sufficient corporate entity, while ensuring that the interests of users as well as the public at large will be safeguarded, without the need for ongoing involvement by the government. It anticipates that commercial operation of the ANS and the introduction of direct charges for services will lead to the achievement of transportation efficiencies.

The ANS initiative is an innovative approach to the commercialisation and regulation of an important national economic activity. It represents the first time that a regulatory framework of this kind has been introduced in Canada. It is felt that this framework may serve as a model for other economic sectors in Canada, and for aviation and other sectors in other states.

USER CHARGING IN FINLAND

by

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LEGAL FRAMEWORK

The legal framework for user charging in Finland is clear. This framework incorporates three levels:

- the Constitution,
- legislation enacted by Parliament, and
- regulations issued by government ministries.

The Constitution makes an explicit distinction between taxes and user charges. Taxes are collected by the Treasury for general use and are not allocated to any specific public service, whereas the reverse is the case for user charges. Article 62 of the Constitution requires all user charges to be authorised by legislation.

In 1992, Parliament enacted the *User Charging for Government Services Act* ("the *User Charging Act*"). This *Act* provides the government with almost unlimited authority to implement user charging in accordance with the general principles laid down in the *Act*. The *Act* applies equally to internal charging between government organisations and charging of external users.

The *User Charging Act* replaced an older act dating from 1974. There were several reasons why this legislation needed to be brought up to date. First, the use of market-type mechanisms was being actively promoted in the public sector. Second, performance management practices were being introduced in the public sector. This new *Act* facilitated the implementation of both these policies. Third, the general competition legislation was being updated. This *Act* sought to bring government operations into conformity with that legislation.

The *User Charging Act* divides government services into two groups: services that are *subject to charge* and services that are *free of charge*.

The following services are *subject to charge*, except in exceptional circumstances:

1. goods;
2. services produced on demand;
3. administrative actions taken upon application; and
4. other outputs whose production results from an action by the user.

The *Act* emphasizes that a service must be subject to charge when it, or some comparable service, is produced by a private organisation on a commercial basis, or when the provision of the service is an input for the user's commercial activities.

It is the responsible ministry which decides which services are to be classified as free of charge and which services are to be classified as subject to charge. The ministry is authorised in exceptional circumstances to deviate from the above general guidelines in deciding whether or not to charge for a specific service. The user charge becomes effective once the ministry has issued a regulation to that effect in the Official Gazette.

Pricing of government services

For purposes of pricing, the *User Charging Act* divides government services into *statutory services* and *commercial services*. *Statutory services* refers to services supplied by government organisations in accordance with official acts or regulations and where the government organisation has an exclusive right to supply the service called for in the acts or regulations. Services that do not meet this criteria are deemed to be *commercial services*.

According to the *Act*, the charges levied for statutory services must be equivalent to the total cost of producing the service, *i.e.* services must be charged for at cost. In exceptional cases, the *Act* authorises the government to set charges at below cost or to waive them altogether. This applies in the following areas: health care and other welfare services, administration of justice, education, general cultural activities, and environmental protection services.

Commercial services are charged for according to market principles, *i.e.* the price is set by free competition in open markets. Services charged for in this manner are required to show overall profitability. The *User Charging Act* does not, however, demand profitability from each individual service or group of services that an organisation supplies. In calculating charges according to this regime, organisations must include an allowance for the cost of capital that investors would demand in similar private sector enterprises. This profitability requirement is being phased in over a period of several years. The *Act* does permit the government to subsidise commercial services with a special budget appropriation.

In the interest of free and fair competition, the general competition legislation applies to commercial services produced by government organisation. If the services of a government organisation have a dominant market position, the competition legislation prohibits misuse of this position in the form of overpricing. The competition legislation prohibits cross-subsidisation of commercial services as well. Compliance with the legislation is overseen by the Office of Free Competition, which can order government organisations to revise their prices.

Government organisations are restricted in what commercial services they can offer. All such services must be closely related with the organisation's basic statutory function. The specific limits are detailed in the acts and regulations governing the operations of each particular organisation.

Whether an activity should be priced as a statutory service or a commercial service is decided by the responsible ministry. Pricing decisions for statutory services are made by the responsible ministry. These decisions are published in the Official Gazette. In the case of pricing for commercial services, the relevant government organisation decides for itself the prices it charges. This is based on the premise that public sector organisations should be in a position to react to competitive pressures in the same manner as private sector enterprises. Competition is considered to be the guardian of the consumer's interests.

STATISTICAL DATA

In 1995, income from statutory services under the *User Charging for Government Services Act* amounted to FIM 860 million and income from commercial services under the Act amounted to FIM 4620 million. Income from user charges under separate legislation amounted to FIM 820 million. In total, income from user charges amounted to FIM 6300 million in 1995.

Cost recovery on statutory services subject to charge amounted to 79 per cent, a deficit of FIM 220 million. Cost recovery on commercial services subject to charge amounted to 86 per cent, a deficit of FIM 720 million. Cost recovery on services subject to charge under other legislation than the *User Charging Act* amounted to 47 per cent, a deficit of FIM 920 million. In total, cost recovery on services subject to charge amounted to 77 per cent, a deficit of FIM 1860 million. It should be noted that due to inconsistencies in the cost accounting systems operated by government organisations, this data can only be considered indicative.

The total amount of user charges in the budget sector rose nearly FIM 540 million, *i.e.* 9 per cent, between 1994 and 1995. This large increase was due mainly to reforms in 1995 connected with the leasing of premises which meant that government organisations were required to pay rent for their space. The biggest recipient of rental income was the State Real Property Agency, which had previously supplied government organisations with space free of charge.

It should be noted that over half of all government services subject to charge under the *User Charging Act* were produced and consumed within government. These internal charges amounted to nearly FIM 2 900 million in 1995. Sales to external parties amounted to FIM 2 500 million in 1995.

The following table shows a breakdown of user charging receipts by customer groups for the years 1994 and 1995. The table refers only to charges under the *User Charging Act*.

	1994		1995	
State Administration	2 500	53%	2 900	53%
Business and Industry	1 100	24%	1 300	25%
Households	400	8%	440	8%
Municipalities	400	8%	430	8%
Other	300	6%	310	6%
Total	4 650	100%	5 380	100%

Note: All figures in millions of FIM.

EVALUATION OF USER CHARGING PRACTICES

The main problem with implementing user charging has been the standard of accounting systems operated by government organisations. The proper allocation of costs and the need to distinguish between the costs of services subject to charge and services free of charge has taken on great importance. The present accounting systems have not been able to meet the demands made of them in this respect. Allocating costs accurately is particularly important when the same staff use the same production factors to supply both services that are subject to charge and services that are free of charge.

At the same time as the user charging reforms came into effect, a new system of net budgeting was introduced. This meant that government organisations could finance increased expenditures with commensurate user charges without having to seek prior parliamentary approval, as had been the case in the former system of gross budgeting.

In the early phases of the reforms, many government organisations were poorly equipped to meet the demands of operating user charging systems. For example, sufficient attention was not paid to billing and following up on bill collection. Net budgeting and the profitability requirement have, however, meant that attention to matters such as these is essential for effective financial management.

In many cases, the profitability criteria has not been met for commercial services. This means that a special budget appropriation is required to reduce the commercially calculated prices. Ministries and agencies have, however, rarely taken this into account in their budget preparations.

Due to the inadequacy of the cost accounting and financial management systems operated by government organisations, their financial reporting and calculated profitability criteria have not always been reliable.

APPENDIX

Unofficial Translation

User Charging for Government Services Act

(21 February 1992/150)

Chapter 1

GENERAL PROVISIONS

Article 1

Coverage

This Act shall apply as the general framework for the application of user charging by government organisations.

This Act shall apply to the President of the Republic as regards decision-making in the Council of State.

This Act shall also apply to the following government organisations enjoying special legal status: the Executive Office of the President, the Executive Office of the Parliament, the Parliamentary Audit Office, the Parliamentary Ombudsman, the Library of Parliament, and the Executive Office of the Finnish Delegation to the Nordic Council.

This Act shall not apply to state-owned enterprises, unless specifically called for in their respective acts. This Act shall not apply to government agencies whose operations are subject to user charging in accordance with specific acts enacted prior to the entry into force of this Act.

Article 2

Precedence

If provisions contrary to those in this Act are contained in another act, then they shall have precedence over the provisions of this Act.

A regulation issued on the basis of this Act may contain provisions contrary to those called for in the Waiver of Minor Claims Act (1950/266).

Article 3

Definition of Terms

In this Act:

1. a "service" refers to all goods and services produced by government organisations; and
2. a "statutory service" refers to services supplied by government organisations in accordance with official acts and regulations and where the government organisation has an exclusive right to supply the services called for in the acts or regulations.

*Chapter 2***SERVICES SUBJECT TO CHARGE AND CALCULATION OF CHARGES***Article 4****Services Subject to Charge***

The following services shall be subject to charge, except in exceptional circumstances:

1. goods;
2. services produced on demand;
3. administrative actions taken upon application;
4. other outputs whose production results from an action by the user.

In particular, a service shall be subject to charge when it, or a comparable service, is produced for a charge by an organisation other than a government organisation, or when the service is an input to the user's commercial activities.

*Article 5****Services Free of Charge***

The following services shall be free of charge, except in exceptional circumstances:

1. services which cannot be deemed to be directed at an individual, enterprise or otherwise clearly defined group;
2. services which are directed at securing the livelihood of an individual by conferring a benefit;
3. provision of general information and guidance, if these services incur only insignificant expenditure.

*Article 6****Charge for Statutory Services***

Charges for statutory services shall be equal to the full cost of their production.

Similar services produced by one or several government organisations may be subject to uniform charges regardless of the variability in the cost of producing individual services. When setting uniform charges, the average total expenditure incurred in their production shall be taken into account.

In exceptional circumstances, a charge may be set below cost or waived altogether in the following areas: health care and other welfare services, administration of justice, environmental protection services, education, general cultural activities, and other comparable areas. In exceptional circumstances, a charge may be set at above cost price.

Except in exceptional circumstances, charges shall be collected from government organisations as from other users.

The government organisation producing a service subject to charge shall ensure that the cost of production and quality of the service are appropriate.

*Article 7****Charges for Other Services***

Charges for services not referred to in Article 6 shall be set in accordance with general business principles. An appropriation may be made to subsidise charges set in this manner.

Chapter 3

AUTHORITY TO SET CHARGES

Article 8

Authority of Ministries

Provisions on whether the decisions of the President of the Republic and the Council of State in plenary session are subject to charge and whether the charges are to be set at cost or in accordance with general business principles shall be issued by regulation. Provisions on whether uniform charges shall be set, as referred to in Article 6, paragraph 2, and whether charges are to be set at a level not equal to the cost of production, as referred to in Article 6, paragraphs 3 and 4, shall be issued by regulation. In other matters relating to such charges, the authority shall remain with the appropriate Ministry. In this Act, a Ministry refers to the Prime Minister's Office as well.

The appropriate Ministry shall decide which services or groups of services produced by it or other government organisations under its area of responsibility shall be subject to charge and whether the charges are to be set at cost or in accordance with general business principles.

In matters referred to in paragraph 2, the Ministry shall set uniform charges, as referred to in Article 6, paragraph 2, and decide whether charges are to be set at a level not equal to the cost of production, as referred to in Article 6, paragraphs 3 and 4.

When a matter normally decided by a Ministry is reserved for decision by the Council of State in plenary session, it shall be subject to charge as if it were a decision of the Ministry notwithstanding paragraph 1.

Article 9

Authority of Government Organisations

In cases not referred to in Article 8, the authority for user charging for services shall remain with the respective government organisation.

Article 10

Special Government Organisations

The Executive Office of the President, the Executive Office of the Parliament, the Supreme Court, the Parliamentary Audit Office, the Parliamentary Ombudsman, the Library of Parliament, the Executive Office of the Finnish Delegation to the Nordic Council, the Bank of Finland and the Social Insurance Institution shall decide themselves on the charges for their services.

Chapter 4

MISCELLANEOUS PROVISIONS

Article 11

Collection of Charges

Charges for statutory services, as referred to in Article 6, may be collected in accordance with the provisions of the Collection of Taxes Act (1961/367).

When collecting charges for other services, as referred to in Article 7, general provisions for the collection of civil and commercial claims shall be observed.

*Article 12***Further Provisions**

Further provisions on specific items of expenditure to be included in the calculation of cost price, penalty charges and interest for non-payment, payment periods, prepayment, collateral, waiver of claims, and other matters relating to collection, and otherwise for the implementation of this Act may be issued by regulation, with due regard to the provisions of Article 10.

*Chapter 5***ENTRY INTO FORCE AND TRANSITIONAL PROVISIONS***Article 13***Entry into Force**

This Act shall enter into force on 1 March 1992.

This Act shall repeal:

1. the *Criteria for User Charging Act* (1973/1980);
2. the *Criteria for User Charging for Official Acts and Documents by Certain Government Organisations* (1942/806), as amended.

Measures necessary for the implementation of this Act may be undertaken prior to its entry into force.

*Article 14***Transitional Provisions**

Regulations issued on the basis of the acts to be repealed by this Act shall remain in force until 31 December 1993, unless repealed prior to this date.

If other acts contain a reference to the acts repealed by this Act, they shall be deemed to refer to this Act.

TIME-BASED USER CHARGING FOR HIGHWAY USE: THE EURO-VIGNET

by

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INTRODUCTION

Taxation and user charges for road transportation are part of the European Union's (EU) programme for European harmonisation. The harmonisation initiatives in this area were decided in 1992/93 and include the following triad of EU Directives:

- fuel tax (Directives 92/81/EEC and 92/82/EEC);
- vehicle tax (Directive 93/89/EEC); and
- distance-based or time-based road user charges (Directive 93/89/EEC).

In Germany, there is no tradition for the third cornerstone of the triad, the road user charges. Nonetheless, an agreement was reached in 1994 between Germany and four neighbouring countries to introduce a time-based road user charge system known as the Euro-Vignet. This was an important step in the realisation of the EU internal market and the territorial principle, *i.e.* that revenue from road transportation should be matched with the costs associated with using road transportation.

BACKGROUND

All European countries have levied taxes on the ownership of private and commercial vehicles for many years. The tax rates on heavy trucks, employed mostly in long-haul traffic, varied in 1993 from 115 DM per annum in France to 10500 DM per annum in Germany. The vehicle tax is also regarded as a means to recover the cost of parking areas on public roads.

The consumption-oriented fuel tax should cover both the cost of road abrasion, which is caused by trucks much more than private cars, and the environmental burden of exhaust emissions and energy consumption (CO₂). This tax system yielded even revenue from international traffic (bilateral or transit) as long as the duty free volume of fuel was restricted to 200 litres in the truck's tanks when entering Germany. In general, foreign trucks needed to refill while in Germany. The revenue from these refills covered some part of their road abrasion. In the opening phases towards the EU internal market, the duty free volume of fuel allowed in the tanks of foreign trucks was increased step by step until in the end all restrictions were abolished. In addition, border controls between EU Member countries were eliminated. Trucks engaged in international long-haul traffic are generally equipped with very large-volume tanks. Thus, transport enterprises in the different EU Member countries could develop strategies for optimising fuel refills in order to minimise fuel costs. Fuel refills will be avoided in Member countries such as Germany with a relatively high fuel tax. Subsequently, there will be low or no tax revenue from foreign trucks, and therefore little or no contribution to the cost of road abrasion caused by them.

Italy, France and Spain have for decades used mainly state-owned enterprises to build new highways for long-haul traffic. The capital invested in these new highways is financed by tolls. The tolls are based on the specific route and distance travelled. These systems operate on a relatively small number

of toll booths. However, the systems have to bear high staff costs. This makes the systems expensive to operate although electronic cash systems are increasingly being used today.

In Germany, there has been a broad and long-lasting political consensus to regard the transport infrastructure as part of the country's political conditions. The use of the transport infrastructure was to be free of charge. Construction and maintenance were budget-funded. The highways were also a means to promote less developed regions of the country. As a result, German highways have many more exits than highways in Italy, France, or Spain. A highway with a large number of exits does not lend itself to a conventional toll system as used in other European countries. For the time being, only a time-based road user charge will help recover the cost of highways.

THE EURO-VIGNET AGREEMENT

The political compromise

In 1993, a political compromise was reached among Germany and four neighbouring countries to introduce a uniform time-based road user charge, the Euro-Vignet. This was the result of many years of negotiations which culminated in a special EU Transport Council Meeting on 19 June 1993 in Luxemburg. The five participating countries, Belgium, Denmark, Germany, Luxemburg and the Netherlands, signed a declaration of good will to introduce a time-based user charge for heavy trucks within the framework of a single uniform agreement. The EU Council Directive of 25 October 1993, on taxation of certain vehicles for goods transport and levying tolls or user charges on certain itineraries (Directive 93/89/EEC), fixed the political compromise. This Directive explains, *inter alia*, the overall preconditions for levying tolls or time-based road user charges. It also includes the minimum requirements for a road user charge agreement. The Agreement on Road User Charges of 9 February 1994 between the five countries is based on this Directive. It is limited to 25 years with an option to be extended.

The Agreement on Road User Charges

At the core of the Agreement are the following provisions:

- The Agreement Members levy a uniform charge for highway use on vehicles designated for goods transport with an overall weight of 12 tons minimum. Each Member is allowed to levy it not only for its highways but to extend it to the entire road network for its nationally-registered vehicles.
- The charges are differentiated for daily, weekly, monthly, or annual use. Members are allowed to levy annual road user charges only for their nationally registered vehicles.
- The charges, including administration costs, are set for vehicles *with up to 3 axles and 4 axles or more*, respectively, at 750/1 250 ECU for a year, 75/125 ECU for a month, and 20/33 ECU for a week. The daily rate is commonly set at 6 ECU. [See Appendix.]
- There are temporary 50 per cent reductions for vehicles registered in Ireland and Portugal (until end of 1996) and Greece (until end of 1997) based on economic, geographical and political reasons.
- The Euro-Vignet certificate is the proof of a distinctive payment.
- All practical problems in implementing this system are to be settled among the Agreement Member countries.

The Euro-Vignet as proof of payment

The Members agreed to introduce the Euro-Vignet, a printed certificate, as proof of payment rather than the Swiss-like vignet, a stick-on label.

The road user charge is levied on all trucks, or vehicle combinations, used for goods transport with an overall weight of 12 tons minimum. This is regardless of whether the truck is carrying a payload. There is thus an obligation for all heavy trucks to purchase a Euro-Vignet. Buses, coaches and self-propelled road working machines are exempted. The Euro-Vignet is delivered only for a specific vehicle; it cannot be transferred to other vehicles within the same enterprise's fleet. The amount of the road user charge is equal in all Agreement Member countries; a single Euro-Vignet permits a truck to use the highways of all Agreement Member countries.

The Euro-Vignet and its delivery is designed to be secure against manipulation and fraud. Bank note paper is used, including water marks, as a primary means of security. The paper also contains a silver fibre as a secondary means of security. The Euro-Vignet is printed in the 5 languages of the Agreement Member countries.

In addition, an automatic printing procedure has been established which prints a variable field as a third means of security. The variable fields are:

1. the motor vehicle's registration number and country of origin;
2. the amount of the road user charge;
3. the validity period;
4. the amount paid;
5. the date and hour of payment.

There was an acute need to set up a network of stations to sell the Euro-Vignet and to link them to a central computer centre in order to aggregate all necessary revenue data. The establishment of the system was the responsibility of each Agreement Member country. Stations selling the Euro-Vignet were also set up in the capitals of EU Member countries which were not members of the Euro-Vignet Agreement. A belt of 233 stations has been installed around the Agreement Member countries.

The distribution of revenues

The distribution among Agreement Member countries of the combined revenue accruing from the Euro-Vignet was a key issue in negotiating the Agreement.

Members retain revenues collected from enterprises located in their respective countries.

Revenue from an enterprise located in another Agreement Member country will be corrected by an agreed factor. This factor is based on driven distances in other Agreement Member countries in 1992. It will be compiled to a driven distance balance between Agreement Member countries which is then multiplied by price (average annual rate per kilometre). This correction is negotiated bilaterally between the Agreement Member countries.

Revenue from third country enterprises are shared along an agreed factor, based on the length of each national highway network. In 1996, Members shared third country revenue as follows:

Belgium	13%
Denmark	4%
Germany	73%
Luxemburg	1%
Netherlands	9%

Implementation of the Euro-Vignet

Belgium

All Belgian enterprises must purchase an annual Euro-Vignet for their trucks. The road user charge for Belgian trucks extends to the whole Belgian road network. Foreign trucks need only purchase the

Euro-Vignet for using Belgian highways. Foreign enterprises can choose between all timely differentiated rates. Implementation date: 1995.

Denmark

All Danish enterprises must purchase an annual Euro-Vignet for their trucks. The road user charge for Danish trucks extends to the whole Danish road network. Foreign trucks need only purchase the Euro-Vignet for using Danish highways. Foreign enterprises can choose between all timely differentiated rates. Implementation date: 1995.

Luxemburg

There are two systems. Luxemburg enterprises which perform *professional* haulage must purchase an annual Euro-Vignet for their trucks. The road user charge extends to the whole Luxemburg road network. Luxemburg enterprises which are engaged in *non-professional* haulage, *i.e.* construction companies, can purchase a Euro-Vignet valid for less than a year. The road user charge is, however, limited for using highways. Foreign enterprises are treated the same as *non-professional* Luxemburg haulage enterprises. Implementation date: 1995.

Netherlands

Dutch and foreign enterprises are free to choose all timely differentiated Euro-Vignets. Implementation date: 1996.

The Co-ordination Committee

The Co-ordination Committee governs the co-operation between the Agreement Member countries. Each Member chairs the Committee for one calendar year. Belgium chaired the Committee in 1995 and Denmark in 1996. Germany chairs the Committee in 1997.

The Co-ordination Committee operates on agreed rules of procedure. It governs all duties of common interest. The Committee's most important tasks are the distribution of third country revenues and the annual adjustment of the national rates of the road user charge to the official European Currency Unit (ECU) exchange rate.

All decisions of the Co-ordination Committee must be unanimous.

Annual adjustment of the national rates

Article 11 of EU Directive 93/89/EEC and Article 8, paragraph 7, of the Euro-Vignet Agreement set the charges for the different types of Euro-Vignets in ECU. They also contain provisions on how to convert them to national currencies. This is performed by using the ECU exchange rate in effect on the first working day of each October. This is then valid for the following year. The Co-ordination Committee formally votes on the charges based on these rules.

Exemption of combined transports

From the very beginning, Germany attempted to exempt combined transports from the road user charge. For example, the transportation of sea containers between ports and final regional destinations via highways. This exemption was not commonly accepted in the negotiations for the Euro-Vignet Agreement. The Agreement failed to contain such an exemption.

Germany did not drop its interest in exempting combined transports from the road user charge. Subsequently, this topic was renegotiated with the Agreement Member countries. On 3 September 1996, an additional agreement on exempting combined transports was concluded. It will

be formally signed at the same time as the protocol on the Swedish accession to the Euro-Vignet Agreement.

The Swedish accession

As a new EU Member, Sweden was interested in joining the Euro-Vignet Agreement. The existing Members negotiated with Sweden about the conditions for Sweden's accession to the Agreement. An accession protocol was subsequently agreed in June 1996. However, Sweden had reservations about extending the road user charge to *E-Roads* in the Arctic North and on certain rules of procedures to be applied. These reservations relate to EU Directive 93/89/EEC. Therefore, the European Commission has to consider Sweden's reservations. The date of signing the accession protocol is therefore unknown today.

At Sweden's accession to the Agreement, the share of third countries' revenues will change as follows:

Belgium	12.31%
Denmark	3.79%
Germany	69.16%
Luxemburg	0.97%
Netherlands	8.52%
Sweden	5.25%

Further possible accessions

In the course of the negotiations with Sweden, both Finland and Norway indicated interest in joining the Euro-Vignet Agreement as well. Finland is a new EU Member; Norway is a member of the European Economic Area (EEA).

GERMANY

Germany ratified the Euro-Vignet Agreement by a special law (ABBG) on 30 August 1994. This law also contains the necessary legislative framework for introducing the Euro-Vignet. Implementation date: 1995.

Administration

Article 2 of the ABBG directs the Federal Office of Goods Transport (BAG) to administer the Euro-Vignet system in Germany.

BAG decided to contract out the operation of the Euro-Vignet system. Following a public tender, a contract was signed with the AGES company. AGES operates about 5500 stations in Germany and manages the belt of 233 aforementioned stations around Agreement Member countries. Denmark operates its own system for all Nordic traffic heading to Denmark.

Enforcement of the road user charge system is mostly carried out by BAG's Traffic Surveillance Branch. Toll authorities, the border police and the state police support BAG in this function. BAG started enforcement operations in the first quarter of 1995 in order to get enterprises acquainted with the new obligation to pay road user charges. The failure-to-comply rate decreased from 10% in the beginning to around 2% currently. Foreign drivers had some misunderstandings about the new road user charge system in the beginning. Now, their failure-to-comply rate is lower than that of German drivers. The most common compliance failure was to not show the appropriate Euro-Vignet at traffic controls.

Revenues, costs and reimbursements

In fiscal year 1995 (December 1994 to November 1995), gross revenues from the road user charge amounted to about 834 million DM. Net revenues, after reimbursements and administrative costs, were about 732 million DM. The cost-revenue ratio is therefore 9.8%, which is regarded as extraordinarily good for such a system.

In fiscal year 1996, gross revenues amounted to about 736 million DM. Net revenues were about 696 million DM. The cost-revenue ratio was 10.6%.

Revenue estimates

The Dornier Company estimated that revenues from the road user charge for heavy trucks in Germany would amount to 700 millions DM per annum. This estimate was overshoot by 134 millions DM in the first fiscal year. One reason is that the Netherlands implemented the user charge not in 1995 but in 1996. In 1995, Dutch enterprises therefore had to purchase the Euro-Vignet for using German highways in Germany. In 1996, they could buy them in the Netherlands and the German revenues fell back. This confirmed the soundness of Dornier's original estimates.

FUTURE DEVELOPMENTS

The Euro-Vignet system has operated well since 1995. There are, however, two developments that may affect the future operations of the system.

Directive 93/89/EEC

The European Court of Justice ruled on 5 July 1995 that EU Directive 93/89/EEC was invalid due to legislative reasons, but that it should remain in effect until a new Directive could be issued. In October 1996, the Commission sent a proposal to the Council and the European Parliament. This proposal contains new rates of vehicle taxes and new rates for the time-based road user charge. This proposal takes into account the damage class of a truck as well as its exhaust emissions. The proposed rates of the road user charge vary from 750 ECU to 2000 ECU per annum. The discussion of this proposal in the Transport Minister's Council has been extraordinarily difficult as the Commission's proposal seems to be too complicated. The majority of EU Member countries feel, as shown by unanimous voting in the EU Economics and Finance Council (ECOFIN), that it is simply better to renew the old Directive with minor adjustments. This discussion is, however, still open.

Electronic road pricing

Distance-based road user charges (tolls) are well known from Southern Europe. Replacing today's time-based road user charges with such charges can be justified in terms of transport, environmental and fiscal policies. Electronic road pricing under such a system may optimally and correctly allocate costs to national and international traffic. As such flexible tariffs can act as steering mechanisms, they may serve to ease traffic peaks, avoid congestion and reduce empty haulage. New systems of electronic road pricing are currently being developed in Germany, Austria, Netherlands, Sweden and the United Kingdom. The inter-operability between different road pricing systems will gain political importance in Europe.

Euro-Vignet Tariffs

Axles	Max. 3		Min. 4	
	ECU	DM	ECU	DM
1 day	6	11.53	6	11.53
1 week	20	38.44	33	63.43
1 month	75	144.16	125	240.27
1 year 1995		1 441.60		2 402.66
1 year 1996	750	1 411.31	1 250	2 352.78
1 year 1997		1 439.19		2 398.65

USER CHARGING FOR PRIMARY AND SPECIALIST DOCTOR SERVICES IN ICELAND

by

Olafur Hjalmarrsson, Deputy Budget Director, Ministry of Finance, Iceland

RATIONALE AND MOTIVATION

In Iceland, there is a long tradition of user charges for outpatient services such as pharmaceuticals, physiotherapy, visits to doctors and sundry items. In 1990, the government decided to abandon modest flat-rate user charges for primary care services and, as a result, visits to primary care institutions increased by 10 per cent according to estimates made by the Social Security Institution. When a new government took office in 1991, its main goal was to eliminate the Treasury deficit by reducing government expenditures. As the health sector is a sizeable and growing part of total government spending, emphasis was placed on controlling health care expenditures. Fixed caps or frames were imposed on hospital running costs and other inpatient expenditures, but then was less control on transfer payments from the Health Insurance Fund financed by the Social Security Institution.

To combat growing costs, fees to primary care doctors were reintroduced in 1992 and fees to specialist doctors increased. As a result, visits to primary care doctors fell by 10.6 per cent from the previous year and reported visits to specialists by 4.9 per cent. The following year some further changes were made in the fee structure to specialist doctors and exemptions to those who often have to use the services were re-estimated. The government had on its agenda to further monitor the use of outpatient services. Near the end of its term of office in 1995, the former Minister of Health introduced regulations on a gate-keeping scheme where primary care doctors would act as gate-keepers. A fierce debate followed the gate-keeping proposals which put a wedge between general practitioners and specialist doctors and the scheme was abandoned.

The main rationale for the user charges was to reduce Treasury spending on outpatient services. Other goals were to reduce unnecessary visits to doctors and thus reduce a possible waste of resources. By charging considerably higher fees for specialist services than for those of general practitioners, the aim was to direct patients to primary care institutions.

GOVERNMENT POLICY

There is no reference to user charges in the government's Policy Statement. In its agenda on the modernisation of public activities there is, however, the following statement on user charges: "Decisions are to be moved closer to the government body concerned to enable public executives and employees to set priorities for their institutions and charge fees for the services, within certain defined limits." The government has appointed three committees in the last few years to examine existing user charges and make proposals for new ones where appropriate. It is the responsibility of individual ministers to change existing fees or to introduce new charges to meet budgetary caps set by the government.

The authority of a government body to charge for its services has to be granted in legislation and it is not legal to charge more than the cost of delivering the services. Within these limits user charges can

be decided or adjusted by the public agency concerned or by regulations. In some cases, it is unclear what costs can be accounted for when it comes to indirect costs. The general rule is that if such indirect costs are to be included in the charge, it must be specified by law. It is not possible to use revenues from user charges to finance unrelated government expenditures. All charges that exceed the cost of delivering the services must be returned by direct repayments or by fees temporarily lower than the costs, unless the *amount* of the charge is decided by law as other taxes. The decision to change or adjust the amount of such a tax cannot be made by the government body concerned, but has to be decided by the legislature. In some cases, it is permitted by law to adjust charges or taxes in accordance with prices by some predefined rules and indexes. The main exception from these pricing rules is when the government is selling services in the open market in competition with other sellers. Then the law on competition policy applies and the prices of the services are decided by the respective government firm or institution or, rather, by the market. In these cases privatisation is in the government policy statement.

USER CHARGES FOR OUTPATIENT SERVICES

Outpatient services in Iceland mainly consist of primary health care centers run by the government and several private specialist clinics. Hospitals also run outpatient services for their clients. Primary care doctors (general practitioners) are salaried and get fees from the Social Security Institution for each consultation, based on a special fee schedule. In 1992, salaries accounted for 52 per cent of the income of GPs and unit fees 48 per cent. Specialists working in hospitals have the permission to run private clinics for outpatient services. As a result almost all specialist clinics are run by doctors who also work in hospitals. Specialists working at private outpatient clinics are on a fee-for-service contract with the Social Security Institution (SSI) and collect co-payments from the patients. In 1995, a total of 377 clinical specialists were on contract with the SSI. Specialists also run private laboratories and radiology services that are outside the scope of this paper. The health care centers are mainly run by the government, which pays doctors salaries and all other costs such as salaries of nurses and other staff, housing costs, pharmaceuticals, etc., less any user charges. There is only one privately run health care centre and 19 self-employed general practitioners, compared with a total of 54 health care centers and 170 primary care doctors.

In January 1992, user fees to primary care doctors were re-established with a 600 ISK fee for each visit for adults and 200 ISK fee for pensioners. Children under the age of six paid no fee and a 200 ISK fee was charged for children from six to fifteen years old. At the same time, fees to specialists were raised from 900 ISK to 1 500 ISK for adults, and from 300 ISK to 500 ISK for pensioners. To reduce the effects on those who have to use the services often and for families with many children, a special free-card was issued when total spending for an adult exceeded 12 000 ISK and 6 000 ISK for children in the same family and 3 000 ISK for pensioners. The card entitled visits to GPs and specialist doctors free of charge, after the threshold was met. The card expired at the end of each calendar year.

As expected, the number of visits to GPs and specialists fell from the previous year and units of work billed to the Social Security Institution for each visit increased. If minor or unnecessary visits are eliminated, the average cost on each visit would increase. If we look at visits to GPs, the total number fell by 10.6 per cent but, as billed units for each visit increased by 2.9 per cent, the total units of work paid by the Social Security Institution fell by 8 per cent. Interestingly, the visits to specialist doctors fell by 4.9 per cent, but units per visit increased by a hefty 8.7 per cent, resulting in 3.4 per cent increase in total units and thus increasing the total income of specialists. Part of the increases can be explained by a new contract between the SSI and specialists increasing the calculated units for common procedures in May and September 1991.

At the beginning of 1993, major changes were made to the system. The large number of issued free-cards gave people free access to the services and flat-rate fees made it possible for doctors to use more resources on each patient as the number of visits fell. The free-cards were replaced by discount cards that give the holder access to services for one-third of the regular fee, and a 200 ISK fee for

children under six years of age was introduced in the primary health care centers. Thus visits to doctors were no longer free of charge to the user, except for organised maternal care and child health care. Furthermore, proportional charges were introduced for specialist doctor services, such that the insured pays 1 200 ISK and 40 per cent of the remaining amount of the bill.

As a result of the above changes, visits to the primary health care centers only increased by 0.5 per cent from the previous year and the units of work on each visit rose by 1.7 per cent. Visits to specialists declined by 5.7 per cent and units per visit fell by 1.7 per cent, resulting in a 7.3 per cent reduction in total units worked. The changes are shown in Tables 1 and 2.

The data on number of visits and units of work are from the SSI and show reported visits billed to the SSI. Because of different fee structures, the units of work and payments for each unit differ between GPs and specialists. The GPs only receive a portion of their salaries through the unit fees while the fee to the specialists is for full services, all costs included. Furthermore, as specialists keep the user charge and bill the SSI for the difference between the total bill and the user charge, the amount of the user charge affects the number of bills/visits reported and thus the average units per contact. In Table 2, the units of work include both units paid by the SSI and the patients. At the margin, where the SSI only pays a fraction of the bill, increased patient share could result in fewer bills to the SSI. Attempts to correct for this effect are discussed in a later section.

The user charges for health care only account for 10 per cent of the total cost of the health care, while user charges pay for more than 50 per cent of specialist services.

Table 1. **Primary health care**

	User fee (ISK)	Visits (thousands)	Units of work ¹ (thousands)	Units per visit	Cost of the SSI (million ISK)
1990	0	–	–	19.6	307.5
1991	0	567.0	10 870.6	19.2	396.5
1992	600	506.8	9 998.8	19.7	354.9
1993	600	509.5	10 225.0	20.1	358.8
1994	600	506.5	10 380.8	20.5	372.6
1995	600	521.0	11 119.7	21.3	417.9

1. Units of work are not comparable between specialists and primary health care. Visits are to doctors and excludes visits because of organised maternal care, child health care, radiology and research.

Source: Social Security Institution.

Table 2. **Clinical specialists**

	User fee (ISK)	Visits (thousands)	Units of work ¹ (thousands)	Units per visit	Cost of the SSI (millions ISK)
1990	900	335.9	7 513.4	22.4	n.a.
1991	900	355.3	8 368.2	23.6	n.a.
1992	1 500	338.1	8 654.7	25.6	n.a.
1993	1 200 +40%	318.8	8 021.3	25.2	n.a.
1994	1 200 +40%	327.4	8 199.6	25.0	593.8
1995	1 200 +40%	331.0	8 467.2	25.6	572.6

1. Units of work are not comparable between specialists and primary health care. Visits are to doctors and excludes visits because of organised maternal care, child health care, radiology and research.

Source: Social Security Institution.

FEE STRUCTURE AND SPECIAL ACCOMMODATING MEASURES

As already mentioned, the charges were expected to have different effects on different groups, and fees for children and pensioners are therefore considerably lower than for others. Discounts are also given to those who use the services frequently once their user charges have reached a certain threshold in a calendar year. The main structure is shown in Table 3.

Table 3. **Fee structure**

	Charge to		Annual threshold (ISK)	Discount after threshold
	GPs	Specialists		
General fee	600 ISK	1 200 +40%		
General users	100%	100%	12 000	1/3
Children of same family	1/3	100%	6 000	1/3
Pensioners	1/3	1/3	3 000	1/3

As can be seen from Table 3, pensioners with discount cards only pay one-ninth of the general fee. The threshold for being eligible for a discount card is also low for children, and children under the age of 16 in the same family are under a mutual limit. Those who have been unemployed for six months or more pay the same charges as pensioners. This structure has resulted in relatively many discount cards and on average low payments from pensioners and children. This can clearly be seen as the average full paying user pays 2 300 ISK for each visit to specialists. Charges counted against the threshold are bills due to visits to specialists, GPs and charges for radiology and pathology research. For some procedures, the patient has to pay in excess of the limit and then receives a refund from the Social Security Institution and is then issued a discount card, after which he only has to pay one-third of the general fee. The specialist doctor keeps the user charge and only receives the difference between the charge and the payment for his work from the Social Security Institution.

The SSI has a special repayment scheme for those who have low income and have had to pay substantial amounts for medical care and pharmaceuticals. Depending on annual income and the amount paid, the insured receive proportional repayment of up to 90 per cent of the costs. This scheme is only used by a few insured persons each year and only costs 4 to 5 million ISK compared to a total of 6 380 million ISK in private consumption on health in Iceland.

REACTIONS OF USERS; CHANGES IN PATTERN OF DEMAND

Primary health care visits fell substantially when the user charges were reintroduced and have not reached former levels, as shown in Table 1 above. Estimates based on samples made by the SSI show that visits increased by around 10 per cent when the fees were abandoned in 1990 but due to lack of comparable data no information is available on total visits before 1991. No data are available on which patients no longer visited the clinics when the fees were reintroduced, but according to information from health care centers more patients seek information and help by telephone than before. It seems that minor visits due to renewals of prescriptions and minor problems have been solved by other means than direct contacts.

If we look at changes in visits to specialists, the reduction is similar over two years to that primary care, following increases in user charges in the years 1992 and 1993. One would expect visits to specialist doctors to occur because of more severe health problems than those involved in visits to the health care centers, where the first contact with the health care system is expected to take place.

According to samples made by the Ministry of Health and the medical profession, only 20 per cent of the clients of specialists have a referral from health care doctors. Other patients visit specialists directly or in connection with hospital discharges. As the specialist only receives the difference between the charge and the fee for his work from the SSI, fewer contacts are reported to the SSI if the user charge is raised. This is not a problem in primary health care data where the doctor bills the SSI directly, independent of the user charge, which the primary health care centre receives directly.

It is possible to estimate this bias by looking at the frequency of contacts in different price groups and calculate the effects of changing the user fee. By approximating this effect, the calculated reduction in contacts in 1991 due to the increased user charge was 4.5 to 5.5 per cent and the reduction of total units around 2.5 per cent to 3 per cent. This means that the reduction in contacts in Table 2 is overstated and the number of units worked understated. In 1992 visits to specialists probably declined by only 0.5 per cent from the previous year, and total units increased by around 6-6.4 per cent compared with 3.4 per cent in the unadjusted data. This result is somewhat uncertain because of difficulties in estimating the effects of free-cards. As mentioned above, a new contract between the SSI and specialists increased the number of calculated units for common procedures and explains part of the increase. The effects of free-cards in the latter half of 1992 is the most probable explanation for the remaining increase.

In 1993, we would expect the reverse effect as the basic user charge was reduced from 1 500 ISK to 1 200 ISK and 40 per cent of the cost exceeding 1 200 ISK. One would expect more visits reported and fewer units per visit. In Table 2, reported contacts with specialists declined by 5.7 per cent and total units, including the user charge, by 7.3 per cent. This change in the structure of the user charge for specialist services led to lower user charges for simple treatments but higher charges for more complicated procedures. Free-cards were replaced by discount cards resulting in higher costs for repeated visits. The reduction in visits and units worked in 1993 was more than expected when the user charges were changed.

If visits to specialists are due to more severe health problems the reduction can only be explained by patients seeking other solutions, visiting health care centers or hospitals, by supplier-induced demand or patients postponing their visits.

According to the data in Table 1, visits to health care centers increased only by 0.5 per cent, or by 2.7 thousand visits in 1993 at the same time as visits to specialists fell by 19.3 thousand. As access to hospitals is free of charge, a patient who is admitted to a hospital for at least one day paid no charge for the specialist services received even if the procedure was the same as would normally be carried out in outpatient facilities. This has possibly led to some admissions to hospitals that should normally be solved in outpatient clinics and charged for. But as hospital finances have been strained, the move has also been the other way around and an increasing number of procedures are carried out outpatient facilities and by shortened stays. Data on admissions to hospitals shows a marked increase in one-day stays from 1991 to 1992 or by 19 per cent, but total admissions increased by 3.9 per cent. Preliminary data on hospital outpatient services show a 4.9 per cent increase from 1991 to 1992 and a 5.1 per cent reduction from 1992 to 1993. Now hospitals have to charge the same user fee as private specialist doctors for the same procedure if it normally does not lead to hospital admission.

There seems to be little evidence of people postponing their visits or not seeking necessary help at all due to the charges. As previously mentioned, the charges are not very high for most procedures and, if the patient has to use the services often, discount cards reduce the costs of each contact substantially. Lower charges for pensioners and a special fund at the SSI should reduce the risk of undertreatment. In fact, low thresholds for discount cards and low user charges for pensioners probably still cause a risk of overtreatment. Finally, many trade unions run sickness funds and support or repay medical bills for their clients according to special rules and applications.

The labour unions in Iceland protested against the increases in user fees and some of the mitigating measures were taken because of pressure from the unions. In Iceland, there is a highly centralised labour market and a high participation rate in unions. Wage agreements have expired at the same time for the largest part of the labour market, giving the unions power to negotiate special packages from the government.

Table 4.1. **Visits to in- and outpatient services**
(thousands)¹

	Health care	Specialist clinics	Hospital outpatient	Hospital admissions	
				0-1 day	Over 1 day
1991	567.0	355.3	224.0	5.0	41.0
1992	506.8	338.1	235.0	6.0	41.9
1993	509.5	318.8	223.0	5.1	43.3
1994	506.5	327.4	229.0	4.9	42.6
1995	521.0	331.0	na.	5.2	43.2

1. The data in this table are from different sources and have not been co-ordinated. The data on health care visits covers only visits due to doctors' clinical work and excludes organised maternal care and child health care. The data on health care and specialists visits is from the SSI. The data on outpatient services of hospitals is from the Directorate General of Public Health and shows all visits (incl. maternal care) except radiology and research. The data on hospital admissions is from The Ministry of Health and shows general hospital admissions.

Table 4.2. **Changes from previous year**
(percentage)

	Health care	Specialist clinics	Hospital outpatient	Hospital admissions	
				0-1 day	Over 1 day
1991	na.	5.8	3.2	28.6	0.0
1992	-10.6	(-0.5) ¹	4.9	18.8	2.1
1993	0.5	-5.7	-5.1	-14.8	3.3
1994	-0.6	2.7	2.7	-4.7	-1.6
1995	2.9	1.1	na.	7.3	1.6

1. According to the data from the SSI, the reduction in visits to specialists is 4.9 per cent in 1992 but, as explained in the text, effects of increased user charges on reported contacts has been estimated.

REACTIONS OF SUPPLIERS

When the changes took place in 1992, there was no major resistance from the medical profession. The charge to specialists was increased by the same amount as the 600 ISK charge introduced in the primary health care system, but in 1993 the user charge to specialists became considerably higher than to GPs due to proportional payments. The specialists accepted this rather than other direct monitoring such as gate-keeping. Faced with a 10 per cent reduction in visits, the Federation of Health Care Doctors has proposed that the fees to primary health care centers should be abandoned and emphasis placed on first contact at the primary health care centers. The primary health care doctors have also lobbied for a gate-keeping scheme and used as arguments both health policy and better use of resources and savings. The specialists have opposed such schemes on the grounds that it would hamper the ability of patients to freely choose their doctor and, on the contrary, such a scheme would only be more expensive as patients would have to go first to the primary health care doctor to get a referral to the specialist, resulting in increased number of contacts to the health care system. When the government scrapped the gate-keeping scheme a new agreement was made between the SSI and specialists in 1995, where the total number of units of work paid for by the SSI each year was fixed, and the specialists give the SSI a discount if actual units are higher than the negotiated threshold. New specialists are not automatically accepted under the contract to the SSI as before when total units of work each year was not defined. The Association of Young Doctors has opposed this contract and fought for changes. The specialists have

recently given notice to terminate the contract and the main reason is the access of new specialists. The primary health care doctors concluded a new contract in 1995 with the SSI after difficult negotiations and in 1996 they resigned as a group for six weeks in order to obtain increases in their salaries.

CONCLUSIONS

In light of the experience of changes in user charges for outpatient medical services in Iceland the following conclusions can be drawn:

- If properly designed, user charges reduce demand for outpatient services and can reduce the risk of supplier-induced demand.
- The user charges must apply to the whole health care system covering the same procedures, independently of who delivers the service. The system should thus cover both in – and out – patient services.
- The charge should be uniform for the same services and should not affect the choice of the insured except if it is thought to be important to do so. Measures to affect the choices of the insured should be openly and clearly stated in the government's health policy.
- The system should be as simple as possible and must be well promoted to the insured. All deductions or exemptions should be kept to a minimum.
- Where possible the payments should be proportional or linked to the cost of the services. This is especially important where deliverers are on a fee-for-service basis.
- If it is necessary to exempt some groups from paying full user charges, these groups should be well defined and, if possible, no group should be exempt from paying at least some charge.
- If groups pay flat rate charges, or low user charges, it is necessary to implement further restrictions on the use or on the supply of the services.

USER CHARGING FOR RETIREMENT AND NURSING HOMES IN LUXEMBURG

by

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RATIONALE FOR USER CHARGING

In Luxembourg, the government has been constructing and operating retirement and nursing homes for the past thirty and fifteen years, respectively. This fact is explained primarily by the need to make up for:

- a shortage of retirement homes; and
- a near total lack of nursing homes.

These shortages are mainly attributable to the cost of the services and the limited finances of a large proportion of the population who benefit from the services.

As the government is providing services which should normally be delivered by the private sector, or are delivered by the private sector in insufficient quantity, it is considered natural for the residents of these establishments to pay charges for the services they receive.

The amount of the charges is a function of a benchmark cost price established by Ministerial Ordinance.

The revenue from the charge is intended to offset, at least in part, the cost of the services provided. The revenue, however, does not accrue directly to the organisations providing the service but rather to the general Treasury. As a result, the user charges have very little impact on the management of the organisations.

Conversely, the fact that the amount in question is very limited (circa 0.3 per cent of total Treasury receipts) means that it is only a small and relatively insignificant additional source of government revenue.

GOVERNMENT USER CHARGING POLICY

There is not an overall government policy on user charging in Luxembourg. This is because user charges are levied for only a very limited number of services.

There are, however, certain basic principles underlying user charging for retirement and nursing homes. These include the establishment of a benchmark charge that is the same throughout the country and is based on the average running costs of the category of establishment concerned. This benchmark charge is then reduced for individual users based on their income and assets.

Two particular characteristics of government retirement and nursing homes in Luxembourg need to be noted:

- Although they are similar types of institution, retirement and nursing homes come under the jurisdiction of two different ministries, the Ministry of Health and the Ministry for the Family. For various reasons, the two ministries have different pricing policies and do not employ the same criteria for means-testing users.
- The charges cover only a very small proportion of costs in excess of normal accommodation costs, *i.e.* they do not reflect the residents' dependency costs (health care, etc.).

In future, a new type of compulsory social insurance – dependency insurance – should finance the bulk of these costs. Charges at government nursing and retirement homes could then solely reflect accommodation costs and light dependency costs not covered by dependency insurance.

IMPACT OF USER CHARGING ON DEMAND FOR SERVICES

Demand for retirement and nursing home services has been almost completely unaffected by the user charges. First, admission to retirement and nursing homes is a necessity, or even an emergency, for the majority of users. Second, the government never intended to charge the full price for the service, but instead set a fee slightly below the level of average retirement and survivor's pensions. Third, the user's financial resources are taken into account and the individual charge reduced accordingly.

OTHER POLICY OBJECTIVES

Neither the principle or the actual implementation of user charging in this sector has prompted much public debate. Demand for these services and their costs are, however, surging – particularly capital costs and staff costs. If some sort of relationship is to be maintained between actual costs and the difference to be met by the government, user charges in this field need to be raised substantially and at regular intervals.

In the past, these increases used to be more or less counterbalanced by the significant increases in pension benefits. Today, the charges necessitated by growing demand and costs tend to equal or even exceed average pension benefits. The effect of this is to turn an excessively large number of people, whose social situation in no way makes them disadvantaged or insecure, into recipients of welfare benefits.

When such benefits are means-tested, the financial resources of the users have to be investigated. This practice is something normally only used in the welfare context.

The introduction of dependency insurance, as referred to above, is primarily a means to counter this development.

ABILITY TO PAY

The benchmark charge for residential and nursing homes is well in excess of the resources available to a large number of lower-income pensioners. However, the manner in which this benchmark charge is reduced by taking the user's income and wealth into account means that the charges do not have an adverse impact on lower-income pensioners.

LEGAL BASIS FOR USER CHARGING

Charges were set for many years by Ministerial Ordinance on the basis of the "cost of the service, and the requirements for government revenue for the fiscal year in question". In December 1984, a more precise legal basis for user charging was established. The 1985 *Finance Act* contained a provision

stipulating that both the amount of charges and their collection arrangements should be set annually by a Grand Ducal Ruling.

The Grand Ducal Ruling itemises elements to be included in the calculation of charges. As of March 1997, the maximum charge per month (*i.e.* benchmark charge) was LF 69 000 for nursing homes and LF 46 500 for retirement homes in addition to supplemental charges depending on the degree of dependency, with an overall maximum for supplemental charges of LF 18 000. The Grand Ducal Ruling also contains criteria for reductions from the benchmark price for individual users. These relate primarily to the manner in which the charges are to be means-tested based on the user's income and assets, but also to the degree of comfort of the accommodations, single vs. shared occupancy, etc. Coefficients corresponding to the degree of comfort of the accommodations are laid down by Ministerial rulings.

It should be noted that Article 104 of the Constitution states that "apart from cases formally accepted in law, no payment can be demanded of individuals ... (other than) in the form of a tax paid to the government". The provision in the 1985 *Finance Act*, as noted above, was intended to establish by law the collection of charges for nursing and retirement homes which constitutes an exception to the principle of financing government expenditure by means of taxation.

EXISTING FEE-SETTING MECHANISM

In principle, the starting point for setting the benchmark charges for nursing and retirement homes should be the average cost price of each of the two categories of establishments.

In practice, there are, however, significant deviations from this principle:

- The cost price has never included major investments or depreciation.
- The Ministry of Health applies the same benchmark charge for a given category of room in a nursing home, regardless of the level of dependency of the residents. Conversely, the Ministry of the Family applies variable charges according to the level of dependency of the residents.
- The charges cover in most cases the cost of accommodation, excluding investment and depreciation costs. Costs related to the dependency level of residents are, however, only covered to a very limited degree. This is especially the case as health care costs have increased considerably over the past decade.
- Finally, political considerations determine the amount of the charges each year to a much greater extent than any cost calculations, even if a loose parallel does exist between the two.

As noted above, a system of coefficients is used by each ministry to adjust the benchmark charges according to the degree of comfort of the rooms. For nursing homes, the reductions range between 3.3 and 6.1 per cent, or more if refurbishment work is in progress. For retirement homes, the reductions range up to 20 per cent, and premiums range up to 10 per cent.

The benchmark charge is also reduced if the room is occupied by a couple, depending on whether it is a single room (10 or 20 per cent reductions) or a double room (15 per cent reduction). Reductions also apply if the resident is temporarily absent.

When the resident's monthly income (pension and other income) is less than or equal to the charges established for his room, the following means-testing arrangements are used:

- The resident is left a standard amount (LF 7 000) as pocket money.
- When the resident has a savings account, he pays the full price until his savings are drawn down to a set amount (LF 100 000). Otherwise, the maximum monthly payment is equal to his monthly income, less the amount allowed as pocket money.
- When the resident has no savings, but does own real estate whose value exceeds a fixed amount (LF 5 300 000), the current Grand Ducal Ruling calls for a bond to be issued by the resident. The

amount of the bond is equal to the difference between the amount due and the monthly amount paid. The bond is paid from the resident's estate.

COLLECTION OF USER CHARGES

The user charges are payable on a monthly basis as set by each of the two ministries. Actual payments generally take the form of an electronic transfer of funds to the account of the respective institution. The cost of collection is therefore small, although it has not been specifically calculated.

LESSONS LEARNED

The above discussion has revealed two major problems with the current system:

- the difficulty of coping with rapidly rising demand for services and higher operating costs;
- the divergent manner in which the two ministries administer the system.

In view of these problems, particularly the second one, an interministerial committee was established in 1992 to create a uniform method for setting and adjusting both the benchmark charges and the procedures to be followed when residents lack the resources to pay the charges.

The committee disaggregated the costs into three separate components: accommodation, dependency and major investments. The committee drew up a uniform system for calculating charges based on the cost of accommodation and light dependency. This was to be paid by the resident. The other cost components, dependency and major investments, were to be paid by the government. The cost of dependency would later be financed by the proposed dependency insurance scheme.

It proved impossible, however, to reach a consensus between the two ministries on either the cost of accommodation and light dependency, or on how residents who lacked financial resources were to be treated. The differences still remain.

A bill introducing the dependency insurance scheme has been submitted to Parliament. There may, however, be problems with administering the dependency insurance scheme as it calls for a standardised payment to retirement and nursing homes while the actual costs are highly variable among individual institutions.

USER CHARGING AT THE BARCELONA FIRE DEPARTMENT

by

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FIRE-FIGHTING SERVICES IN SPAIN

Public authorities' responsibility

Fire prevention, extinction and rescue services are included among the functions of Civil Protection. The Spanish Constitution assigns simultaneous jurisdiction over these services to both the State and its autonomous communities.¹ The State is responsible for these services when the area to be protected is national or exceeds the territory of a single autonomous community. Otherwise, autonomous communities and local governments are responsible for fire fighting services.

The Basic Law on Local Government (*Ley de Bases de Régimen Local*) assigns local governments powers in civil protection and fire fighting. The law requires that all towns with populations of more than 20 000 inhabitants provide these services. Thus local fire-fighting services exist in large and medium-sized cities. The rest of the territory is covered by the services under the jurisdiction of the autonomous community or, in some cases such as the Basque Country, the Balearic and Canary Islands, the provincial governments.²

In accordance with national legislation and their own regional Statutes of Autonomy, the various autonomous communities have passed their own regional laws regulating fire fighting. These laws respect local government powers to enact municipal ordinances regulating delivery of these services and the levy, collection and management of the fees charged the public for these services.

The case of the Barcelona City Council

The legal grounds for the Barcelona fire-fighting service are the Law on Municipal and Local Government in Catalonia³ of 15 April 1987 and the Catalan Law of 4 May 1994 which governs fire-fighting and rescue services in Catalonia. The first of these laws recognises municipal autonomy in terms of fire-fighting and reiterates that such services are mandatory in towns with more than 20 000 inhabitants. The second regulates the delivery of fire-fighting services for all of Catalonia.

Both national and regional legislation clearly stipulate that local governments are empowered to deliver and charge for fire fighting services. In order to discover the criteria and systems applied as regards charges for these services and the way such charges are collected, one must consult the municipal regulations – known as tax ordinances. The actual fees, if any, to be charged for fire-fighting services are also set by city ordinance. Some towns, such as Valencia and Gijón, charge for these services, while others, among them Zaragoza and Madrid, do not.

The Barcelona City Council's fire department delivers fire-fighting, rescue and other services within the city limits. In 1995, the fire department budget totalled 3 584 million pesetas, 155 million of which were investments. A total of 780 fire-fighters were employed in either general services or fire prevention units and assigned to stations throughout the city. In 1995, only 22 per cent of fire department operations involved fire-fighting. Rescue operations accounted for 31 per cent and 47 per cent involved technical

assistance of some kind (the most frequent were repairs of façades in poor condition and preventive inspections).

THE BARCELONA CITY COUNCIL FIRE-FIGHTING FEE

Justification and legal grounds

Charging for fire department services is relatively recent in Barcelona. The Barcelona City Council introduced fees for these services approximately 14 years ago.

It was decided to charge for fire-fighting services in an attempt to penalise those persons who, due to negligence or failure to comply with municipal ordinances, made such services necessary, for example due to failure to maintain building façades, accidental spillage of dangerous substances on public thoroughfares, floods caused by drains in poor conditions, etc. Charging for fire department services was intended to serve as a lesson rather than to collect funds. Fees currently account for only 2 per cent of the total fire department budget.

The City Council has solid legal and constitutional grounds for charging for its fire-fighting services. Referring to the organisation of the Spanish territory, Chapter 8 of the Constitution guarantees the autonomy of local government political, legal and fiscal systems. Fiscal autonomy is developed in the *State Laws on Local Governments and Local Revenue Authorities*, which establish that local governments are empowered to legislate local taxes, which are levied through tax ordinances and updated yearly at the same time the local budget is approved. The Law on Local Revenue Authorities stipulates that local governments are entitled to charge for providing certain public services.

Before studying charges for fire department services, we must first analyse the legal form these charges take. This is the fee, or *tasas*, system.

The fee system

Nature of fees

In accordance with Article 2 of the *Law on Local Revenue Authorities*, local governments are funded from the following sources:

- revenue from their assets and other privately owned property;
- their own taxes, classified as fees (*tasas*), special fees (*contribuciones*) and standard taxes (*impuestos*), and their share of surcharges for autonomous community taxes;
- their allocated shares of taxes paid to the State and their particular Autonomous Community;
- public grants;
- revenue from public prices;
- revenue resulting from loan operations;
- fines and penalties, within their jurisdiction;
- other services rendered under the terms of public law;

Fees (*tasas*) are thus considered to be the local government's own taxes as are its standard taxes, and special fees. It is important to distinguish between fees and other locally levied taxes and to differentiate these taxes from other non-tax-related sources of revenue such as public prices.

Standard taxes (*impuestos*) do not generally require any form of administrative service or activity. Among them are taxes on real property located within the city limits, taxes entitling companies or individuals to engage in business, artistic or professional activities, and motor vehicle taxes. Moreover, city councils are entitled to levy taxes when urban property values increase.

Special fees (*contribuciones especiales*) are charged when a private party earns a profit on an asset, or when the value of an asset is increased as the result of public works undertaken by local governments or the establishment of, or an increase in, local public services. An example would be urban development that increases the value of adjacent properties.

Fees (*tasas*) are charged on public services and municipal administration activities that refer to, affect, or benefit a private party when, by their very nature or due to legal requirements, these services or activities cannot be delivered or performed by the private sector and on condition that demand for these services or activities is not voluntary.

The foregoing definition distinguishes between fees and another form of non-tax-related municipal revenue known as public prices, which are charged for providing municipal services or performing municipal administrative actions that benefit a private party, request or receipt of which is not compulsory, and/or which could be provided or performed by the private sector.

Public prices are likewise charged for private or special use of municipal property. Collecting non-tax revenues in the form of public prices further differs from the fee system in that it is a more dynamic source of municipal financing and one that can be more readily adapted to actual economic circumstances.

As we will see somewhat later on, fees are charged for certain fire department operations. However, fire department services also bring in revenue in the form of public prices and special fees, both of which account for a larger share of the fire department budget than standard fees.

Conditions for introducing fees

To sum up: the fee system is applied to services or administrative actions which the municipality is obliged to provide and which benefit the individual taxpayer. Fees are charged whenever a private party has directly or indirectly obliged the local authorities to provide a service or undertake an action in order to ensure safety, public health, public supply, urban order or for any other reason. This means that fees are not charged on municipal public services or actions which imply a benefit for the community as a whole, for example, public lighting and sanitation services or services intended to maintain general public order.

The *Law on Local Revenue Authorities* must reflect the constitutional clause that states that the taxpayers' economic capacity shall be taken into consideration when determining the amount of fees to be charged and, moreover, sets a ceiling on fees. Fees shall never exceed the real or foreseeable cost of the service or action provided or performed, and the estimated total amount of revenue receivable from fees shall never exceed the total cost of the service or action provided or performed.

The total cost shall include direct and indirect costs of the entire service, including financing charges, amortisation and depreciation and general charges not subject to special fees. Agreements to charge fees in order to totally or partially finance services shall be adopted on the basis of technical and economic reports that demonstrate the foreseeable amount of the costs to be covered.

The amount of the fee shall be stipulated by the tax ordinance regulating the specific fees to be charged and may consist of the amount resulting from applying a percentage-based fee, a flat rate or the amount resulting from applying a combination of the two.

Charges for fire department services

Taxable services and exemptions

Local governments regulate their own taxes through fiscal ordinances, which must be approved in a plenary session of the city council. Tax ordinances shall provide information on the amounts of standard taxes, special fees and percentage-based rates and shall define and describe the taxable service, state who shall be liable for payment and shall contain full information on the collection procedure.

Tax ordinance No. 3.2., approved in the Barcelona City Council's plenary session of 22 December 1995 and in effect since 1 January 1996, established the fees payable for fire department services.

Under the terms of Article 2 of the Ordinance, fees shall be charged for the following services:

- fire-fighting or rescue, except in cases of exemption;
- animal rescue;
- opening doors or other accesses blocked due to negligence or when there is no risk to the people or goods blocked;
- cleaning public thoroughfares following accidental spills of fuel, oil, dangerous liquids or similar products;
- actions undertaken on the exterior or in the interior of buildings (repair of façades, signs, alarms, etc.) when action is necessary due to deficient construction or maintenance;
- floods caused by obstructed drains, accumulation of dirt or similar reasons on condition that there is evidence of negligence in the maintenance of gas or water lines installed on public thoroughfares;
- actions undertaken as the result of faulty transformers, electrical, gas or water lines installed on public thoroughfares;
- accident prevention reinforcements;
- provision of tangible services for private use or for privately organised events;
- removing vehicles from public thoroughfares, except in cases of exemption;
- telephone connections with the fire department's communications center.

In accordance with the terms of Article 5 of the Ordinance, the following services are exempt from charges:

- services required due to fire, regardless of its source or size, unless there is evidence that the victim or a third party caused the fire either deliberately or due to negligence and providing that the person(s) responsible can be identified;
- rescue or assistance provided to people in dangerous situations;
- actions caused by climatic conditions or other Acts of God;
- services requested by forces and agents of other public administrations due to shortage of appropriate means.

Liability for payment

All persons or legal entities who benefit from a service shall be required to pay the fee charged. When several in number, they shall pay a fee proportionate to the means employed and the benefit obtained by each one of them, or in equal parts should it be impossible to determine the proportionate fee. In the event the risk is insured, the insurance company shall be liable for payment of the fee.

Amount payable

The Ordinance establishes two grounds for determining the amount of fees: the amount of personnel or equipment used in the service and the time invested in providing the service.

The fee to be paid shall be the figure resulting from applying the prices listed in the Ordinance.

The Ordinance sets a maximum rate of 11 200 pesetas for all non-emergency services voluntarily requested so long as they do not involve human rescue operations, do not take more than one hour and do not involve the use of certain materials listed in the Ordinance.

For operations lasting longer than one hour, a fixed rate is charged per hour or fraction thereof for the personnel used in the operation. When the use of vehicles is required the rate varies according to

the type of vehicle (standard or special fire engines, cranes, tow trucks, etc.) and fixed rates are charged for their use per hour or fraction thereof. The same applies to other types of material (electrically operated pumps, protective netting, etc.): the rate varies according to the type of material used and a fixed rate is charged for every hour of use or fraction thereof.

EFFECTIVENESS OF USER CHARGING

Negligence as a condition for charging fees

The Barcelona City Council began charging for its fire department services in an attempt to educate the public. In fact, fees are charged for only 10 per cent of the fire department services delivered and account for only 2 per cent of the fire department budget. The aim was to increase public awareness of the need to properly maintain facilities, equipment and privately owned buildings.

Fees for fire department services are charged only when there is evidence of negligence on the part of the person benefiting from fire department assistance: accidents in which inflammable substances are spilled on public thoroughfares, failure to adequately maintain buildings or water and gas installations.

The difficulty in determining when negligence is involved could be expected to pose an additional problem in collecting these fees. However, it is not so difficult to identify cases of negligence inasmuch as the Ordinance clearly specifies what they are. The decision as to whether negligence exists is normally the responsibility of the fire department duty officer.

LIABILITY FOR PAYMENT

Of all the services for which fees are charged, the most frequently required are those related to buildings in poor condition (removal of parts of the facade which threaten to break loose), poorly maintained gas and water installations and breakdowns in alarm systems.

The users of these services are varied and may be either persons or legal entities (in many cases fees are charged to the owners of all apartments or offices in a building, or to the property managers because the façade is jointly owned by all the tenants). In the beginning, bills were never sent to persons but this practice has long since ceased.

People react in a variety of ways when expected to pay for fire department services. Usually they are not even aware that the service is not free. Once they have got over their initial surprise at receiving a bill, they often object, maintaining that these services should be covered by municipal taxes.

Effectiveness

Twenty to thirty per cent of the amount billed for fire department services is actually collected, and mostly without protest. People who object to paying their bills generally try to delay until the statute of limitations runs out. If the system is to be an effective means of educating the public, it should be far stricter. Bank accounts should ultimately be embargoed just as they are for repeated failure to pay traffic fines.

Moreover, the number of times the fire department is called out on chargeable services remains more or less the same year after year. This, together with widespread unawareness of the fact that fees are ever charged, leads us to the conclusion that the system is not a very effective way of educating the public. The amounts actually collected are so small that one wonders if they even cover the administrative costs involved.

Improving the collection system

In 1994, the City Council embarked on a project designed to increase the percentage of fire department bills actually collected. The objectives were: cut down collection time, ensure that services were charged for in accordance with the terms of the Ordinance and reduce the number of protests.

The recommendations made referred only to the part of the collection procedure for which the fire department is responsible. This, in turn, consists of three parts: collecting information about the service provided; deciding whether a fee should be charged and, if so, how much; and handling the administrative process up to the time a bill is sent to the City Council's Revenue Office. The Revenue Office then takes over and there is no effective follow-up on the part of the Fire Department, which hears no more about the matter unless the user fails to pay and files an appeal. In this case, the bill is reviewed and if any error is discovered the case is dismissed. Otherwise, the bill is again sent to the Revenue Office, which will take legal steps to collect the amount owed.

Improvements in the collection procedure involved eliminating repetition in the information collecting-stage, redesigning printed forms for easier use and providing special training for personnel responsible for information gathering. In the decision-making phase, criteria for applying the Ordinance were unified and the technical reports on services provided were subjected to quality control. In the administrative phase, tasks were simplified, processing times reduced and the number of purely administrative billing errors was also reduced.

One major improvement involved setting a single base fee. Regardless of the type of fire department service provided, the base fee charged is 11 200 pesetas so long as the service lasts less than one hour and does not involve the use of certain materials. Setting a flat rate was aimed at improving and rationalising the decision-making process.

Improvements in information collection got underway when the printed forms were simplified. Once the fire department is computerised, the forms will automatically include information about the number of fire-fighters, the material and the time used to deliver the service, and only the information about the persons responsible for and/or affected by the service will have to be provided individually.

Plans were also made to increase the fees, bringing them more in line with the real value of the services provided. In some cases this would have meant increasing fees by 150 per cent. Although this steep increase would affect only a limited number of services a year, the proposal met with fierce political opposition and lack of consensus kept it from being approved by the City Council.

These efforts have simplified the procedure and cut down processing times. Whereas processing previously took 3 to 4 months, it now takes 1 to 1.5 months. Administrative errors have also been significantly reduced.

Nevertheless, there has been no substantial change in Revenue Department operations, on which actual collection of fees is contingent. Indeed, despite administrative improvements, the Revenue Department has not managed to increase the number of bills actually collected.

OTHER FIRE DEPARTMENT REVENUES

In addition to charging for fire department services required due to negligence, the Barcelona City Council has taken other steps to increase revenue and obtain investment funds.

The Barcelona port authority agreement

Although the Barcelona Port Authority, a public agency answering to the Spanish government's Ministry of Public Works, was responsible for providing certain fire prevention and extinction services required by law, it had not done so until the City Council offered to detail a special brigade to serve

the port. In exchange, the Port Authority would provide the necessary facilities and equipment. After two years of negotiations, an agreement was reached. Once the vehicles and other equipment purchased by the Port Authority have fully depreciated, they become city property and can be used as the fire department sees fit. Revenue from services provided to the Port Authority amount to 180 million pesetas per year.

Charges for specialized services

While the fire department charges fees for certain services, public prices are charged for others. As explained earlier, public prices are the charges on non-compulsory public activities and services that could be provided by the private sector. Public prices are charged for fire department courses that train corporate personnel for emergency action. Public prices are also charged for services provided by the Fire Prevention Laboratory, which tests and approves fire-resistant industrial material. The amount raised by public prices in 1996 was 18 million pesetas.

Special fees paid by insurance companies

Yet another source of fire department revenue are the special fees insurance companies pay annually to the Barcelona City Council as beneficiaries of new or improved public services or administrative actions. This special fee is compatible with the standard fee system and is governed by the May 1994 law on fire-fighting services in Catalonia. This law stipulates that insurance policies covering fire, industrial risk, freight and/or passenger transport risk on goods or activities located or operating in the territory of Catalonia are subject to this special tax.

The amount to be paid by the insurance companies is determined in nation-wide negotiations with the Spanish Association of Insurance Companies and is a percentage of the value of the policies issued by each company for the above purposes. The percentage contributed this year is 5 per cent, which translated to about 300 million pesetas in revenue for the Barcelona City Council. Verifying the accuracy of the amount agreed upon is a complex procedure that is handled by the Revenue Office. Funds are paid out in accordance with investments made by the fire department, which are, in turn, difficult for the insurance companies to verify.

FUTURE PROSPECTS

The Barcelona City Council is currently planning a sweeping reform of its fire-fighting services. The recently approved Fire Department Master Plan emphasises fire prevention and sets maximum time limits for going into action when the department's services are required. These two features earned the Master Plan this year's safety prize, awarded by one of Spain's leading trade publications.

Making fire prevention its principal objective will involve making radical changes in fire department structure, functions and organizational culture. Even public perception of fire department services will have to change. As the Barcelona Fire Chief explained, the public must be educated to stop associating fire-fighters with fires and start getting used to the idea of fire-fighters as technical inspectors and fire prevention agents. This kind of education will no doubt prove more effective than attempting to educate the public by charging for services rendered due to negligence. The aim is to make the entire population safety-conscious, starting with the youngest members of society, over 10 000 of whom tour the city's fire stations every year.

Focusing on fire prevention also opens new possibilities in terms of revenue.

Safety checks could be used to rate the safety level of public establishments (somewhat as stars are awarded to hotels and restaurants). The beneficiaries would pay the costs involved. Other prevention measures could include making recommendations designed to promote better use of gas and electricity

services. Inasmuch as this would benefit the utility companies, it would be not only logical but legal for utility companies to be charged a special fee such as the one currently charged insurance companies.

To conclude, shifting the emphasis from fire-fighting to fire prevention would lead not only to a radical change in the traditional concept of the fire department but would also provide new financing opportunities. In this context, billing for services provided, the difficulties of which have been discussed in this paper, would account for no more than a fraction of Fire Department revenues.

NOTES

1. Spain is organised into 17 decentralised autonomous communities, whose institutional structure is equivalent to that of a federated state. Each autonomous community has a Parliament with legislative powers. The Parliaments are elected by popular vote and in turn elect a president, who then appoints the remaining Cabinet members.
2. Spain has 52 provinces. All the towns in each province are grouped together in a *Diputación Provincial*, or provincial government entity.
3. Barcelona is the capital of the autonomous community of Catalonia.

USER CHARGING AT STATISTICS SWEDEN

by

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THE SWEDISH PUBLIC SECTOR

Certain features characterising the public sector in Sweden need to be pointed out in order to make this case study easier to understand.

The public sector is divided into:

- municipalities and regional councils; and
- the State, consisting of Parliament and government (Cabinet, ministries, and agencies).

Cabinet decisions are made collectively by the ministers. The ministries are relatively small and their task is to act as policymakers, preparing the decisions of the Cabinet.

Under the ministries there are around 300 independent agencies, which are responsible for carrying out government activities in accordance with laws, ordinances and other decisions by the Cabinet.

One of these agencies, **Statistics Sweden** (SCB), is responsible for providing statistics for some sectors of society, namely central economic statistics, the national accounts, and statistics relating to the population, labour market, prices, and living conditions. While other agencies provide statistics relating to health and medical care, social welfare, energy, agriculture, etc., SCB is nevertheless involved in many ways in their production. SCB is also responsible for the control and co-ordination of all official statistics. Through its central databases, SCB offers users access to many sections of official statistics.

USER CHARGING FOR PUBLIC SERVICES

Political considerations are key to all decisions to introduce user charging for public services. The constitutional basis of user charging vs. taxation in Sweden is that user charges are:

- directly related to the services rendered; and
- do not exceed of the full cost of those services.

There are no such requirements or restrictions on taxation.

The most common objectives for the introduction of user charges in Sweden are:

- when user charging is seen as an alternative source of financing to appropriations;
- when it is considered more reasonable that the users pay rather than the taxpayers;
- when user charging is used as a means to increase, or create, cost awareness; and
- when user charging is a better way of allocating resources than appropriations.

SCB is financed in various ways: It receives appropriations, which are used for the production of statistics for which SCB is responsible. But over 50 per cent of the activities of SCB are now based on contract work, and in this area it competes with market research companies, data analysis and processing

companies, consultants, and university research departments. Before, SCB received special appropriations to provide statistics for certain sectors of society where other agencies now have that responsibility. Today, these agencies receive the appropriations directly, and either produce the statistics themselves or outsource their production. In most cases, the SCB receives the contract to produce them. The main motive for the introduction of this kind of user charging was to bring statistics more in line with what the users need.

GOVERNMENT POLICY ON USER CHARGING

According to the Swedish Constitution, the State Budget Act, and the Fees Ordinance (1992), agencies can only charge user fees for products or services if it is permitted by law, or by an ordinance. Agencies also need an authorisation to determine the size of the fee. If it has been decided that users are to be charged, then full cost recovery applies as a general pricing policy. Departures from this principle can be motivated if the objective of the activity would be adversely affected by full cost recovery.

It is not easy, however, to apply the principle of full cost recovery to information services. The Swedish citizen's constitutional right of access and various mandates to individual public organisations for providing particular information services free of charge form an important part of the policy framework.

When the information is supplied on paper, a special price list applies according to the Fees Ordinance, which nearly all agencies must follow. Agencies are not allowed to charge extra for information that they can supply in a routine fashion. All agencies must also decide the extent of their free services. For example, it is becoming increasingly common for agencies to supply information free *via* the Internet.

If user charging is decided upon, one principle often applied for the pricing of information services is that the charge should cover the full cost of executing the order. This principle implies that no portion of the cost of initially collecting and processing the information should be recovered. Nor should the charge normally cover costs associated with preparing information for the agency's internal use.

Every government agency is required to consult yearly with the Swedish National Audit Office concerning the fees they charge for their products and services. This is a way of ensuring that uniform and relevant pricing methods are applied throughout the government sector, and that the fees, in the long run, do not exceed the full cost of the service in question.

WHICH COSTS TO BE COVERED BY THE CHARGES?

The rule is that the charges shall cover both direct and indirect costs as incurred. Direct costs include material and salaries of personnel necessary to complete the order. Indirect costs should include a justifiable part of the overheads of the agency, such as accounting and personnel functions, as well as the cost of office premises and equipment necessary to carry out the work.

Prices may of course vary according to differences in the processing of orders. It is not acceptable, however, to subsidise one category of customer by over-charging others for a certain product as long as the costs are the same.

When deciding on a principle for the charging of services, it is important to define the terms used since they can be interpreted in many different ways. It should also be understood that the objective of full cost recovery is a long-term goal, covering a period of more than one year. It is not realistic to decide on charges which give neither a surplus nor a deficit during any particular year.

STATISTICS SWEDEN (SCB)

Background

During the 1960s the official statistics and databases of the Kingdom of Sweden were centralised at Statistics Sweden (SCB), which was also given the responsibility for co-ordination and quality-control of the data. As a complement to their normal, appropriation-based activities, SCB also carried out contract work on a fee basis. In 1992 a new law decentralised the responsibility for statistics in a number of areas. But even before the new law came into force the responsibility for statistics was delegated to a number of other agencies. However, SCB continued to supply statistics to several of them, such as the Financial Supervisory Authority – but on a contract basis.

Before 1992, SCB discussed the contents of the statistics with the ministries and the user agencies individually. Only rarely did any direct discussions take place between the ministries and the user agencies.

Other government agencies account for about 70 per cent of SCB's turnover from commissioned work. The remaining 30 per cent is divided among municipalities, regional councils and the private sector. To some extent, SCB is also commissioned to process value-added information for, for example, banks and newspapers.

User financed activities

The government agencies which are now responsible for supplying official statistics must decide who should provide the statistics and databases they have to fund. The main reason for introducing user charging was to improve the match between what the user needed, and therefore was willing to pay for, and the supplied data. The objective was to provide the user with the right facts at a reasonable cost with adequate quality and easy access.

No longer does SCB decide what the statistical databases should contain; rather, this is decided by the agencies in control (the customers), together with the relevant ministries. Proposals for changes can be initiated by the responsible agencies.

SCB does, however, have an overall supervisory function and is responsible for standards, co-ordination and quality control in order to ensure that a unified system of statistics is supplied by all agencies. To ensure that they do conform to these standards, SCB issues a regular newsletter discussing how statistical facts should be compared, methods of classification and coding, etc. This means that SCB has a triple role:

- a) it is responsible for providing statistics for certain sectors of society;
- b) it is a sub-contractor in competition with other suppliers of statistics; and
- c) it is a quality control agent.

Decentralised production of statistics, as seen by the customers

An agency that is responsible for the supply of statistics decides itself who should provide it, what it should contain, what quality the final product should have, how it should be accessible, etc. as well as what other services should be provided if the work is outsourced. An alternative is for the agency to perform this work fully or partially in-house.

The statistics can be published in a number of ways. The executor, in this case SCB, can assume total responsibility for the publication and dissemination of the data, conduct any special consulting work which is required, supply user support, etc. – all according to the conditions laid down in the contract with the customer. The customer, *i.e.* the agency responsible for the statistics, decides whether the information should be free, not available to other users, etc. As an example, SCB treats the statistics ordered

by the National Board of Health and Welfare as collective goods to which the public should have access free of charge.

Decentralised production of statistics, as seen by the producer (SCB).

SCB is only one of several competitors in the field of supplying statistics to government agencies. For its other activities, appropriation-or contract-based, SCB needs access to many different types of statistics and databases in order to treat complex relations.

PRINCIPLES OF CHARGING

Appropriation-financed products are available free of charge to everyone as long as they do not contain confidential information.

It is up to the customer of contract-financed products to decide whether the statistics should be supplied to other users free of charge or not. SCB has a contract relation that the customer which specifies price, performance, quality and methods. If somebody other than SCB supplies the statistics, this supplier can use another method than the one proposed by SCB. SCB may then have to demonstrate to the customer agency that their method will result in higher quality, but possibly at a higher price. This way of working has resulted in a general quality improvement in this area.

Full cost recovery is applied as a principle. The fees are computed in such a way that the charges cover all costs incurred by the contract. However, the fees should not contribute to the recovery of costs of activities that are financed by appropriations.

The formal consultation with the National Audit Office gives legitimacy to the pricing. This is advantageous from the standpoint of fair competition and contributes improving the quality of pricing. SCB therefore considers this consultation to be an important element of their operation.

Most contract work is supplied on a fixed-price basis (70 per cent of all contracts). Work on a running account is calculated using a fixed hourly rate that is the same for all activities, *i.e.* the hourly cost is the same for both contract-based and appropriation-based work. SCB also charges all customers the same price for a certain product. Since the price is based on an estimated sales volume, a surplus may be generated if the demand is higher than expected. Such a surplus may be used for product development in the department, but the fees should be adapted over the long term if they consistently generate surpluses or deficits.

Units within SCB performing contract work have to pay the same price as external customers for access to databases and statistics. This is one way of avoiding the suspicion of unfair pricing.

There exists a special “research rate”, which is lower than the standard one, but it is rarely used. Research students tend to include the cost of statistics in their requests for research grants.

There also exists a possibility of using a differentiated pricing system, but this is not used to any major extent. Examples of possibilities for reducing the charges are to use interviewers when they have free time, or to run computer jobs at night at reduced rates. The opposite can also be used to differentiate prices, *i.e.* to run computer jobs with a very high priority and consequently higher cost when so required.

The contract activity of SCB requires considerable accounting support. SCB sends out about 45 000 invoices per year, including 35 000 for publications, for a total value of about SEK 12 million. The remaining 10 000 invoices account for SEK 340 million.

CONCLUSIONS – IMPACT OF USER CHARGING

When changing from a “free”, tax-financed system of supplying goods or services to a system whereby the service is charged to the user, it is very important to disseminate enough information about this change and to make sure that the information does reach the future customers and users.

SCB has an overall supervisory function with regard to standards and classification used in the statistics requested by government agencies. This gives SCB the dual role of being both in competition with others and the quality control agent, which can raise doubts as to its impartiality. In order to solve that dilemma, an “independent” group inside SCB has been given the responsibility of scrutinising the quality of all public statistics. Any criticism will be presented to the SCB Directorate for possible action. The Directorate also presents an annual report to the government on the quality, etc., of the official statistics of Sweden.

A disadvantage of the new system is that SCB can no longer influence the quality of the statistics for the sectors of society where the responsibility has been given to other agencies. SCB also maintains that it is more difficult than before for secondary users to influence the contents, which are almost completely decided by the primary users. Another problem is that it has become more difficult for them to produce complex statistical relations when the responsibility of the data is external to SCB.

At present, SCB still has overriding responsibility for all public statistics but no longer decides what the statistics should contain since this is determined by the customers – the government agencies and ministries. Another effect as seen from SCB’s point of view is that existing competence may be lost if the controlling agency decides to produce the statistics elsewhere.

An advantage of decentralising the responsibility for providing statistics to the government agencies that are the primary users is that the ministries can better control and administer the allocation of resources. It also creates a stronger link between cost and effect when the primary user – who pays for it – is responsible for providing the necessary statistics.

By charging for the service, the provider has had to become much more sensitive to the real needs of the users, and also finds it easier to set priorities. The product can be specified in a catalogue of variables with information about the methods that have been used, sample sizes, overall quality, etc.

Due to the introduction of user charging, the relations between SCB and the users/customers have become more business-like. Discussions are carried out about price, performance, quality and methods. If another supplier is preferred the discussions, of course, are the same. As a result, the overall performance of statistics in Sweden has improved.

CHARGING FOR MAPPING SERVICES: THE UK ORDNANCE SURVEY

By

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INTRODUCTION

This paper describes how and why Ordnance Survey, a department of the United Kingdom government, charges its customers for goods and services. Also covered are constraints on charging imposed by government and internal effects caused by charging that may not be immediately apparent to those government departments or agencies that do not charge. As described in more detail later, Ordnance Survey is responsible for national mapping and the maintenance and provision of geographical information in Great Britain. It is therefore distinct from most other government bodies in that it is not primarily concerned with performing services that are required by the generality of the population on a day-to-day basis.

ORDNANCE SURVEY

Ordnance Survey was established in 1791 with a remit to create accurate mapping of the United Kingdom for military purposes. The first maps were of the south-east of England, considered to be the most likely area where an invader would have to be fought. From this, activity expanded to cover the entire country, first at the scale specified for military purposes of 1:63360 and subsequently at a variety of larger and smaller scales. Whilst originally for strictly military purposes, it very soon became apparent that mapping was also of great value for civilian purposes. Sales of maps to the public began in the early 19th century once the threat of invasion had receded and military secrecy was no longer a major consideration. At this time, revenues from map sales were surrendered to government. The costs of operating Ordnance Survey were met from money voted by Parliament from general taxation.

MOTIVATION AND RATIONALE FOR CHARGING

The reason for introducing charges for information was that users should pay and that the general public should not pay through general taxation for activities which were primarily of interest or benefit to specific organisations or individuals. During the last century it was recognised that the sale of maps was a sale of goods and therefore that the revenues should be retained by Ordnance Survey as a contribution to costs. Previously, all revenues had been surrendered to the Exchequer and costs were entirely funded by central government. By this time, Ordnance Survey had been in existence for over 100 years and was recognised as being the definitive supplier of accurate mapping for both military and civilian use.

BRITISH GOVERNMENT ORGANISATION AND ORDNANCE SURVEY

The British central government system consists of some 20 major departments headed by ministers with responsibility for defined areas of administration. Examples are Departments of Health, Education and Employment, Transport, Defence, Environment and Social Security. Many of the services to the general public previously provided by Departments have now been devolved to over 100 Executive Agencies, each responsible for a discrete area of service delivery. Departments remain primarily responsible for policy. Departments are rarely concerned with selling goods or services, but a number of agencies are.

Ordnance Survey is in an unusual position of being both a separate Department and an Executive Agency. Accountability to Parliament is through ministers in the Department of the Environment. Other agencies concerned with selling goods or services include The Royal Mint, responsible for the manufacture of UK and foreign coinage, the Central Office of Information responsible for dissemination of government information to the public, the Driver and Vehicle Licensing Agency, the Passport Agency responsible for issuing passports, various organisations concerned with research, health and safety, and environmental protection.

CHARGING AT ORDNANCE SURVEY

In 1897, Ordnance Survey was granted the right to keep the proceeds of map sales to offset costs although the maximum amount of gross expenditure was and still is strictly limited.

Currently, Ordnance Survey is charging for almost all its products and services. Around 90 per cent of costs are covered through commercial revenues, the balance coming from funds voted by Parliament. Commercial revenues are principally derived from:

- a) sales of printed maps, atlases and guide books;
- b) sales of geographical information in digital form;
- c) copyright licence fees for the copying and re-use of maps and digital data;
- d) sales of services both domestically and abroad. Services include surveying, customised data, assistance to the United Kingdom Overseas Development programme, infrastructure development in other countries, provision of data required under EU policies (mainly concerning agriculture).

GOVERNMENT POLICY ON USER CHARGING

Government's aim in charging for services is to ensure that resources are allocated efficiently. Charges are normally set to recover the full cost of the service. The recovery of the full cost of a service is in general a matter of policy and not a matter of law. The categories of service covered by government policy in this area are:

- a) *Statutory Service*, where there is a provision in statute to recover a fee for a service and a Minister, Department, Agency, Non Departmental Public Body or National Health Service body is responsible for setting or approving a fee.
- b) *Inter-Departmental Service*, where a government Department, Agency, Non Departmental Public Body or National Health Service body provides a discretionary service to another government Department, Agency, Non Departmental Public Body or National Health Service body. (Services provided within a Department, whether or not one or more Agencies are involved, are intra not inter-Departmental).

- c) *Intra-Departmental Service*, where one part of a government Department provides a discretionary service to another part of the same Department. (Either the provider or the recipient of the service, or both, may be an Agency or part of an Agency).
- d) *Commercial Service*, where, in the absence of a specific fee setting power, a government Department, Agency, Non Departmental Public Body or National Health Service body sells discretionary services to the wider public sector or to the private sector.

Charges made by Ordnance Survey fall mainly into categories (b) and (d).

Interdepartmental services generally take the form of agreed charges for specific work to be done and are normally charged to recover full cost overall from customers. Copyright fees are charged where applicable at standard rates. Charges to other Departments for copyright started in 1973; previously no charges were made, as was also the case for the provision of services. Until 1968, paper maps were supplied to other Departments free of charge. When charging started it soon became apparent that it was anomalous to charge for maps but not for copying.

Commercial services are sold to other public sector bodies, in particular local authorities, and to the private sector. Government policy is that services should, in general, be provided by the private sector rather than the public sector, with the public sector buying in services as necessary. The case of Ordnance Survey differs from that of most government bodies. Its basic function is to provide national mapping cover for a wide variety of purposes, some of that are provided in the national interest. This activity produces outputs which are of commercial value and are in many cases unique. The private sector competes in areas where commercial value is greatest and in some cases licenses data from Ordnance Survey in order to do so.

GOVERNMENT RULES ON PRICING AND PROFITS APPLY TO ORDNANCE SURVEY

The fundamental rule is that pricing should be based on full cost. This has important implications. First and foremost a system of accounting and product costing that produces costs by individual product or product group must be in place. The system must be reliable, auditable and must avoid cross subsidisation. This is extremely important in ensuring that when there is competition it is fair and taxpayers' money is not being used to enable a public body to undercut private sector competitors.

To meet these requirements, Ordnance Survey has an accounting system that copes with both government accounting requirements, which are mainly concerned with cash movements, and commercial accounting requirements. The latter includes the concept of accruals-based accounts, asset valuation, depreciation charges, etc., as in any private sector company. The entire costs of running Ordnance Survey are charged to products. Products are grouped by business segment and results are published showing cost recovery (*i.e.* profit or loss) by segment. Two segments are reported. These are defined in the published annual report as "core" and "commercial".

Core

Ordnance Survey is responsible for providing and marketing topographic data and mapping at scales of 1:10000 and larger, depending on the type of areas, for the whole of Great Britain, including the geodetic and topographical surveys and associated work necessary for its completion. Ordnance Survey is also responsible for provision and marketing of comprehensive mapping at scales of 1:25000 and 1:50000. Mapping at these scales is regarded as a core activity because of its importance to the nation.

Commercial

This activity principally includes the production and marketing of mapping and survey information at scales smaller than 1:50000, specialist larger-scale mapping on a selective basis and educational products and services. Ordnance Survey has produced a wide range of co-publications, which include text and photographs in many cases as well as maps, and Geographic Information Systems (GIS) contract work for the private and public sectors in Great Britain and overseas.

Revenues are identifiable by product or services and hence by segment. Costs identifiable by product or product group are charged to product. Indirect costs are charged to products or product groups based on allocation keys consistently applied from year to year. The attribution of costs and revenues to the two segments is subject to independent audit as part of the overall audit of the accounts.

PRICING OF PRODUCTS AND SERVICES

Four major factors influence the pricing of commercial services and products. These are:

- a) cost;
- b) competition;
- c) ability or willingness of the customer to pay;
- d) government and legal constraints, including Articles 85 and 86 of the Treaty of Rome.

In pricing services, interdepartmental services are generally charged at a price agreed with the customer that is intended to recover full cost overall. It is not government policy for Departments or Agencies to make profits or losses from interdepartmental services. For commercial services full cost recovery is the minimum requirement. The government's guidelines on profitability for commercial services are outlined below.

The appropriate return on capital for commercial services varies with a number of factors, including any advantages which bodies may have vis-à-vis private sector competitors. The normal arrangements are:

- a) where a body provides a low-risk commercial service, perhaps in support of an activity required by statute, and there is no competition from the private sector, it is appropriate for the body to achieve an average real return on capital of 6 per cent;
- b) for low-risk commercial activities typical of most public sector output, and where there may be competition from the private sector, commercial sales to wider markets should achieve an average real return of at least 8 per cent;
- c) where there is competition and the market will bear a higher return, or if the activity is of medium to high risk and the private sector faces a significantly higher cost of capital, a return of more than 8 per cent may be justified.

In practice, costs and revenues do not march in step. Costs of gathering data and turning it into saleable products are almost always incurred well in advance of the resulting revenues. Ordnance Survey policy is to expense such costs as incurred but to recognise revenue only as it is earned. Full in-year cost recovery is therefore rendered impossible by the very nature of the business. Another significantly unusual factor is that once data is available, it can be sold many times over without incurring significant extra cost, or if copied by customers who pay licence fees, no cost at all. Thus prices have to be set at levels which anticipate sales volumes. This of course applies to products rather than services, although the dividing line between the two is often blurred. Although there is at present little competition in the supply of digital geographical data there is pressure from customers to reduce prices. This appears to arise mainly from the perception that as the price of computers and software continue to fall so should the price of data. While it is true that processing costs (mainly hardware costs) are falling, the major cost of maintaining an up-to-date database, collection of the data itself, remains by far the greater proportion

of total costs. Hence recovery of full cost means that data prices will only fall if there is rapid market growth as in the case of computer software.

In practice, commercial services sold by Ordnance Survey tend to be specialised tasks subject to competitive bidding, especially in overseas markets. Some services also involve the supply of geographic data and the tailoring of that data to meet the customer's requirements. Prices quoted are based on fully overheaded cost. In this respect, Ordnance Survey acts in the same way as its private sector competitors, or as is frequently the case with overseas work, public sector mapping agencies from other countries.

ABILITY AND WILLINGNESS OF CUSTOMERS TO PAY

In most cases customers are both able and willing to pay for the geographical information they need. Major users such as utilities (electricity, gas, water, telecommunication companies) and local authorities have signed service agreements that define the services and data to be supplied and the price to be paid. Maps and data sold to the general public are subject to the deliberations of a number of consultative committees representing some 160 organisations with an interest in Ordnance Survey mapping who are invited to comment on pricing, availability, coverage, currency, level of detail, etc.

Comments or complaints on pricing from the general public or private sector competitors can be and are raised directly with Ordnance Survey or through their members of Parliament. Ordnance Survey monitors customer opinion on all aspects of its products and services, including pricing. Regular, comprehensive, customer satisfaction surveys are conducted and the results are published in the Annual Report. Whilst customers' views on most aspects of Ordnance Survey products and services are very positive, customer comments on pricing are generally unfavourable. Investigation has shown that this is due mainly to the fact that until quite recently there was little government pressure on Ordnance Survey to maximise its cost recovery. Maps were sold at considerably less than full cost. The combined need to recover costs and the need for more revenue to finance the cost of more frequent updating of mapping has resulted in price increases that some customers regard as excessive.

INFORMATION GATHERED AND HELD IN THE PUBLIC INTEREST

While much of the information gathered and made available by Ordnance Survey has wide commercial value, the remit to maintain full national coverage for core products means that information of little commercial value has also to be gathered and maintained in current condition. This includes mapping of rural, moorland and mountain districts where detailed information is only needed if unexpected events occur. Included in this category are natural disasters such as fires, floods or major coastal erosion or events such as air accidents, pursuit of criminals and searches for missing persons. Availability of accurate mapping at short notice is vital for these purposes and the cost of providing it has historically been considered to be covered by the funds voted annually by Parliament. Negotiations are in progress to establish a service agreement which will specify the non-commercial services performed and to reimburse Ordnance Survey for the cost. It is expected that this will be finalised and an agreement put in place in 1998.

SUMMARY AND CONCLUSIONS

As a government department, Ordnance Survey is unusual in that it performs a vital function in maintaining part of the national infrastructure and at the same time produces products that are of great commercial value to public and private organisations and to the general population. The keys to its ability to perform these roles are knowledge of customers needs and knowledge of the costs of meeting those needs. Knowledge of costs, on a commercial basis, including cost of capital and depreciation of

assets, is essential to ensure fair and equitable charging without hidden subsidies or hidden taxation. To a very large extent, these requirements have been met and Ordnance Survey's credibility amongst its customers and competitors is high.

A degree of regulation is required of any government body that produces goods or services for sale to the public, especially where the activity is a part or whole monopoly. Competition is the best regulator but in its absence, partial or complete, there is a danger that regulation in the form of limits or targets on return on capital employed will discourage further efficiency once those targets/limits have been met. Thus other measures to encourage and monitor efficiency must be put in place, as is the case with Ordnance Survey, to ensure that the public and the country as a whole get best value for money from services provided by the public sector.

USER CHARGING AT THE US NUCLEAR REGULATORY COMMISSION

by

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INTRODUCTION

The *Omnibus Budget Reconciliation Act of 1990 (OBRA-90)*, was passed by the United States Congress and signed by the President of the United States on 5 November 1990. One of the purposes of the Act was to increase revenues to the US government. A provision of OBRA-90 requires that the US Nuclear Regulatory Commission (NRC) collect approximately 100 per cent of its new budget authority, less the amount appropriated from the Nuclear Waste Fund (NWF) for fiscal years 1991-1998 through the assessment of fees. The NWF is administered by the US Department of Energy. The NRC took no formal position on the legislation as this was a matter relating to the generation of Federal revenues which is not part of the NRC mission.

FEES ASSESSED BY THE NRC

The NRC assesses two types of fees to recover approximately 100 per cent of its budget authority. First, license and inspection fees established under the authority of the *Independent Offices Appropriation Act of 1952 (IOAA)*, 31 USC. 9701, recover the NRC's costs of providing individually identifiable services to specific applicants and licensees. Second, annual fees established under the authority of OBRA-90 recover generic and other regulatory costs not recovered through fees for services. Fees for services currently recover about 25 per cent of the NRC's budget authority, excluding the high-level-waste (HLW) programme, and annual fees recover the remaining 75 per cent.

The fees are assessed and collected by the NRC; however, they are not retained by NRC but are sent to the US Department of the Treasury. The fees collected do not directly affect the funds available to NRC because the budget available for NRC use is appropriated by Congress at the beginning of each fiscal year.

Neither the fees for services nor annual fees incorporate "peak pricing" in order to distribute demand for the activities more evenly. Depreciation and cost of capital expenses are not part of the annual budget and, therefore, are not considered in the development of either fees for services or annual fees.

Fees for services and annual fees must be established through notice and comment rulemaking. To accomplish this, the NRC publishes annually in the Federal Register its proposed regulations for public comment. After evaluating public comments, the NRC publishes final fee regulations in the Federal Register. The NRC sends a copy of these Federal Register notices to each licensee.

FEES FOR SERVICES

Title V of the IOAA states that “it is the sense of Congress that each service or thing of value provided by an agency to a person, except a person on official business of the United States Government, is to be self-sustaining to the extent possible.” The head of each agency may prescribe regulations establishing the charge for the service or thing of value provided by the agency.

The NRC’s predecessor, the Atomic Energy Commission, adopted its first “fees for services” based on the authority of the IOAA in 1968. This type of fee is assessed to persons who are identifiable recipients of special benefits conferred by specifically identified activities of the NRC. Such special benefits include all services necessary for the issuance of a required permit, license, approval or amendment and all services necessary to assist a recipient in complying with statutory obligations or obligations under the Commission’s regulations. Examples of the services provided by the NRC for which fees are assessed are the review of applications for the issuance of new licenses or renewals, and amendments to licenses as well as inspections of licensed programmes. The fees established by regulation include the direct and indirect costs of providing a specific service.

The NRC assesses two different types of fees for services it provides. “Full cost”, or variable, fees are assessed to reactor and fuel cycle facilities and “flat”, or average, fees are assessed to a majority of the material licensees. The two types of fees for services are explained more in the following three paragraphs.

Full cost (variable) fees

For reactors and fuel cycle facilities, the fee for a specific service rendered is based on the full cost (actual NRC professional staff hours and any contractual costs) expended by the NRC to complete the review or to conduct the inspection. Therefore, these fees result in a variable charge based on the amount of services consumed by the applicant or licensee. To arrive at the unique, variable fee, the professional staff hours expended are multiplied by cost per hour established in the fee regulations to arrive at the unique, variable fee. As a result of using the full cost method, fees for the various reactors and fuel cycle facilities will differ, depending on the NRC costs to process an application or to conduct an inspection.

The NRC has established two professional staff hour rates in the fee regulations. The rate established for Fiscal Year (FY) 1996 is \$128 per hour for the reactor programme and \$120 for the fuel cycle and materials programmes. The hourly rate established for each of the programmes includes a pro-rata share of the overhead and general and administrative costs of the agency. The hourly rate is updated annually based on changes in the budget.

Flat (average) fees

For the more than 6 000 materials, licenses, application and amendment fees are established in the fee regulations for each user category, for example, radiographers (Category 30), well loggers (Category 5A), or gauge users (Category 3P). This flexibility in the materials fee schedule recognises classes or categories of users. However, the fee within a category is uniform for each applicant or licensee in the category. The materials fee schedule does not recognize any differences for geographical locations or for the size of the company. The flat fee for a user category is determined by multiplying the *average* time required to process a new application or amendment in that category by the professional staff hour rate established in the fee regulations. In response to the Chief Financial Officers (CFO) Act of 1990, the NRC reviews, on a biennial basis, these fees and other charges imposed by the agency for its services and revises those charges to reflect the costs incurred in providing the services.

ANNUAL FEES

In addition to the fees assessed under IOAA, the NRC, under OBRA-90, charges an annual fee to recover those generic and other regulatory costs not recovered from fees for services. In the Conference Report accompanying the legislation, the Congress suggested guidelines that NRC should follow in calculating the annual fee to be assessed. The specific guidelines are as follows:

- the annual fees shall be based on the NRC's budget less the amounts collected from fees for service and the funds directly appropriated from the NWF to cover the NRC's high-level-waste programme;
- the annual fees shall, to the maximum extent practicable, have a reasonable relationship to the cost of regulatory services provided by the Commission; and
- the annual fees shall be assessed to those licensees the Commission, in its discretion, determines can fairly, equitably, and practicably contribute to their payment.

The conferees recognised that a substantial portion of the NRC's annual expenses, while not attributable to individual licensees and thus not recoverable under the IOAA, are attributable to classes of licensees. Thus, NRC should allocate generic costs (*e.g.* research and rulemaking) that are attributable to a given class of licensee to that class. The conferees also recognised that certain expenses cannot be attributed either to an individual or to a class of NRC licensees and indicated that the NRC should fairly and equitably recover these expenses from its licensees through the annual charge even though these expenses cannot be attributed to individual licensees or a class of licensees.

The annual fees for each class or subclass of licensees is determined by uniformly allocating the budgeted amount to each licensee in the class or subclass. To distribute the costs and to establish fees that have a reasonable relationship to the costs of providing regulatory services, the NRC first allocates budgeted costs attributable to a class of licensees to that class. Classes include but are not limited to operating power reactors, test and research reactors, fuel facilities, spent fuel storage, uranium recovery, materials, and so forth. Estimated collections from fees for services are then subtracted from the amount allocated to each class. The budget authority remaining, after subtracting the amounts to be recovered from the NWF and estimated collections from fees for services, is recovered from annual fees.

IMPACT OF FEES

The NRC has met the first objective of OBRA-90, that is, collecting approximately 100 per cent of its budget authority through the assessment of fees. For FY 1991-1996, the average amount collected was 98.5 per cent of the budget. Despite this success, NRC annual fees have been highly controversial. In the proposed fee regulations, the NRC has encouraged those who comment to not address the public policy issues of whether the Federal government should fund its activities through user fees rather than assessing taxes on the general population but, instead, to focus on this central question: "Given that user fees will be assessed to NRC licensees, what specific legislative or NRC policy changes are needed to eliminate an unfair burden?" Despite this request, many who commented on the proposed fee schedules have expressed concerns about the public policy objectives, and possible conflicts of interest in implementing 100 per cent fee recovery, in addition to the fairness and equity of the fees.

With respect to the impact of the annual fees on licensees, the number of material licenses decreased from about 9 100 to 6 500 during the first few years of 100 cost per cent recovery implementation. However, not all of the 2 600 terminations resulted in the elimination of an active business. Some licensees and registration holders indicated that they were neither using nor planning to use the license or registration certificate. In some instances, the licensee did not possess any licensed material. In other instances, the licensees elected to consolidate two or three licenses or registration certificates into one license or certificate. No major facility licensees have requested termination of their license to avoid payment of the annual fee.

As a result of the comments received from licensees on the proposed rules implementing OBRA-90 and the Congressional concern about the fees being assessed by the NRC, the Congress, through the Energy Policy Act of 1992, directed the NRC to review its policy for assessment of annual charges, solicit public comment on the need for changes to this policy, and recommend to the Congress any changes needed in existing law to prevent placing an unfair burden on NRC licensees. The report on the fee policy review was provided to Congress on 23 February 1994, and recommended legislation to solve the fairness and equity concerns. These major concerns evolve from the inability of the NRC to meet the principle summarised by one commenter related to the fee policy review; namely, that if the NRC is to be funded through user fees rather than taxes, then “each direct beneficiary of NRC’s activities – not merely its “licensees” – should contribute to an extent commensurate with the benefits it receives.”

This principle cannot be met because not all direct beneficiaries of NRC activities pay fees because of legislative constraints and Commission policy. Moreover, fees are based on the agency’s costs to perform its regulatory responsibilities, rather than on the licensee’s perception of benefits received. This leads some licensees to conclude that the fees for regulatory activities related to them are not commensurate with the benefits they receive. The report to Congress recommended that OBRA-90 be modified to reduce the amount to be recovered from fees by the budgeted amount for these activities (approximately 10 per cent of NRC’s budget). These activities include certain international activities, the NRC fee exemption for non-profit educational institutions, the statutory fee exemption under IOAA for Federal agencies, the NRC fee reduction for small entities, generic decommissioning and reclamation, and the Site Decommissioning Management Plan. Thus, to recover 100 per cent of the budget, these costs must necessarily be assessed to licensees that do not directly benefit from those activities. For this reason, the legislative requirement to collect 100 per cent of the budget authority through fees inherently places what could be considered an unfair burden on licensees. This recommendation was not adopted by Congress.

Since legislation was not enacted by Congress, the Commission adopted, in FY 1995, a policy that allocates the costs (about \$56 million in FY 1995) for the activities related to fairness and equity concerns to all NRC licensees, the broadest base possible without a change in legislation.

SMALL ENTITY FEES

During the development of the annual fees in FY 1991, the NRC was also required to consider the provisions of the Regulatory Flexibility Act of 1980 (RFA). The RFA requires each Federal agency to consider the effects of its rules on small entities, that is, those small businesses, small governmental jurisdictions, and small not-for-profit (educational) organisations that might have difficulty in paying the full amount of the annual fees. The NRC, in compliance with the RFA, has established size standards that are appropriate to its nuclear regulatory responsibilities. The NRC used the size standards in establishing annual fees for small entities. Given the conflicting goals of OBRA-90 and the RFA, the NRC determined that the impact on small entities be reduced, not necessarily eliminated, by establishing a maximum annual fee of \$1 800 for qualifying small entities. In addition, a lower-tier small entity fee of \$400 was established for small entities with relatively low gross annual receipts. The annual fees for small entities are established in NRC’s fee regulations (see table).

To pay a reduced fee, a licensee must certify that it meets NRC’s size standards for a small entity. About 1 300 licensees certify each year that they qualify as a small entity under the NRC size standards and pay a reduced annual fee. Approximately 900 licensees pay the small entity fee of \$1 800 while 400 licensees pay the lower-tier small entity fee of \$400. Less than 1 per cent of the NRC budget is collected from licensees that certify that they meet the NRC’s small entity size standards. In order to recover 100 per cent of the budget, the costs of approximately \$5 million not recovered from small entities as a result of the reduced annual fees are recovered from other NRC licensees.

Maximum Annual Fee per Licensed Category

Small Business Not Engaged in Manufacturing and Small Not-for-Profit Organisations (Gross Annual Receipts)	
\$350 000 to \$5 million	\$1 800
Less than \$350 000	\$400
Manufacturing entities	
35 to 500 employees	\$1 800
Less than 35 employees	\$400
Small Governmental Jurisdictions (including publicly supported educational institutions) (Population)	
20 000 to 50 000	\$1 800
Less than 20 000	\$400
Educational Institutions that are not State or Publicly Supported	
35 to 500 employees	\$1 800
less than 35 employees	\$400

EXEMPTION FOR NOT-FOR-PROFIT EDUCATIONAL INSTITUTIONS

The NRC currently exempts licenses held by non-for-profit educational institutions from both fees for services and annual fees. However, if the license is used for remunerated services, then the exemption does not apply. The basis for this exemption is that a major benefit resulting from educational institutions' use of nuclear reactors and materials is the production of new knowledge through research, which the Commission would term a "public good," as defined in economic theory. The educational exemption has additional beneficial consequences. Colleges and universities not only produce research results and pure knowledge (what has been termed "public goods"), but also other benefits of great value to both the nuclear community and society as a whole. For instance, many of the students trained on research reactors will likely become the next generation of nuclear reactor operators and engineers.

LEGAL BASIS FOR FEES

Notwithstanding the success of the NRC fee programme, both the fees for services and annual fees have been challenged in court. With respect to fees for services, the Commission took into account guidance provided by the US Supreme Court on 4 March 1974, in its decision of *National Cable Television Association, Inc. v. United States*, 415 US 36 (1974) and *Federal Power Commission v. New England Power Company*, 415 US 345 (1974). In these decisions, the Court held that the IOAA authorises an agency to charge fees for special benefits rendered to identifiable persons measured by the "value to the recipient" of the agency service. The meaning of the IOAA was further clarified on 16 December 1976, by four decisions of the US Court of Appeals for the District of Columbia: *National Cable Television Association v. Federal Communications Commission*, 554 F.2d 1094 (D.C. Cir. 1976); *National Association of Broadcasters v. Federal Communications Commission*, 554 F.2d 1118 (D.C. Cir. 1976); *Electronic Industries Association v. Federal Communications Commission*, 554 F.2d 1109 (D.C. Cir. 1976) and *Capital Cities Communication, Inc. v. Federal Communications Commission*, 554 F.2d 1135 (D.C. Cir. 1976). These decisions of the Courts enabled the NRC to develop fee guidelines that are still used for cost recovery and fee development purposes.

The NRC's fee guidelines were upheld on 24 August 1979, by the US Court of Appeals for the Fifth Circuit in *Mississippi Power and Light Co. v. US Nuclear Regulatory Commission*, 601 F.2d 223 (5th Cir. 1979), *cert. denied*, 444 US 1102 (1980). The Court held that:

- the NRC had the authority to recover the full cost of providing services to identifiable beneficiaries;
- the NRC could properly assess a fee for the costs of providing routine inspections necessary to ensure a licensee's compliance with the Atomic Energy Act and with applicable regulations;
- the NRC could charge for costs incurred in conducting environmental reviews required by the National Environmental Policy Act;
- the NRC properly included the costs of uncontested hearings and of administrative and technical support services in the fee schedule;
- the NRC could assess a fee for renewing a license to operate a low-level radioactive waste burial site; and
- the NRC's fees were not arbitrary or capricious.

Annual fees for operating power reactors were challenged and upheld in their entirety in *Florida Power and Light Company v. United States*, 846 F.2d 765 (D.C. Cir. 1988), *cert. denied*, 490 US 1045 (1989).^{*} The NRC's FY 1991 annual fee rule, established in compliance with OBRA-90, was also challenged in Federal Court by several parties. The Court rendered its decision on 16 March 1993. In summary, the Court supported the basic fee methodology and the annual fee rule was largely upheld by the D.C. Circuit Court of Appeals in *Allied Signal v. NRC*, 988 F.2d. 146 (D.C. Cir. 1993).

NRC fees are not specified in detail in the fee legislation of the IOAA or OBRA-90. Rather, the legislation requires that NRC fees be established by rule, which requires public notice and comment before a final fee rule can be promulgated. Licensees have voiced complaints about the length of time it takes to establish fees by rulemaking, indicating that fees often do not become effective until late in the fiscal year and therefore they do not know what their final fee obligations will be until at least one half of the fiscal year is over.

FEE ORGANISATION AND COLLECTION

Within the NRC, the Office of the Chief Financial Officer has the responsibility for the fee programme. More specifically, the License Fee and Accounts Receivable Branch is responsible for administering the NRC fee programme. The Branch is a part of the Division of Accounting and Finance.

The NRC devotes the equivalent of approximately 25 full-time staff to administer its license, inspection, and annual fee programmes. This includes the direct staff resources expended to develop and issue, after evaluation of public comments, the fee regulations. The staff also issue bills for license, inspection, and annual fees; collect and deposit the fees; and resolve delinquent debts. In addition to these direct fee activities, these resources are used to respond to licensee exemption requests as well as a significant number of Congressional and licensees' letters and phone calls. This cost represents less than 1 per cent of the total fees collected in a given fiscal year.

With respect to the collection of fees, once the original billing or first-demand letter is sent, a second-demand letter is sent after 30 days, and a third-demand and final letter is sent after 60 days if payment has not been received. The third-demand letter is sent certified/registered mail with a request for a return receipt, and notifies the licensee that failure to pay or enter into an instalment arrangement within 30 days will result in the license being suspended or revoked. At least one phone call is made to the licensee informing him that an Order suspending his license would be issued for non-payment of the fee. If payment is not made within 30 days of issuing the Order, the Order is considered effective, and

^{*} Annual fees for operating power reactors were first established in FY 1987, in compliance with the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA). At that time the NRC was only required to collect 33 per cent of its budget for FY 1987 and 45 per cent of its budget for FYs 1988-1990, respectively.

the licensee no longer has a valid license to operate. At 180 days, the debt is referred to a collection agency. Questions and disputes by a debtor are ordinarily responded to within 30 days.

NRC refers the majority of its delinquent debt to the US Department of the Treasury (Treasury) for collection under the terms of a Joint Memorandum of Understanding between Treasury and NRC. Treasury utilises a variety of debt collection tools. These include referral to a contractor collection agency, reporting to a credit bureau, administrative offset, and tax refund offset. Administrative offset refers to offsetting any payment being made by other government agencies to a debtor (except US income tax refund offset). US income tax refund offset shall be pursued by the US Department of the Treasury in accordance with Treasury's statutory authority to do so and an agreement with NRC. NRC can terminate collection action and write off the bad debt at any time within 15 months of the original billing date. After 15 months, NRC will write off the debt and report it to the US Internal Revenue Service as debtor income if the amount written off exceeds \$600.

TRANSITIONAL ISSUES

The NRC has experienced many transitional issues since introducing and implementing OBRA-90 to collect approximately 100 per cent of new budget authority in FY 1991. The major transitional issues have been grouped, as appropriate, and are identified as follows:

Legal issues

- a) whether OBRA-90 permits the NRC discretion to explicitly exclude costs other than those recovered from the Nuclear Waste Fund from the fee base for recovery purposes;
- b) whether the NRC is required to assess license fees and/or annual fees to all classes of licensees;
- c) whether the NRC has authority to assess annual fees to Federal agencies given their exempt status under IOAA with respect to fees for services;
- d) whether the assessment of export licensing fees under 10 CFR Part 170 is a tax that violates Article I, Section 9, of the US Constitution.

Major policy issues

- a) Whether NRC can assess fees for costs not attributable to NRC licensees.
- b) Whether the NRC should consider economic (non-safety) impacts in assessing fees to licensees. For example, should NRC establish annual fees based on the amount of material possessed, the number of radioactive sources, the frequency of use of the material, the sales generated by the licensed location, the size and the profitability of the company, the market competitive condition of certain materials, and the effect of fees on domestic and foreign competition?
- c) How to reconcile the inherent conflicts between the Regulatory Flexibility Act, which states that in assessing fees, the NRC must consider the impact of the fee on small businesses and OBRA-90 that states the NRC must collect approximately 100 per cent of its budget.
- d) Whether the NRC should establish, in response to comments, a separate office or advisory committee that would include industry representatives to 1) assess the cost effectiveness of proposed generic programmes and to eliminate potential duplication of industry-sponsored programmes; 2) review agency cost trends and accounting practices; and 3) develop and propose future revisions to the fee regulations.
- e) Whether NRC should exempt certain licenses from fees.

LESSONS LEARNED AND SUMMARY

The NRC has learned both positive and negative lessons related to establishing fee schedules that recover approximately 100 per cent of the NRC's new budget authority. Although the process of establishing and assessing fees has been generally workable, the NRC has experienced some difficulties and have identified some inequities in implementing the OBRA-90 fee legislation. The NRC experience during the past six years has been mixed.

On the positive side, consistent with our statutory mandate, we have collected, on average, over 98 per cent of our budget in fees each year. In addition, the NRC has become more cost conscious, and continually works to improve the internal efficiency and effectiveness of its regulatory programme without diminishing its ability to protect public health and safety as we recognise that the regulated community must pay for each NRC expenditure (obligation).

On the negative side, NRC licensees fervently believe that the fee schedules are unfair and inequitable and they have terminated approximately 2 600 materials licenses and authorizations. They have stated that they are being charged for activities that do not provide benefits to them and many believe that the fee increases are not commensurate with the benefits they receive. Moreover, implementation has required the NRC to devote substantial resources to activities related to fee collection. In addition to the effort required to publish a final rule each year through notice and comment rulemaking and send out thousands of bills to licensees each year, the agency's staff has responded to thousands of phone calls, hundreds of exemption requests, and a large volume of Congressional correspondence relaying constituent concerns to the agency. In addition, there has been a judicial decision related to the fees assessed to implement 100 per cent fee recovery, two petitions for rulemaking, and an NRC Office of the Inspector General review of the fee programme.

On the basis of an assessment of lesson learned, the NRC has identified three major concerns relating to fees. First, licensees are billed for costs not directly related to providing services to them. This concern arises because costs for some NRC activities are not assessed to the beneficiaries of those activities due to legislative constraints and Commission policy. The costs that are not recovered from direct beneficiaries include: certain international activities, the NRC fee exemption for not-for-profit educational institutions, the statutory fee exemption under IOAA for Federal agencies, the NRC fee reduction for small entities, generic decommissioning/reclamation, and the Site Decommissioning Management Plan. Thus, to recover 100 per cent of the budget, these costs must necessarily be assessed to licensees that do not directly benefit from those activities.

Second, some licensees believe that the benefits received are not commensurate with the NRC fees they are assessed. This issue is raised most frequently by materials licensees. One particular area is the NRC materials regulatory programme that supports both NRC and Agreement State licensees. However, only NRC licensees pay fees to recover the cost of these activities. The NRC performs generic regulatory activities for nuclear materials users and uranium recovery licensees. These activities include conducting research, developing regulations and guidance, and evaluating operational events. These generic activities provide the basis for the NRC to regulate its approximately 7 000 materials and uranium recovery licensees. Because many Agreement States adopt NRC regulations, these NRC activities also provide the regulatory basis for the 29 Agreement States to regulate their 16 000 materials licensees. Under OBRA-90, the NRC cannot charge an Agreement State or its licensees an annual fee because they are not NRC licensees. Therefore, only about 30 per cent (7 000 NRC licensees of the total population of 23 000) of all materials licensees can be assessed annual charges to recover the cost of generic activities supporting both NRC and Agreement State licensees. As a result, part of the costs (about \$20 million in FY 1995 fees) for these generic regulatory activities that are included in the annual fees for NRC materials and uranium recovery licensees could be considered an unfair burden on NRC licensees.

Without legislation, the NRC's ability to resolve the fairness and equity concerns is limited. For those activities that the NRC is not required to fund through appropriation, the NRC could delete the funds from the budget and perform the work under reimbursable agreements. In FY 1995, the

Commission adopted a policy to accomplish this. Additionally, the Commission adopted a policy that would allocate the costs (about \$56 million in FY 1995) for the activities related to the fairness and equity concerns to all NRC licensees, the broadest base possible without a change in legislation. In this way, licensees pay a portion of costs based on their share of the total NRC budget. This results in power reactors paying 89 per cent of the costs compared to about 50 per cent of these costs in previous years.

Third, licensees are concerned because the annual fees fluctuated significantly from year to year because of budget changes and the changes in the number of licensees to be assessed fees. In the FY 1995 fee rule, the Commission provided a method to stabilise annual fees. This method was implemented in the FY 1996 final fee rule. Thus, the NRC has stabilised and improved the predictability of annual fees by adjusting the amount of the annual fees only by the percentage change (plus or minus) in NRC's total budget authority, adjusted by the change in the amount collected from fees for services and the number of licensees paying fees.

At best, it is extremely difficult, if not impossible, to develop fee regulations that all of the NRC licensees and applicants perceive to be fair and equitable. However, as a result of the changes previously noted, licensees have expressed fewer concerns.



COST ATTRIBUTION FOR INFORMATION TECHNOLOGY SERVICES AT THE US SOCIAL SECURITY ADMINISTRATION

by

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BACKGROUND

The Social Security Administration's (SSA) primary mission is to administer the Retirement, Survivors and Disability Insurance Program (RSDI) and the Supplemental Security Income Program (SSI) for the Aged, Blind and Disabled. In the early 1980s, SSA undertook a massive system modernisation effort to improve its capability to provide benefits and services to then 36 million RSDI beneficiaries and 4 million SSI recipients – and to ensure its ability to plan for and support growing workloads. SSA detailed its modernisation effort in a comprehensive plan called the System Modernisation Plan.

A component of the System Modernisation Plan was a project to implement a *cost attribution system* to track the costs of SSA information technology system resources and attribute those costs to users and to major programmatic systems which directly support the delivery of services to SSA clients. The system was to serve also as a capacity planning tool and to help track the use of on-line applications. A further objective was to better position SSA for compliance with Office of Management and Budget Circular A-130, which called for Federal agencies to fully account for the costs of information technology services.

PERFORMANCE OBJECTIVES

With the implementation of cost attribution, SSA management sought to achieve numerous performance gains in both data centre and user components. The cost attribution system would serve as a tool to further promote efficient data centre operations, and to bring about more accurate measurement of information technology systems usage and accurate identification of users/resources needed to support each user. SSA's budget process, which is largely based on programmatic funding, would be enhanced from more precise measurement of mission-related workload activity and related costs. Another key benefit would be the ability to detect and monitor trends and statistics for on-line processing and batch processing. Some general performance gains anticipated at the onset of the project were:

- maximisation of acquisition and application of information technology systems resources;
- justification for personnel levels needed to support operational workloads;
- optimisation and consolidation of existing management information data;
- fine-tuned budget and workload projections;
- clarification of data centre overhead costs;
- increased user awareness and compliance with operating standards;
- increased user awareness of applications support requirements; and
- additional source of information on programmatic workloads and trends.

COST ATTRIBUTION TEAM

SSA established a Cost Attribution Team and gave it the responsibility of developing and implementing a cost attribution system for the National Computer Centre. The Cost Attribution Team contacted the Federal Systems Integration and Management Centre (FEDSIM) and requested its assistance in this effort. FEDSIM and SSA agreed on a project consisting of three major phases: 1) develop a cost attribution system plan, 2) design and implement the system, and 3) revise and improve the system.

PHASE 1 – DEVELOPMENT OF IMPLEMENTATION PLAN (JANUARY 1988-OCTOBER 1988)

During the first phase of the project, FEDSIM developed a plan for developing and implementing a cost attribution system. To accomplish this, the first phase was separated into 6 tasks: 1) study the environment, 2) develop a rate-setting plan, 3) develop a cost accounting plan, 4) develop a usage accounting and usage reporting plan, 5) develop a cost recovery plan, and 6) brief SSA management and present an implementation plan.

Study environment

A key product of Phase I was the Study Environment Report. This report described the SSA environment in which FEDSIM would perform the cost attribution project. The report described the organisational structure, office components, individual information technology systems facilities, hardware and software architecture, major software applications, and current systems related to cost attribution.

The functions to be performed by cost attribution would generally be grouped as follows: usage forecasting, cost forecasting, and rate setting to be done on an annual basis; and usage accounting, usage reporting, and cost recovery to be done on a continual basis.

Usage forecasting

Usage forecasting and workload modelling was already being done at SSA for capacity planning purposes, and although usage forecasting was not part of the cost attribution system, this information was to be used in the cost attribution rate-setting process. It was decided that usage forecasts for the pilot system would be based upon the past years usage levels increased by estimates for the coming year.

Cost forecasting

Cost forecasting was to be based on collecting historical data from the cost accounting systems in place at SSA: hardware costs, personnel costs, facility costs, supply and material costs, contracts and agreements costs – the historical data provided the baseline. Added were estimates of changes to the baseline data.

Rate setting

Rate setting would consist of three parts: inserting cost data into resource allocation models, allocating the costs of each work area to the service provided, then dividing the usage forecasts into the total cost of the services. Rates would be recalculated annually.

Usage accounting

For the cost attribution system, usage accounting consists of using software tools such as SMF to meter the use of computer services and other tools such as SSA's Resource Accounting System to meter

personnel services. Services were to be metered at several levels: by organisational level, by workloads and activities, and by project. Users would be defined as different cost objects to which the cost of information technology systems usage would be attributed.

Usage reporting

Usage reporting would consist of analysing the metered data, applying the billing rates, and generating usage reports to be used for budgeting, management accounting, project management, forecasting, etc.

Cost recovery

At the completion of Phase 1, SSA decided to proceed with development of a pilot system, but decided that actual cost recovery would be applied only to external non-SSA data centre users as had been the ongoing practice.

There are two compelling reasons why SSA has not gone further to implement an actual cost recovery system. First, the current management process, in effect, provides adjustments of budget funds to the central information technology unit, the Office of Systems Operations (OSO), as work is performed in exchange for services; and second, increasingly favourable data centre performance trends lessen pressures for actual charging and dollar recovery:

1. The budget is established and routinely reviewed by high-level SSA executive staff. Budget allocations for data centre delivery of services for specific users is based on anticipated projects and workloads and information technology systems item costs; this budget is monitored by the Systems Review Board and measured against work performed and services delivered. Adjustments are made in a real-time mode as determined by the executive staff. Thus, real cost recovery, in the form of budget allocations/reviews/adjustments, is a by-product of management practices already in place.
2. Current data centre operations continue to be increasingly efficient. Each budget year, OSO delivers more services for less money. Productivity has improved each year despite reduced information technology systems budgets and fewer people. All the while, OSO has performed major technology upgrades and supported significant programmatic enhancements. Thus, there has been little user pressure or data centre incentive for more stringent cost recovery policies because of the increasing return for investment and favourable productivity trends demonstrated.

PHASE 2 – DESIGN AND IMPLEMENTATION OF PILOT SYSTEM (MARCH 1989-MAY 1990)

SSA authorised the Federal Systems Integration and Management Centre (FEDSIM) to proceed with Phase 2 in early 1989. During the second phase, FEDSIM designed and implemented a pilot cost attribution system for the Office of Systems Operations (OSO). The pilot implementation phase was separated into seven tasks: 1) design and implement usage accounting procedures, 2) design and implement usage reporting (billing) procedures, 3) brief SSA management on a mid-project report, 4) design and implement rate-setting procedures, 5) design and implement cost recovery procedures, 6) brief SSA management on final project report, 7) prepare documentation and train SSA personnel. Management reports were delivered on each Phase 2 task.

Based on SSA management considerations of regulatory requirements, environmental constraints, priorities, uncertainties as to funding, and the complexities of integrating cost attribution into the day-to-day operational processes, Phase 2 was initiated by FEDSIM under certain assumptions. Assumptions were: that SSA wanted to include only the Office of System Operations in the cost attribution system at this time; that the scope was to identify the cost of providing information technology

systems services to data centre customers; that SSA intended to use the Morino Associates, Inc. MVS Integrated Control System (MICS) usage reporting package for all of the OSO cost attribution system's usage reporting requirements; that SSA intended to recover costs only from non-SSA users.

FEDSIM used standard project development methodology in designing and implementing the cost attribution system: 1) document the cost attribution system functional design requirements, 2) translate the overall functional design requirements, 3) prepare a detailed design of the system based upon the system specifications, 4) implement the system design, 5) test the implemented system performing both unit testing and integration testing, and 6) prepare user documentation.

Functional design requirements

FEDSIM reviewed the reports that had been submitted to SSA as a result of Phase 1 of the project. The reports contained detailed analyses of alternatives for the cost attribution system, and contained FEDSIM'S recommendations regarding the alternatives that would best meet SSA's needs. FEDSIM discussed the reports with SSA management and technical personnel, focusing on the design issues and implementation strategies. From these discussions and the alternatives analysis, FEDSIM documented the functional design requirements.

System specifications

The overall functional design requirements were reviewed with SSA management, users, and technical personnel. FEDSIM then translated these functional design requirements into an overall system specification for the cost attribution system.

Preparation of system design

The overall design of the cost attribution system was generated from the system specifications. Additionally, FEDSIM interviewed numerous individuals at SSA to prepare the detailed design of the system. The purposes of these interviews were to 1) identify where certain data would be obtained, 2) understand the data elements themselves, 3) confirm the way SSA wished workload categories of users to be grouped and reported, and 4) establish operational procedures that are to be followed in the cost attribution system.

FEDSIM obtained data from SSA to describe the cost of resources used in providing information technology systems services, the budget data forecasting the costs, the reports available that describe the usage of information technology systems services, and the specific file formats in which data is stored. This data was analysed using FEDSIM and SSA personal computers. The analysis allowed FEDSIM to prepare a detailed design of the cost attribution system, including source of data, processes performed, files used, and reports produced.

Implementation of system design

The system design included four major components: 1) the rate-setting component, 2) the usage accounting component, 3) the usage reporting (billing) component, and 4) the cost recovery component:

1. The objective of the rate-setting component was to calculate the billing rates for the services by using 1) forecasts of the costs of providing the services and 2) forecasts of the usage of the services. The forecast costs of providing services are divided by the forecast usage to calculate the rate for each individual service. Most of the rate-setting procedures were implemented using software that FEDSIM designed and implemented for SSA. This software was referred to as SAS/ETS *Rate-setting Software*.

2. The objective of usage accounting was to attribute the use of services to the user of the services. Usage accounting consists of metering the use of different services that are provided using software tools such as SMF. Implementing usage accounting was performed by 1) defining the users of SSAs information technology systems services, 2) implementing required software, 3) installing the MICS Installation Accounting Component, and 4) designing and implementing user exits for other MICS components.
3. FEDSIM spent considerable time defining the “user” for the cost attribution system. This time was required because SSA views users differently than the more traditional view of the information technology systems user being only an individual or an organisation. SSA management wished to attribute the cost of providing services to both mission oriented workload and traditional users.

PHASE 3 – DEFERRED

A third phase, to enhance the pilot system after a period of experience, to revise the system documentation, and to more fully integrate the cost attribution system and other existing SSA management systems was discussed with FEDSIM. Phase 3 was deferred pending review of the pilot results and funding decisions.

SERVICES AND COST CENTRES OF THE COST ATTRIBUTION SYSTEM

The cost attribution system defines specific services, associates both direct and indirect costs for units of each service, develops rates for each service (re-computed annually), and collects usage data by different cost centres.

Direct costs include hardware, operator consoles, system support software, controllers, hardware/software related supplies, tapes, cartridges, DASD packs, ribbons, paper, supplies, etc.

Indirect costs include personnel salaries, fringe benefits, space, contracts and agreements, general supplies, consultant services, etc. These are calculated and attributed for each organisational component according to one of two methods: applying the same ratio as direct costs, or management judgement (allocation by Division Director). Work area allocation models are provided to managers each year as an aid to applying the management judgement method.

Both direct and indirect cost are measured for the following services:

- CPU utilisation;
- DASD – stored data;
- tape – stored data;
- tape/DASD for operations;
- printers;
- connect time for telecommunication operations.

The system associates service costs with pre-defined cost centres that essentially identify the programmatic family and using organisation.

- program family (CICS);
- application screen (CICS);
- office type (CICS);
- region (CICS);
- program family (batch);
- organisation (batch).

EXPERIENCE WITH THE PILOT COST ATTRIBUTION SYSTEM

Cost attribution has proven to be a significant capability for collecting information technology service cost data for user organisations and programmatic families. The pilot system has provided an opportunity to fine-tune software modules for the systems, integrate related resource and accounting systems – and the ongoing changes to those systems – and to modify output reports to better reflect operational and organisational changes.

Reduction of unidentified transactions

At the onset of cost attribution project implementation, there were, on average, 22 per cent of Batch/TSO processing costs non-attributable to any given programmatic family. With the gained awareness and system fine-tuning, non-attributable data has been reduced to 9 per cent in 1993, and to about 2 per cent currently.

Clarification of resources required to operate the data centre

Experience with the cost attribution system has clarified an overhead associated with the total data centre workload and made it possible to manage overhead and support resources more efficiently.

Improvements in standards and standards compliance

Users and data centre personnel and management have become increasingly aware of the need for stricter compliance with operational standards (*e.g.* data-naming conventions, organisational identifiers) to ensure proper and accurate accounting of information technology systems utilisation. Because of this awareness and because of fine-tuning in the programme modules of cost attribution, significant progress has been made in proper attribution of costs to cost centres. SSA management views the shift to stricter standards as an incremental process which must be planned to minimise problems.

COST ATTRIBUTION SYSTEM REVIEW

In 1992, SSA management asked FEDSIM to review the cost attribution system and provide an opinion on how to correct certain problems identified during the pilot system operation. Resulting recommendations were provided to SSA management and the recommendations were implemented by SSA technicians working with the day-to-day system responsibilities.

Currently, SSA intends to periodically review the operation of the cost attribution system and to make the modifications and adjustments needed to accommodate system and organisational changes. Improvements in the format and content of output reports are regularly considered and made as needed to better serve the users of those reports. It is unlikely, given the rapid environmental changes, technology advances, and programme structures, that there will be further major modifications of the current cost attribution system. Key to the success of the cost attribution system was the effort spent up front to clearly identify the organisation structure and clearly define the needed cost centre items. SSA management has concluded that the pilot experience with the cost attribution system, and adherence to the structured methodology employed for its development has brought about many of the performance improvements sought.

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Member countries are increasingly financing government services through user charging. The objective of user charging is not only to achieve cost recovery from users, but also to make government services more effective and efficient. This report presents the OECD Best Practice Guidelines for User Charging for Government Services and accompanying case studies.

