UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

DMFAS NEWSLETTER

DEBT MANAGEMENT AND
FINANCIAL ANALYSIS SYSTEM

No. 2 JUNE 1992

This is the second issue of the DMFAS Newsletter. We hope you enjoyed the first issue, and found it useful. In this issue, we will give details of the forthcoming new version of the DMFAS, the annual training seminar in Geneva and bring you an update on technical developments in the DMFAS. We will also be introducing a series of articles on work in the field, starting with Rwanda, on the international debt situation, and on the institutional environment in which computerised debt management can function most effectively.

THE NEW FEATURES OF DMFAS 4.1Plus.

1. Automatic update of theoretical amortization tables on change of loan agreement data (schedules, interest, face value etc.) and disbursements.
2. Automatic creation and update of estimated disbursements.
3. Facility for correcting ledger transactions.
4. Improved entry and validation of ledger transactions.
5. Loan Status added to the selection criteria.
6. Exchange rate variation report.
7. Calculation of penalty interest.
8. Procedure for recording arrears.
9. Function for automatic conversion of loans affected by the limitation of 100 disbursements per schedule which existed in DMFAS versions prior to version 4.0.
10. The period of detail can now be selected for loan statements.
11. Two new "moratorium interest" reports.
12. New report "Comparison of theoretical and ledger stock".
13. Improvement of the function for changing the face value of the loan.
14. Standardisation of DMS and DRES file status messages. Includes the replacement of codes with text in all messages.
15. Enhanced functionality through improved menus.
16. Interface between the World Bank's Debt Strategy Module and the DMFAS.

THE 1992 GENEVA SEMINAR

This year's annual DMFAS training seminar will be held in Geneva from 21st September to 2nd October. The seminar is directed at current users of the DMFAS system who also have prior experience of using the system; ideal participants would be, for example, the Debt Manager (or equivalent) and a DMFAS operator. The seminar will be conducted in English, French and Spanish.

The seminar has two main objectives. Version 4.1Plus of the DMFAS will soon be released and seminar participants will be trained in the enhancements to the system provided by the new version. Users will also be introduced to the World Bank Debt Strategy Module (DSM) which is an additional debt analysis system, integrated into the DMFAS (see article on p.2).

In order to help participants disseminate the knowledge gained during the seminar to their colleagues in their country unit, practical exercises will be given, with one day dedicated to a case study. Furthermore, there will be a round table discussion where participants can air their concerns about both technical and institutional issues. Feed back from the round table has proved to be a valuable source of information on users' needs and requirements which help when updating and improving the DMFAS.

UNCTAD/GID/DMS/4

COMPUTERIZATION IS NOT ENOUGH!

While the development and installation of the DMFAS constitutes the core activity of UNCTAD's technical co-operation programme in the area of debt management, UNCTAD has increasingly devoted attention to the legal, institutional and administrative environment or framework in which the system operates.

As explained in the first issue of the Newsletter, the development of the DMFAS started because of UNCTAD's involvement with the Paris Club and the acknowledgment that developing countries needed to have access, at any time, to detailed, accurate and up-to-date data relating to their external debt, both on a loan-by-loan and an aggregate basis. Computerization was seen as the ultimate solution, and improved debt information and statistics would result in better policy making.

During the implementation of the DMFAS programme it was realised that, without looking at institutional issues no real advantages could be drawn from the system. In particular, an adequate legislative, institutional and organizational framework has to be set up in order to collect the necessary information, as well as to disseminate it. Furthermore, complete and accurate information in itself is not sufficient and is not an end in itself. Analysis and control of the information must follow and contribute to policy-making.

In response to a growing awareness of these facts, UNCTAD developed a theoretical framework for analyzing the institutional issues through the definition of essential debt management functions (for an explanation of the main functions involved in debt management and their interlinkages, see "Effective Debt Management", (UNCTAD/RDP/DFP/DMS/2, Geneva 1989)). The recording of debt data, whether computerized or manual, is but one function of effective debt management.

UNCTAD's technical assistance in the area of debt management has also become more geared towards institution-building, to which the installation of a computer-based system is only a complement. This new approach is also one of the main features of the Joint Programme by UNCTAD and the World Bank to provide debt management technical assistance services to developing countries.

THE DEBT STRATEGY MODULE - A NEW DMFAS FACILITY

Up to now, the Debt Projections and Balance of Payments Linkage System (DPS) has been the only analysis tool available within the DMFAS for policy makers in developing a debt strategy. Given the limited present scope of the DPS, a more dynamic and versatile tool is needed. Following the agreement between UNCTAD and the World Bank to provide joint technical assistance on debt management to developing countries (see first issue of DMFAS Newsletter), it has been decided to include a facility to access the World Bank's Debt Strategy Module (DSM) from the DMFAS. This will bring a great improvement to the analysis facilities provided by the system.

The DSM allows users to model the future debt and debt service burden of their country based on the analyst's assumptions about world economic outlook and balance of payments indicators. Or, the same debt management actions can be tested with different sets of background assumptions to provide a general sensitivity analysis. The data output from a strategy run can be formatted either as standard tables or as data extracts ready for transfer to a spreadsheet package.

Debt data are stored in the DMFAS as individual loans, whereas the DSM operates on aggregated loan data. As part of the seminar in September, users will be shown how debt data is selected, aggregated, reformatted and passed from the DMFAS to the DSM.

External debt management, as seen today, is a comparatively recent phenomenon and as such is not well understood in many countries, developed as well as developing. It has become a critically important issue to governments only in the last 5 to 10 years, and its policies and practices, as well as its technical instruments, are still evolving rapidly at the national as well as the international level. As with any new development, time will be needed for it to be known and accepted as a legitimate concern of the government. Both UNCTAD and the World Bank, through their technical assistance activities, are thus contributing to the establishment of debt management as a new field in public administration in developing countries.

TECHNICAL FOCUS

In the last issue of the Newsletter we discussed the importance of taking backups. As a continuation on the same theme, and following a call for help from one of our user countries, this issue's 'Technical Focus' looks at how to recover the schedule file (GDB002) and the ledger file (GDB029) when corrupted data is present.

All major DMFAS data files are indexed files, which implies that the data in the file is divided into a data and an index part. When the file is initially created (or later recreated through the DMFAS restore procedure) a certain disk space is allocated to the file together with enough space for entry of new data. The safety of this file can only be guaranteed by taking regular backups (safety copies) through the DMFAS backup functions. However, if the file is subject to a heavy continuous updating process, the index part of the file needs to be "cleaned" from time to time (e.g. once a month). This can only be done by restoring the file from its corresponding DMFAS backup diskettes. If this is not done on a regular basis, the index part which points to the individual data records will be overloaded and loss of data follows. The symptom of this is usually the message "index error". Unfortunately, when this happens, it also means that a full recovery is already too late and some data will be lost.

When an "index error" has occurred, the following procedures can be used to identify corrupted loans and recover the corrupted file:

(a) Procedure for checking loan agreement data

Select the Amortization schedules from the DMS Reporting menu. From the subsequent menu, select Full schedule. This report should be directed to the hard disk. Select the option starting and ending loan numbers (method 2) from the selection component. Specify the set of loans for the report to be 1 - 9998. In the subsequent processing, the software displays in turn on the user's screen each loan id as its data are being processed for the report. If an erroneous loan is encountered, the software "freezes" and the corresponding loan id remains "frozen" on the screen. When the user has noted down this loan id, the microcomputer is restarted and the above steps of the selection process are repeated up to the step of specifying the set of loan numbers. Here the starting loan number should be the loan number after the erroneous loan and the ending loan should be 9998. This procedure is then repeated until the reporting feature has gone through all loans (1 - 9998). Note that this procedure only describes checking of the financial category for medium and long term loans (2). If other categories are also in use, the same procedure is repeated for them.

(b) Procedure for checking ledger data

Select the Ledger reports from the DMS Reporting menu. From the next menu select Accounts, then Loan standing by loan id. Repeat all the remaining steps described in the procedure for checking loan agreement data above.

The above two procedures should normally identify all erroneous loans. Once these loans are known, their data can be corrected. Depending on whether the erroneous loans were identified through procedure (a) or procedure (b) above, or both procedures, corrections should be made either to the schedule or the ledger file (or both).

(c) Procedure for recovering the corrupted file

(a) Take a DOS backup (or PC tools backup) of the damaged file(s) (safety copy) if you have not already done so.
(b) Take a DMS subset backup (starting and ending loan numbers) of the damaged file(s) excluding all corrupted loans.
(c) Set the volume count for the backup file(s). To do this, start the DMFAS, go to Monitoring and from there to System Administration. Next select Update reference files and Update data dictionary. Then select Update file descriptions. Give value FDB100 for the ledger or FDB062 for the schedule file for field 1 and change volume count to equal the total of the corresponding diskettes (field 6). After the Change command you can return to the Systems Administration menu.
(d) Restore the backup file(s) from the DMS backup/restore menu.
(e) Enter manually all ledger transactions (historical and normal) for loans that were eliminated from the new ledger and all schedule transactions that were eliminated from the schedule file.
(f) Check amortisation tables and loan statements of the newly entered loans against previous data and make corrections where required.
(g) When the recovery activity has been completed, take a normal DMS backup of the corrected file(s).

PROSPECTS FOR DIMINISHING THE DEBT BURDEN OF THE LOWER INCOME HIGHLY INDEBTED ECONOMIES IN THE 1990s

During the 1980s the increasing inability to deal with the severe external debt situation of the developing countries polarised debtors, creditors and their spokespersons. However, the 1990s have witnessed an improvement in attempts to deal with this situation. The environment has become more sympathetic: there has emerged a consensus on the scope for spreading the burden of potential losses, even though there seems to be no panacea.

Ingenious proposals for debt forgiveness, debt reduction and debt conversions have been and are continuing to be applied. These efforts have eased the immediate financing strains on some heavily indebted countries allowing them more room to implement adjustment policies. In the forthcoming editions of the DMFAS Newsletter, the effectiveness of various debt instruments will be discussed and analysed.

In this issue, we will look at the most recent innovations in Paris Club debt reorganisations. In December 1991 the Paris Club introduced enhanced concessional treatment for low income countries, applied firstly to Nicaragua and Benin, and a month later to Bolivia and Tanzania. Eligibility for these new terms is the same as for the Toronto Terms: they only apply to countries designated by the World Bank as eligible for concessional assistance from the International Development Association. Under the new exceptional terms debt service payments due on non-concessional debt during a period of 12 to 18 months are reduced by 50% in net present value terms as applied to debt service obligations. To achieve this creditors can choose between three options: 1) A 50% write-off of the debt service obligations falling due within the consolidation period with the remainder rescheduled at the market rate over a period of 23 years with a 6 year grace period; 2) To reschedule the debt service obligations falling due within the consolidation period at concessional interest rates to obtain a 50% reduction in the net present value with a maturity period of 23 years and no grace period; 3) To combine interest rate reduction and partial interest capitalization, with no interest charged on the capitalized interest rate, with repayment over 23 years and a 6 year grace period. All three options are equivalent in net present value terms.

As far as ODA debt is concerned the new treatment does not provide for debt reduction. However, such debt is to be rescheduled on a very long term basis, that is, 30 years maturity including a 12 year grace period. However, if certain creditor countries cannot offer concessional relief, then it is possible to apply Option B of the Toronto Terms, a previous scheme adopted by the Paris Club, which stipulates consolidation of non-concessional debt at market related moratorium interest with repayment over 25 years and a 14 year grace period.

In addition to the debt reduction provided for in the new terms of treatment for low income countries, further debt reduction can be obtained via swaps. For ODA debt there are no limits as to the amount that can be swapped. Whereas for non-ODA debt the limit is up to 10% of the outstanding credits or up to $10-20m, whichever is higher.

The impact of any debt relief exercise is not clearly manifest since the impact on debt indicators, such as debt to GDP, debt to exports, debt service and interest payments to exports depends on the type of debt relief applied. There has been a significant decline in these indicators for the highly indebted middle income countries as a result of recent debt strategies. For instance, in the group of fifteen heavily indebted middle income countries the debt to GDP ratio declined since 1986 by 4 to 6 percentage points. However, this ratio has increased significantly for the small low income countries including Sub-Saharan Africa, whereas the interest to debt service ratios have not really been affected. Furthermore, the debt stock of these countries has increased considerably. Since debt relief has had an uneven effect on developing economies, it has become important for the Paris Club to increase its focus on reducing the debt burden of the lower income highly indebted countries.

The installation of DMFAS in Rwanda

In August 1988 a request was made by the Ministry of Finance to UNDP for the DMFAS to be installed in Rwanda. The project document was signed on 14th May 1990.

The management of public debt in Rwanda is the responsibility of the Division for Public Debt, which is part of the "Direction générale" of the Treasury and Public Accounting Office in the Ministry of Finance.

The DMFAS has now been installed, and missions have been carried out both by Mr. Pål Borresen, CTA of an interregional project funded by the Government of the Netherlands, and by Mme Bernadette Bodin, financial economist. Mme Bodin recently returned from a four month mission in Rwanda, and told us how the project is progressing:

What was the purpose of your mission?

To study information flows, reconcile loan balances and to help the debt division with filling out the DMFAS Forms, and producing reports.

How many loans have been entered?

All the loans have now been entered.

What kinds of loans?

Originally it was only intended to register external debt, which makes up 40% of the number of total loans. Then it was decided to register domestic debt as well.

Why?

Domestic debt is a large part of the total debt, and for the Rwandans to be able to manage the debt, it seemed a good idea to include domestic debt.

Did you encounter any particular problems whilst you were there?

We had no technical problems at all. The computers we used were used exclusively for the DMFAS, and we were able to stick to the work plan exactly.

How up-to-date is the information in the system?

We chose a cut-off date of 31 December 1991. All transactions in the first quarter of this year have been entered.

What has the DMFAS proved most useful for?

The debt division is now able to produce reports, both projections of debt service and disbursements, and ledger reports. In general, the quality of information is better, and more sophisticated than what was produced manually before.

Did you carry out any training whilst you were there?

We had a training course for two weeks in April, which concentrated mainly on reporting from the DMFAS.

What was it like working in Rwanda?

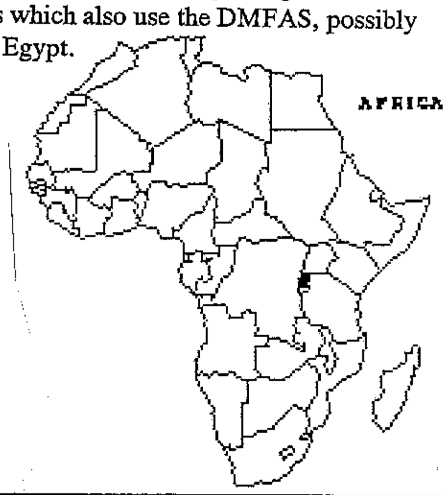
Despite a difficult situation in the country, the working conditions were good. There was a curfew from 11pm to 6am, but the political changes going on did not affect our work.

There are six people working on the DMFAS, including the National Project Coordinator, and we had a meeting to discuss progress each week. There was a very good working atmosphere.

What will happen now in the project?

Some officials will come to the seminar in September in Geneva on 4.1Plus. There will be another mission to Rwanda later this year, to train in the DPS and the DSM, to reconcile balances after transactions have been entered for the second and third quarters of this year, and to give some training in 4.1Plus of the DMFAS.

We also hope to organize a study tour for officials from the debt division at the beginning of 1993 to two countries which also use the DMFAS, possibly Djibouti and Egypt.



World Bank/ UNCTAD Joint Programme

As explained in the first issue of the Newsletter, the World Bank and UNCTAD, have initiated a Joint Programme, co-sponsored by UNDP, to provide debt management technical assistance services to developing countries. The activities under this Programme are proceeding very satisfactorily, and international staff in New York, Washington and Geneva are combining their efforts to make things happen.

The first meeting of the inter-agency Steering Committee for the Joint Programme was held in New York at the beginning of May, and representatives from the three institutions reviewed the progress made so far. The next meeting of the Steering Committee is scheduled for July.

In the meantime, and as explained elsewhere in this Newsletter, further work has been carried out on the system development side with an interface being built between the World Bank's DSM and DMFAS Version 4.1Plus. UNCTAD's Debt Management Section, with the collaboration of the staff of the Debt and International Finance Division of the World Bank, is also preparing the ground for the design and development of Version 5. It has been decided that this new system will be called SAGE (this acronym was derived from the French name "Système d'Aide à la Gestion de la dEtte").

During the next weeks the World Bank and UNCTAD will also undertake joint needs assessments missions to two countries. The objective of these pilot missions is to assess the capabilities of these countries in the management of their debt and foreign exchange resources and to elaborate a general methodology for future financial technical assistance.

MISSIONS OF DMFAS TEAM MEMBERS JANUARY - JUNE 1992

Enrique Cosio-Pascal
World Bank, Washington (January/February), World Bank, Paris (February), Romania, Zambia (March), SEACEN, Malaysia, Iran (April), UNDP, New York, World Bank, Washington (May).

Pekka Sankala
World Bank, Washington (January, May), Côte d'Ivoire, Senegal (June)

Alain Bodin
World Bank, Washington (May), BCEAO countries - Benin, Burkina Faso, Côte d'Ivoire, Mali, Niger, Senegal, Togo (May/June)

Philippe Straatman
Ethiopia (February)

Sarah Ross
Zambia (March)

Bernadette Bodin
Four month mission as financial economist in Rwanda.

Pål Borresen
Continued his work as CTA in Burundi, Rwanda and Uganda.

ARRIVALS AND DEPARTURES

Fedra Dell'Aquila
Began work with the DMFAS team in February 1992 as an Associate Expert funded by the Italian government.

Roberto Volpato
Left the DMFAS team in April 1992 after a year as Financial Economist funded by the Italian government, seconded from the Banco Credito Italiano, Milan.

Jacques Baert
Seminar director for training seminar to be held in Geneva in September.

Ina Schwarz
Began three month assignment in June 1992 as trainee to work on the legal aspect of loan contracts.

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