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Thailand

Health Care Reform: Financial Management

Report 3

A Financial Coordination Framework A first general outline

May 2009

ILO component: Financial Management of the Thai Health Care System (THA/05/01/EEC) under: EU/Thailand Health Care Reform Project (THA/AIDCO/2002/0411)

> Social Security Department International Labour Office – Geneva

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Contents

Page

List c	of abbreviations	v					
Repo	rts produced under the project	vii					
Forev	word	ix					
1.	Revised focus	1					
2.	Justification for the FCF/FCG						
3.	Scope of the FCF						
4.	4. Practical implementation of a FCF: the standing working group on financial cooperation, Financial Cooperation Group (FCG)						
5.	Draft Terms of Reference for a FCG	9					
6.	Staffing of FCG	15					
Anne	ex. On modelling	17					
Biblio	ography	19					

List of abbreviations

COHI	Central Office for Healthcare Information
COICOP	United Nations Classification of Individual Consumption According to Purpose
CSMBS	Civil Servants' Medical Benefit Scheme
EU	European Union
FCF	Financial Coordination Framework
FCG	Financial Coordination Group
HWS	Health and Welfare Survey
IHPP	International Health Policy Programme
ILO	International Labour Organization or International Labour Office
MoC	Ministry of Commerce
MoF	Ministry of Finance
MoPH	Ministry of Health
NHA	National Health Accounts
NHSO	National Health Security Office
NSO	National Statistical Office
SECSOC	Social Security Department of the ILO
SSO	Social Security Office
SSS	Social Security Scheme
SUR	Services Utilization Rate
UC	Universal Health Care Scheme
WCS	Workmen's Compensation Scheme

Reports produced under the Project

- Report 1 Statistical reporting: Structures, methodologies, data and outputs. Initial review
- Report 2 The calculation of capitation fees and the estimation of provider payments. Initial review
- Report 3 A Financial Coordination Framework. A first general outline
- Report 4 Proposal for a Revised Capitation Calculation and Financial Equalisation System
- Report 5 An International Course in Health Finance for South-East Asia
- Report 6 A Common Health Care Financing Model (I) for CSMBS, IHPP, NHSO and SSO. Terms of Reference, Review and Supervision; and Proposal for the Implementation of a Financial Management Structure
- Report 7A A Common Health Care Financing Model (II) for the main health purchasing agencies
 - Universal Coverage Scheme
 - Social Security Scheme
 - Civil Servants' Medical Benefits Scheme, and

Projection Module for the National Health Accounts User Manual

- Report 7B A Common Health Care Financing Model (II) for the main health purchasing agencies
 - Universal Coverage Scheme
 - Social Security Scheme
 - Civil Servants' Medical Benefits Scheme, and Projection Module for the National Health Accounts Documentation of work and progress
- Report 8 A Common Health Care Financing Model (III) for CSMBS, IHPP, NHSO and SSO, and Proposal for the Implementation of a Financial Management Structure. *Note on Implementation*
- Report 9 A Data Reporting Framework
- Report 10 Indicators for the Financial Coordination Group for monitoring the UC scheme and national health budget
- Report 11 Contents and Structure for Annual Reporting on the Financial Development of the Public Health System
- Report 12 Proposed structure of an Integrated Financial Monitoring System

Foreword

Since May 2003 the European Union (EU) has been committed to supporting health care reform in Thailand through the **Health Care Reform Project** (THA/AIDCO/2002/0411). The support and assistance of EU followed Thailand's bold initiative towards achieving full population coverage in health care when, in 2001, Universal Health Care was written into law with the introduction of what became popularly known as the "30 Baht" scheme. Under the scheme full access to health services became available to all Thai citizens.

A separate component was established within this project to address issues relating to the **Financial Management of the Health Care System**¹ which is being executed by the Social Security Department of the International Labour Office, Geneva (THA/05/01/EEC). Technical assistance activities under the project have been on-going since spring 2006 and will continue until mid-2009.

Specific activities were scheduled under the ILO component, to be documented in a series of technical reports, including reviews on:

- (1) the present state of the statistical reporting system; and
- (2) the calculation of capitation fees and payment systems in Thailand's health system;
- (3) the third report in this sequence was initially supposed to be an outline of a component of Thailand's overall health monitoring system that monitors the finances of the country's health system in an integrated way (Integrated Financial Monitoring Framework INFIMO).

The present report addresses item (3) above, albeit in a modified way.

¹ EU: Financial Agreement between the European Community and the Kingdom of Thailand, Health Care Reform Project (THA/AIDCO/2002/0411), section 2.1.2 on Financial Management.

1. Revised focus

This draft report takes into account some of the results of the (second) mission to Bangkok undertaken by Mr Scholz in October 2006, during which agreement was reached on conceptual changes to the initial approach of an Integrated Financial Monitoring System (INFIMO), see below. Furthermore, the draft draws substance from discussions held with Ms Taweesri Greetong and Mr Thaworn Sakunphanit, both National Health Security Office (NHSO) officials and, during 2005/6, with students on the Social Protection Financing (SPF) masters course at the Graduate School of Governance in Maastricht, Netherlands. They helped to clarify many open issues during their visit to ILO headquarters, Geneva, from 31 July to 4 August 2006 and kindly gave permission to use, for the purposes of this report, information contained in their recently finalized Master Theses (see list of references). It should be mentioned that Mr Samrit Srithamrongsawat had taken up a new post during the period between Mr Scholz's visits in March and October and, in terms of project involvement, had been replaced by Mr Thaworn Sakunphanit.

The above mentioned changes refer to the following.

It was agreed that the acronym INFIMO would no longer be used within the project. It transpired that this notion triggered more questions than it was able to answer in the Thai Government context and in the wider Thai public. Obviously, acronym and notion had been burdened with a negative connotation of tight "top-down" government control of the different health purchasing schemes (Civil Servants' Medical Benefit Scheme (CSMBS), Social Security Office (SSO), National Health Security Office (NHSO)/ Universal Health Care Scheme (UC), the private sector), including the insinuation of a tendency to unify these schemes under one system.

It must be stressed that it was not, and is not, the intention of the ILO to suggest such a move nor to implement a system that would lead to, or insinuate, such a unification of CSMBS, SSO, and UC. Therefore, it is accepted — and the ILO is thankful for the respective discussions and clarifications undertaken in Bangkok in October 2006 — that such a misunderstanding should be strictly avoided, including through revision of terms.

We will therefore, hereinafter, use the notion "Financial Coordination Framework" (FCF), instead of INFIMO.

Accordingly, the previous notion "Central Financial Monitoring Unit" (CFMU) will be relabelled, also, to "Financial Coordination Group" (FCG). At the outset of the project, the CFMU was thought to be an administrative unit to be integrated into the existing government administrative structure, either within the Ministry of Health (MoPH), the NESDB, or in one of the health purchaser's formal administrative structures. Finding the right institutional setting for the CFMU was initially understood to be part of the project. However, discussions with, and reactions from, the Thai counterparts to the project showed that finding such a setting was not acceptable in the Thai context. Therefore, a different solution/approach had to be found.

During a meeting with Dr Viroij, the Director of the International Health Policy Programme (IHPP) on 12 October 2006, in the presence of the project implementation unit (Dr Thaworn) and the ILO (Mr Scholz), the scope of FCF/FCG and ILO's involvement was, accordingly, reduced to the three public schemes: CSMBS, SSO, NHSO/UC. In other words, it was agreed that all other institutions/functions that are covered, for example, in the Thai National Health Accounts are no longer within the scope of this project (although this differs from the initial interpretation of the project document.) One consequence of this decision is that all data collection within the project, including any statistical

procedures that might have to be developed, only relate to personal health care. (All other statistical information on Thailand's health system, that is, for example, covered by the National Health Accounts (NHA)/the SNA is to be left untouched). Participants in the meeting assumed and agreed that this reorientation of the direction of the project would not require a reformulation (change) of the project document, but could be based on mutual agreements between all parties involved (Memoranda/Letters of Understanding).

In connection with the sequencing of reports, as foreseen in the project document, in this report we are aiming at setting up a first outline of the FCF and the FCG. Sketching, not detailing, the degree of formality of this group — the *Financial Cooperation Group* (FCG) — its duties, its operations, in short: its Terms of Reference and, based on this, its potential staffing, is part of this initial draft. It will be complemented later by a more detailed report that takes into account necessary inputs from other project results, which ought to be achieved, before entering into more details of the FCF/FCG.

This report remains a "draft" given the complexity of the tasks to be fulfilled under the ILO component; already, many items need to be addressed that require further in-depth research and clarification later during the course of the overall project. According to the project design this report, together with other initial [draft] reports, will be reconsidered, rewritten or complemented by further reports later during the project, aiming at, among other things, a fully-fledged design proposal for a financial monitoring system of Thailand's health sector.

2. Justification for the FCF/FCG

In legally providing its whole population with equal access to health care, Thailand has, in recent years, executed social policy very much in accordance with ILO's decent work agenda. Although this policy, in concrete terms and fiscal effects, may not be what a majority of development economists consider reasonable, an increasing and important section of the economic profession sees the essentially positive impact of such policy on the health of populations: productivity, poverty reduction and economic performance, in general. The ILO very much shares the latter view; social policy and health policy, especially, are productive economic factors.

Nevertheless, it has to be admitted that Thailand, despite its impressive overall economic performance during the past decades (except for the period of the financial crisis 1997/98 and its repercussions) is still, by and large, a low-income country (in per-capita income ranking around 100^2 from the top).

This is why the success or failure of Thailand's universal coverage policy is tantamount to putting the idea of a social (health) policy, as a productive factor, to a reality test. In broad terms, failure would mean stagnation of Thailand's international per-capita-income ranking; success would suggest Thailand's ability to further climb up the ladder, leaving behind other countries, not pursuing similar policies.

Thailand's universal coverage policy can only be successful if it complies with available resources. Making available (additional) resources for health policies to improve the health sector is, in essence, a decision to be taken by society itself. In order to acquire its fair share, the health sector, on one hand, must not overstretch the available economic resources, but on the other hand, must not miss opportunities of exercising direct or indirect expansionary dynamics on society and the economy.

Not overstretching available resources immediately calls for financial monitoring and fiscal control, i.e., in practical governance terms, creating a Financial Coordination Framework which, at its core, monitors the health sector's permanent demand for higher resources, but keeps it in line with the financial resources made available by society, essentially through government decisions.

Making direct or indirect expansionary impacts on society and the economy is about health policies aimed at optimizing the structures of the health sector. In many ways, this is impossible when sufficient resources are not available or are inefficiently and ineffectively used. Only efficient and effective operation, which avoids redundancies and waste, can justify the health sector's demands for higher financial resources.

Thus, FCF must, in practical terms, address and focus on two aspects: (i) *directly*, the notorious limitation of resources available for public health policies; and, simultaneously, (ii) *indirectly*, the efficient use of available resources and their effectiveness in improving the health situation of Thailand's population.

While the FCF can be considered a (virtual) conceptual framework, it will be put in place through the Financial Cooperation Group, a standing working group to be established by CSMBS, SSO, and NHSO/UC.

² Depending on method used.

3. Scope of the FCF

In broad terms, the scope of the FCF is statistics plus model(s) used for budget planning purposes and also for medium- to long-term outlooks on public health finances.

Statistics comprise all those already available that are required for budget planning purposes. These statistics are mainly provided by health purchasers (CSMBS, SSO, NHSO/UC) and, partially, by health providers (hospitals). Statistics of health purchasers are so-called administrative statistics (data collected as part of the administration-of-the-system process), providers' statistics are hospitals' Report #5 in case of NHSO/UC, and other providers (hospital) reports in case of CSMBS and SSO.

In addition to these statistics directly required for scheme budgeting purposes, there are other types of statistics required by the FCF, which comprise demographic information (population statistics), labour market data, National Accounts, National Health Accounts etc. These latter data are required to put scheme administration into perspective, and to allow for rational model building required for budgeting purposes.

4. Practical implementation of a FCF: the standing working group on financial cooperation, Financial Cooperation Group (FCG)

The different approach pursued from now on in the project aims at implementing the FCF by setting up a standing inter-institutional working group with CSMBS, SSO, and NHSO/UC as equal partners, independent from, but ready to cooperate closely with, other government departments, such as MoPH, the Ministry of Finance (MoF) and NESDB.

It is foreseen that CSMBS, SSO and NHSO/UC inputs to the standing working group will consist of their own, scheme-specific "health purchaser" models, fully or partially developed or improved (to the extent that such models, or components thereof, already exist) with the assistance of the ILO project team; model projections will be simultaneously planned and carried out, within the FCG, using mutual information on exogenous model assumptions of either institution, if possible with consensus on those.

Members of the FCG will be mutually supportive, to the extent possible, with respect to overcoming modelling problems that might occur.

To this end, the FCG will commonly maintain an historical data base and undertake data analysis. Conclusions drawn from data analysis will be channelled into modelling improvements, and improvements of other analytical tools, of either institution.

The data base will be designed such that it can directly be made available to the IHPP with respect to its regular calculations of the NHAs.

The type of (health purchaser) models to be developed/improved are of a short – (budget), medium – and long-term projection and simulation character, according to needs; they will distinguish between acute care and long-term care.

Long-term care is a "new issue" in the context of Thailand's wider health care policy discussions. As in other countries, changes in family size and structure, and in labour market conditions, mean that family care is no longer available to the required extent or intensity. Given this background, it is obvious that no data are yet available that could provide a basis for modelling long-term care. In other words, this part of the model(s) to be developed will be of a rather "generic" character applicable for costing of legislation under different assumptions.

During Mr Scholz's discussions with technical project counterparts, it was agreed that the model(s) to be developed/improved must be mainly demand-side driven (how many cases?), but also have a strong supply-side "leg" (capacity orientation: are the required numbers of carers available?), and must have a clear focus on financial (budgetary) costing.

Generally, it was agreed that the FCG should be designed in such a way that it can effectively take part in, and support, the continuing social policy/health reform process in Thailand.

Model design should also be such that it allows for projecting and monitoring, on an annual basis, the financial statements of the providers (hospitals) related to CSMBS, SSO and NHSO/UC at *individual provider level*. The data base required for this undertaking is, for the time being, defined by *Report No. 5* in the case of NHSO/UC, while SSO and CSMBS have their own respective financial reports. It is expected that FCG members, during this project, together with the ILO, develop a method(s) acceptable to all three institutions.

5. Draft Terms of Reference for a FCG

The standing working group might be charged with the following tasks:

- Collect systematically and continuously the following information (thus setting up a data bank):
 - Statistics on:

National Accounts, i.e., GDP (nom, real), GDP by sectors (special focus on health sector according to SNA), primary distribution of GDP, wages (national, sectoral, especially in health sector), etc.;

Population and labour markets, i.e., full breakdown of labour supply and demand; breakdown of labour demand, especially by sectors, focus on employment in health, etc.;

Scheme populations: i.e., members and beneficiaries of CSMBS, SSO, NHSO/UC;

Prices, especially on prices/costs in the health sector, pharmaceutical prices, etc.;

Financial flows (revenue, expenditure) of the health system by the three schemes; "physical" variables determining health finances as, for example: number of health staff (doctors, nurses, others), number of hospitals, beds, inpatient "contacts", number of drugs sold/prescribed etc.:

International developments in health care (for international comparison), for example: mortality rates, deaths by type (according to WHO systematic), prices of drugs, etc.;

Statistics collected are to be stored in a *Statistical Archive* (hardcopies, electronically) and should be made accessible, in Thai and in English, on the Internet.

• Develop and maintain knowledge/expertise on *methodology* of:

Population statistics and National Accounts, especially methodological treatment of health in the SNA;

Treatment of health within the system of health accounts (WHO-systematic);

Information is systematically to be stored in the Statistical Archive.

• Maintain *legislation* on health:

National;

International (selection);

All information to be systematically stored in the *Statistical Archive*.

• Aim at and maintain active *membership* of working groups:

In order to maintain knowledge base (members of) the FCG participate in international (regional) and national working groups that deal with health financing issues; through participation in these working groups the FCG maintains its stakes in the national and international debate/discussion/ developments of health financing policies.

All information is to be stored in the *Statistical Archive*.

- *Analyse* the information collected for purposes of budgeting/policy information. Analysis of the collected information comprises:
 - *Processing* of statistical information collected with the help of standard statistical techniques (programmes);
 - Tabular and graphical *presentation* of information;
 - Factor analysis/*explanation* of statistical results;
 - *Interpretation* of statistical results;
 - Monitoring and assessment of *adequacy of legislation* on basis of statistical results;
 - Monitoring and assessment of international and national statistical and *methodological* developments in the area of health;
 - Monitoring and assessment of internationally implemented developments in *health policies* (as far as applicable to the Thai case; to be specified);
 - Model versions and results are systematically stored in the *Statistical Archive*.
- *Process the* information collected and analysed for purposes of budgeting/policy formulation.
 - Development and *maintenance of health (budget)* models for CSMBS, SSO, and NHSO/UC:

The models aim at short-, medium-, and long-term *projections* and simulations, mainly on an annualized data basis;

They will distinguish between acute care and the new issue on Thailand's social policy agenda: long-term care. It is obvious that no data are yet available that could form a basis for modelling long-term care. In other words, this part of the model(s) to be developed will be of a "generic" character applicable for costing purposes;

Models must be mainly demand-side driven (how many cases?), but also have a strong supply-side "leg" (capacity orientation: are the required number of carers available?);

Models allow for projecting and monitoring, on an annual basis, the financial statements of the providers (hospitals) related to CSMBS, SSO, and NHSO/UC at *individual provider level*;³

Permanent *updating* of the models with the statistical information collected;

Updating the models' structures according to *changes in legislation*;

Updating of the structure of models according to *changes in availability of statistical data*;

Tabular and graphical *presentation* of model results;

Explanation of model results;

Interpretation of model results;

Monitoring and assessment of national and international *modelling methodology* in health;

Monitoring and assessment of internationally *proposed developments in health policies* (as far as applicable to the Thai case; to be specified);

Model results etc. are to be stored in the Statistical Archive.

• Membership in modelling and policy working groups:

In order to *maintain* its *knowledge base* the FCG participates in national and international working groups that deal with modelling health; through participation in these working groups the *government of Thailand maintains its stakes and influence* in the national and international debate/discussion/ developments of health modelling and its possible repercussions on statistics, methodologies and policy;

With respect to policy formulation at national and international level, the FCG *contributes* the *model results* (projections, simulations) and their explanation and interpretation *to national and international working groups* dealing with health policy formulation.

- *Disseminate* the information collected, analysed and processed for purposes of policy information:
 - Regular systematic statistical information to the government/others;
 - Regular *systematic production of short-, medium- and long-term forecasts/ projections* of "the health system", predominantly its finances for budgeting purposes; addressee: government/others.
 - The FCG participates in government operational working groups on shortand medium-term policy planning (budget; public investments; general (social

 $^{^{3}}$ It is expected that FCG members, during the project, together with the ILO develop methods acceptable to all three institutions.

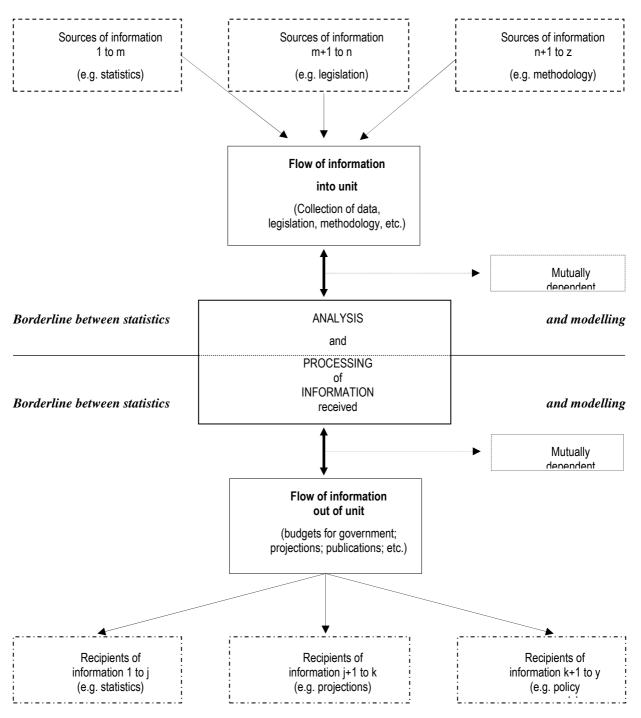
policy development plans; etc.) — participation may impact on the annual working routine of the FCG, and on those other working groups;

- Regular (annual) *publication* of statistical information on the three schemes, CSMBS, SSO, NHSO/UC (in Thai and in English);
- Making available *to other* interested *institutions* in *electronic format* the *statistical information* collected (i.e., to research institutes; universities; international organizations (WHO, OECD, ILO, others);

In order to perform its duties the FCG has to develop an annual (possibly multi-annual) work routine. Details will be developed later.

A formal structure of the FCG is provided in the following chart.

Structure of FCG



Notes (related to chart)

- 1 Inflow (collection) of information has to be organized among involved institutions, i.e., CSMBS, SSO, and NHSO/UC;
- 2 Analysis of information depends on information received, on analytical instruments available and on information requested by recipients;
- 3 Processing of information depends on information received, on analytical instruments available and on information requested by recipients;
- 4 Outflow (dissemination) of information (incl. periodical statistical publications) has to be organized.
- 5 The FCG would be advised to develop a matrix that shows the type of work to be done by the FCG over time, for example as indicated by the following blueprint (to be enlarged and filled):

Matrix of FCG activities during year

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Task 1	X	X	X		X	X		Х	X			
Task 2			X		X						x	
Task 3		X		X						X	x	x
Task n										X	X	x

(Matrix may be set up in more detail, by weeks 1 to 52.)

Matrix of FCG activities over several years (optional)

Activity	Y 1	Y 2	Y 3		Υt
Task 1	Z	Z			Z
Task 2			Z		z
Task 1 Task 2 Task 3		z		z	
Task n	Z	z	Z	z	z

6. Staffing of FCG

Six professionals: two from each scheme (CSMBS, SSO, NHSO/UC) = official working group.

The group members work on an equal basis; it may be advisable to give presidency (on a *primus inter pares* basis) of the group to CSMBS, SSO, and NHSO/UC, revolving annually.

Three information specialists/programmers; one to two additional support staff ("statistical clerks"); secretary. Total = 6 persons. These should be situated in a unit functioning as a support unit to the working group; terms of reference for each staff member to be specified in detail (two to three pages) only after the tasks and work flow of unit have been specified in detail.

The costs for the support unit of the working group should be equally shared between CSMBS, SSO, and NHSO/UC.

Annex. On modelling

The FCF/FCG, in order to fulfil its overall function (see para. below), has to go significantly beyond pure *financial* recording. It has to have a strong statistical component with respect to structural, *physical*, cost and other *data* (information) that allows for a comprehensive "explanation" of financial developments under CSMBS, SSO, and NHSO/UC. Without such information, FCF/FCG would just provide a set of financial time-series data (though mutually consistent), i.e., information proven too sterile for budget preparation and mid- to long-term health financial analysis. Thus, FCF/FCG will increasingly have to include many characteristics attached more systematically to so-called Social Accounting Systems (SASs).

The terms of reference (ToR) of the FCF/FCG describe complex activities comprising several elements.

First, the ToR means observing the development of financial and physical statistical information along the time frontier. In this case, monitoring takes place at the interface between past and future. As time passes, more and more statistical results are produced and time series emerge. (Only) time series allow for the assessment and interpretation of dynamic regularities, irregularities and other characteristics of observations.

Assessment and interpretation of results is usually based on formal, mainly statistical, procedures, and on *a priori* (theoretical, here: knowledge on the health legislation) knowledge. The results of interpretation lead to conclusions that can be used to formulate, more or less, formal models of "reality". Second, therefore, monitoring of finances means to employ formal models in order to make "good guesses" on the future. Financial implies undertaking regularly, in a revolving monitoring. thus. manner. forecasts/projections of the health system's finances. Models used for financial monitoring typically make use of the most recent statistical information available; they operate, so to speak, on the boundary of the process of statistics production. These results can be multiannual (typical: surveys), annual (typical: SNA), semi-annual, quarterly (SNA), monthly (typical: price indices; administrative (management) data), daily (typical: management data), or "continuous" (typical: financial markets). The periodicity of available data determines model design, however, inversely, the model design also determines which data can reasonably be used. A model based on annual data can make only limited use of monthly data. Monthly data may be useful if used — extra-modular — for the estimation of annualized estimates. At the statistical/modelling boundary, statistical short-term estimation techniques and "pure" model application interrelate with each other.

The quality of model performance very much depends on the quality of statistics and on the conclusions drawn from theory and statistics at the time the model was designed. More and better statistical information helps to improve model(s) and the quality of results produced. If financial monitoring aims to produce "good (budgetary) guesses" on the immediate or relatively close future, then model structures may have to lean heavily on monthly and/or quarterly statistical information (*short-term modelling*).

If the aim is to produce future mid-term financial results over a three to five year period, models based (solely) on annual data are most adequate. Experience shows that such models perform relatively well in terms of forecasts produced because model assumptions tend to solidly reflect prevailing behavioural inertia of socio-economic and financial actors. (*medium-term modelling*)

Contrary to prevailing perceptions, the aim of (socio-economic; financial) long-term models, stretching over periods of 50 years and more, is usually *not* to forecast future development of reality. The reason is that they systematically exclude the impact of

exogenous factors like technological innovations, political changes, environmental impacts, catastrophes etc. They do ignore such influences for many reasons; one core reason is limitations of knowledge and experience of model builders, another one, possibly, that no theory exists allowing for a conclusive modelling of the evolution of those events over time. At the same time, model builders are aware of the fact that for their long-term models to be "realistic" they would need to include such developments.

The consequence of such explicit exclusion of the mentioned model components is that the interpretation of the results of long-term models is much more "if-then" oriented. *If* the model structure is correct, and *if* the exogenous model assumptions are correct, *then* results can be expected. Long-term modelling results very much show the *present* inner structure of the (health) system modelled (of the model); long-term models are usually another way of showing the present structure, the present inner constitution of a system. If this interpretation of the results of *long-term modelling* is kept in mind, it does make sense to perform such modelling on a revolving, annual, basis.

Monitoring of the finances of CSMBS, SSO, and NHSO/UC within the FCF/FCG, thus, comprises permanent statistical analysis, permanent examination of the theoretical model(s) on the basis of the inflow of statistical information, and permanent "good guesses" on future development, keeping in mind the different interpretation of short-to-medium term and of long-term model results.

In this context, special care must be taken with respect to the resource allocation model(s) to be developed for NHSO/UC (and, possibly, SSO). Experience in health system finance monitoring around the world, indicates that striving for stability of such models might be in vain. Developments within the health sector, on the providers as well as on the purchasers side, are too dynamic (and unforeseeable) for anything like a stable model structure. Most probably, any resource allocation model (under a closed-end budget approach, as in Thailand), will have to be revised revolvingly within relatively short periods (every two to three years). Therefore, with respect to this modelling aspect of the project, the role of any such model will be reconsidered. One option is to use such a model as a basis for the annual negotiations between purchasers (SSO and NHSO/UC) and providers (hospitals) — without giving those model results a binding budgetary role.

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