Audit Committee, September 26th 2013

Near Miss Report 35

Executive summary and recommendations

Introduction

Following discussions at the Council on 4th July 2013 and the Finance & Resources Committee on 18th July 2013, the Chief Executive asked the Business Process Improvement Department to undertake an investigation under HCPC's internal Near Miss Report procedures.

This report has been provided to the Audit Committee to inform it of the HCPC's investigation into the matter of incorrect methodology being used to forecast registrant fee income. Aspects of the HCPC's internal investigation process are on-going and should be completed shortly. As a result, this document is drafted as an interim report and is subject to change. A final report will be issued on conclusion of the HCPC's internal process.

The report entitled **Near Miss Investigation Audit Report to Chief Executive (NMR35**) dated 17th September 2013 is attached as an appendix.

Near Miss Reports

Building on HCPC's existing corrective and preventive action processes under ISO 9001 certification, in December 2009 the Executive introduced an internal "Near Miss" investigation procedure.

The purpose of the internal Near Miss procedure is to ensure that a system is in place that enables all events to be reported, investigated and collectively resolved.

The Near Miss process is not designed to assign blame for errors, but is designed to help the organisation prevent recurrence. The output of the Near Miss process is a report delivered to EMT, which includes:

(i) possible changes to Quality Management Systems processes
(ii) possible changes to departmental guidelines or work-orders (standing instructions for small parts of processes), or
(iii) other structural changes to how HCPC conducts its work.

This is an essential part of the Corrective & Preventive Action elements of ISO 9001 quality management standard.

Benefits

HCPC's internal Near Miss procedure has allowed HCPC to:

i. Improve our culture
ii. Determine the root cause(s) of events
iii. Rectify any faults
iv. Improve practice and process
v. Prevent or reduce possibility of future occurrences
vi. Provide support to colleagues including training
vii. Reduce risk

Decision

The Audit Committee is asked to:

(i) Review and provide feedback on any of the detailed recommendations and related "EMT decision".
(ii) Provide feedback to the Executive on any further issues of additional actions that need to be implemented.

Background information

The **Registrant Numbers Forecast 2013-18**, **Registrant Income Forecast 2013-18** and a report from HCPC's internal auditors Mazars on the financial model used for forecasting registrant revenue was discussed in the Finance and Resources Committee on 10th September 2013.

Resource implications

None

Financial implications

None

Appendices

- Near Miss Investigation Audit Report to Chief Executive (NMR35)
- Description of registrant numbers forecast model
- Description of registrant income forecast model
- The FAST Standards
- Consultation on HCPC registration fees

Date of paper

17th September 2013

Near Miss Investigation Audit Report to Chief Executive (NMR35)

Incident Date	04/07/2013
Department or area impacted	Finance
EMT Sponsor	Greg Ross-Sampson
Auditor	Roy Dunn
Incident overview	Incorrect methodology used to forecast registrant fee income
Date of report	September 17th 2013
Report version	1.0 **(interim)**
This report has been provided to the Audit Committee to inform it of the HCPC's investigation into the matter of incorrect methodology being used to forecast registrant fee income. Aspects of the HCPC's internal investigation process are on-going and should be completed shortly. As a result, this document is drafted as an interim report and is subject to change. A final report will be issued on conclusion of the HCPC's internal process.	

Interim report

Contents Page

1. Description of event

The Health and Care Professions Council (HCPC) forecasts revenue derived from registrants and prospective registrants using two linked but distinct processes. Firstly, registrant numbers are forecast for the next five years by analysing numerous categories such as international applications and actual registrant number for each of the 16 professions. This process is managed by the HCPC Operations Department. The second stage in the process is to forecast revenue on a monthly basis for the next five years. The HCPC Finance Department manages this process.

Figure 1 **Five Year Planning Processes** attached for reference at the end of this report, overviews the planning process. The process is documented by the HCPC using the ISO 9001 methodology. A description of the Excel computer models is attached in Appendix i.

The process is complicated by the different renewal dates for each profession and the fee discount given to new graduates joining the HCPC register for the first time. Figure 2 entitled **New Fees Applied as Registration renewal cycle commences** is attached at the end of this report.

During the last exercise to update the revenue forecast undertaken within Finance the prescribed methodology described above was not used. Instead, revenue was forecast based purely on historic revenue. No account was taken of actual and forecast registrant numbers to forecast revenue.

No one within Finance informed the rest of the HCPC of the abandonment of existing documented processes.

In addition, the Finance Department, when they reviewed their colleague's revenue forecast did not go into enough detail to detect the change in the methodology being used, in that they reviewed consolidated revenue figures rather than examining and verifying the expected linkage between registrant numbers and forecast monthly revenue.

Another unexpected complication was that Finance's models that were used to forecast revenue were not stored on the Finance Department's shared group directory and not accessible to other members of the team. Instead it was stored on a "private directory" thus making it difficult for other team members to audit the work of their colleague during absence from the office during, for example, holiday periods. This was against HCPC's common practice for departmental work.

The income forecast presented to the Council on 4th July 2013 and the Finance and Resources Committees on 8th July 2013 were calculated without using the correct methodology.

A meeting took place with the Chief Executive, the Chair of the HCPC, the Chair of the Finance and Resources Committee and the Finance Director after

Internal report

the Finance and Resources meeting on 18 July as there was still continued concern about the relationship between registrant numbers and resulting revenue forecast. At this juncture following discussions with the HCPC Director of Finance it became clear that the Finance team were unable to demonstrate the linkage between their forecast and registrant numbers.

Subsequent to the meeting on the 18 July the forecasting process has been rerun as detailed in Section four of this report.

2. HCPC Impact

The HCPC Finance Director resigned with effect from the end of August. Although an Interim Director of Finance was appointed on 12th August 2013 following a competitive interview process, the work timetable of the Finance Department has been disrupted.

The *esprit de corps* of the Finance Department team has been adversely affected by the incident. It is now recovering.

The HCPC Human Resources Department has had to divert additional resource into unplanned processes.

The necessity for a review of all key HCPC Excel computer forecasting models has been created.

The public consultation published on 10 July 2013 on future HCPC fees did not include any revenue forecasts as the argument for a proposed £4 fee increase was based on rates of inflation. Therefore, the document did not have to be republished. This document is in appendix iii for completeness.

3. Ancillary issues determined during this investigation

A clear message to all existing and new HCPC employees of the importance of using established processes must be reinforced.

Key spread sheets used for budgeting, forecasting and planning should be complemented by a narrative document, indicating how the model works including assumptions.

4. Items already implemented based on the incident considered here.

Throughout the process the Chair of the HCPC and the two Chairs of the Audit Committee and the Finance and Resources Committee were briefed on developments. In addition, meetings were arranged to review work in progress. Our external auditors the National Audit Office (NAO) and Mazars our internal auditors were also briefed on the event.

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The Registrant Numbers Forecast 2013 – 18 Excel forecasting model was updated and revised by the Operations Department to reflect the latest operational information such as timing of the opening of new registers for aspirant groups.

Using the updated and revised Registrant Numbers Forecast, the Registrant Income Forecast 2013 – 18 Excel financial model was revised and updated by the Finance Department to include three months actual income.

HCPC's internal auditors, Mazars, were commissioned by the Chief Executive to review and report on both operational and financial models used by the HCPC to forecast revenue derived from registrants and prospective registrants. The Mazars work was undertaken by a specialist team rather than the individuals who work on the HCPC internal audits.

The process adopted by Mazars was in essence for them to independently build their own Excel computer model using the assumptions used by the HCPC. The majority of the work was undertaken overnight, allowing for a rapid delivery of the exercise within eight working days. The Mazars and the HCPC models were then compared to one another and any discrepancies were identified as separate comments for further clarification, examination or correction. There were a total of 68 comments. None of the comments were graded One, which would have represented a "potential error which may require a material model adjustment". All comments have now been cleared and closed.

The report from Mazars entitled **HCPC Business Model Review Final Report** was received by the Executive on 30 August 2013.

The three documents, the **Registrant Forecast 2013 – 18**, the **Registrant Income Forecast 2013 – 18** and the Mazars' report entitled **HCPC Business Model Review Final Report** were presented to the Finance and Resources Committee on 10 September 2013.

FAST Standard model

Mazars in their report made a number of recommendations to the HCPC relating to the future use of "best practices" for constructing financial and operational models. In particular, they drew to the attention of the Executive the existence of an organisation called FAST (see www.fast-standard.org), which has drawn-up a set of standards that can be used when undertaking operational or financial modelling. FAST stands for "Flexible, Appropriate, Structured, Transparent". A copy of the FAST Standards are attached in Appendix ii for reference.

The Executive has decided to incorporate the FAST standards initially in the registrant numbers forecast model and the registrant income forecast model and subsequently in other key models such as the operational model used by the Fitness to Practise Department and the Five Year Plan. Training will be commissioned for key employees. Any training costs will be financed from within existing budgets.

Interim report

The Interim Director of Finance on appointment is undertaking a review of key processes managed by the Finance Department. To date no issues have been identified.

The process to appoint a permanent Director of Finance has commenced. The process is expected to lead to an appointment by start of December or early 2014.

The Interim Director of Finance is undertaking a review of the commitments to Internal and External Auditors recommendations. A written report will be brought to the next Audit Committee on 28th November 2013.

5. Lessons to be learned

All employees should be briefed about this incident by the Chief Executive at planned All Employee Meetings to reinforce the critical importance within the HCPC as a statutory regulator of adhering to documented processes.

All new employees attend an induction with department heads. As part of the induction process, all new employees meet the Chief Executive. This meeting should incorporate the message of the importance of using established processes.

Key Excel models must be stored centrally for potential use by all relevant employees in a particular HCPC Department so that they are accessible and usable when key users are on holiday or on occasions when they are not in the office.

When models are protected using passwords a method must be adopted that allows access by other employees in the Department.

Consideration should be given to simplifying the registrant renewal timetable. Two changes could be made. Firstly, the renewal cycle could be spread over three years rather than two years thereby significantly reducing the work load in the registration department. Secondly, renewal dates could be moved to different months in the year to avoid the period when new graduates apply to join the register and avoid public holidays such as the New Year when employees are more likely to be on holiday. This simplification would make fee calculation considerably less complicated. This work should be undertaken when the project to review the existing registrant system is undertaken probably starting in the Financial Year 2014 – 2015.

Consideration should be given to either simplifying or discontinuing the reduced fees that new graduates pay the HCPC. This simplification would make fee calculation considerably less complicated. This work should be undertaken when the project to review the existing registrant system is undertaken probably starting in the Financial Year 2014 – 2015.

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6. Changes to existing HCPC or Suppliers practise (includes already implemented and to be learned)					
Recommendation Number	**Findings**	**Detailed Recommendation**	**Management Response**	**EMT Decision**	**Decision & Implementation Date**
1.	Adopt FAST Standard	Build capacity within HCPC to use FAST standards	Agreed	Train at least three employees	January 2014
2.	Implement FAST across key excel models	• Registrant Numbers Forecast • Registrant Income Forecast • FTP model • Five year plan	Agreed	No decision required. Will be implemented.	February 2014 for Registrant Numbers and Income Forecasts
3.	Chief Executive briefing all existing employees about the situation and reinforcing the importance of adhering to documented processes	All employees should be briefed about this incident by the Chief Executive at planned All Employee Meetings to reinforce the critically importance within the HCPC as a statutory regulator of adhering to documented processes.	Agreed. This briefing will be conducted at the next all employee meeting in November 2013.	No decision required. Will be implemented.	November 2013
4.	Chief Executive briefing new employees on the importance of adhering to established processes	As part of the HCPC induction process, all new employees meet the Chief Executive. This meeting should incorporate the message of the importance of using established processes.	Agreed. All new employees will be briefed by the Chief Executive.	No decision required. Will be implemented.	September 2013
5.	Store all key models centrally for department-wide access	Key Excel models must be stored centrally for potential use by all relevant employees in a particular HCPC Department so that they are accessible and usable when key users are on holiday or on occasions when they are not in the office.	This is already a HCPC-wide common practice. Consideration should be made to formalise this in each department, where appropriate.	No decision required. Will be implemented.	September 2013
6.	Password protection	When models are protected using passwords a method must be adopted that allows access by other employees in the Department.	A mechanism for secure departmental storage of passwords will be required.	Should this be adopted?	November 2013

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7.	Consideration to simplify the registrant renewal timetable	Consideration should be given to simplifying the registrant renewal timetable. Two changes could be made. Firstly, the renewal cycle could be spread over three years rather than two years thereby significantly reducing the work load in the registration department. Secondly, renewal dates could be moved to different months in the year to avoid the period when new graduates apply to join the register and avoid public holidays such as the New Year when employees are more likely to be on holiday. This simplification would make fee calculation considerably less complicated. This work should be undertaken when the project to review the existing registrant system is undertaken probably starting in the Financial Year 2014 – 2015.	This will be considered as part of the registration system review project. This recommendation will require a change in HCPC's statutory rules.	This project is currently scheduled to start in financial year 2014 – 2015. It will need to go through the budgeting process, project prioritisation process for 2014 – 2015 and Council approval .	2014
8.	Consideration to either simplify or discontinue the reduced fees for new graduates	Consideration should be given to either simplifying or discontinuing the reduced fees that new graduates pay the HCPC. This simplification would make fee calculation considerably less complicated. This work should be undertaken when the project to review the existing registrant system is undertaken probably starting in the Financial Year 2014 – 2015.	This will be considered as part of the registration system review project. This recommendation will require a change in HCPC's statutory rules.	This project is currently scheduled to start in financial year 2014 – 2015. It will need to go through the budgeting process, project prioritisation process for 2014 – 2015 and Council approval.	2014

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7. Root cause analysis

ROOT CAUSE AT HCPC	ROOT CAUSE WITH APPL / REG	UNASSIGNABLE		HCPC - Human Error, requires training	HCPC- Equipment or software failure	HCPC-Lack of resources	HCPC- Supplier error	HCPC- Process failure, or lack of complete process	Other
X				X					

8. Implementation timetable

	Proposed date	Validation of change
Near Miss Report issued	September 2013	
Analysis of proposed fix and cost estimate obtained	No external costs	
Financial allocation for remedial work	Required training from existing budgets	
Work or changed scheduled for	Autumn/Winter 2013	
Work to be completed by	Income model updated August 2013	
Schedule dependencies (eg lapsing dates etc)	Need to be in place prior to the 2014-15 draft budget being presented to Council in February 2014	

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Figure 1 Five Year Planning Process

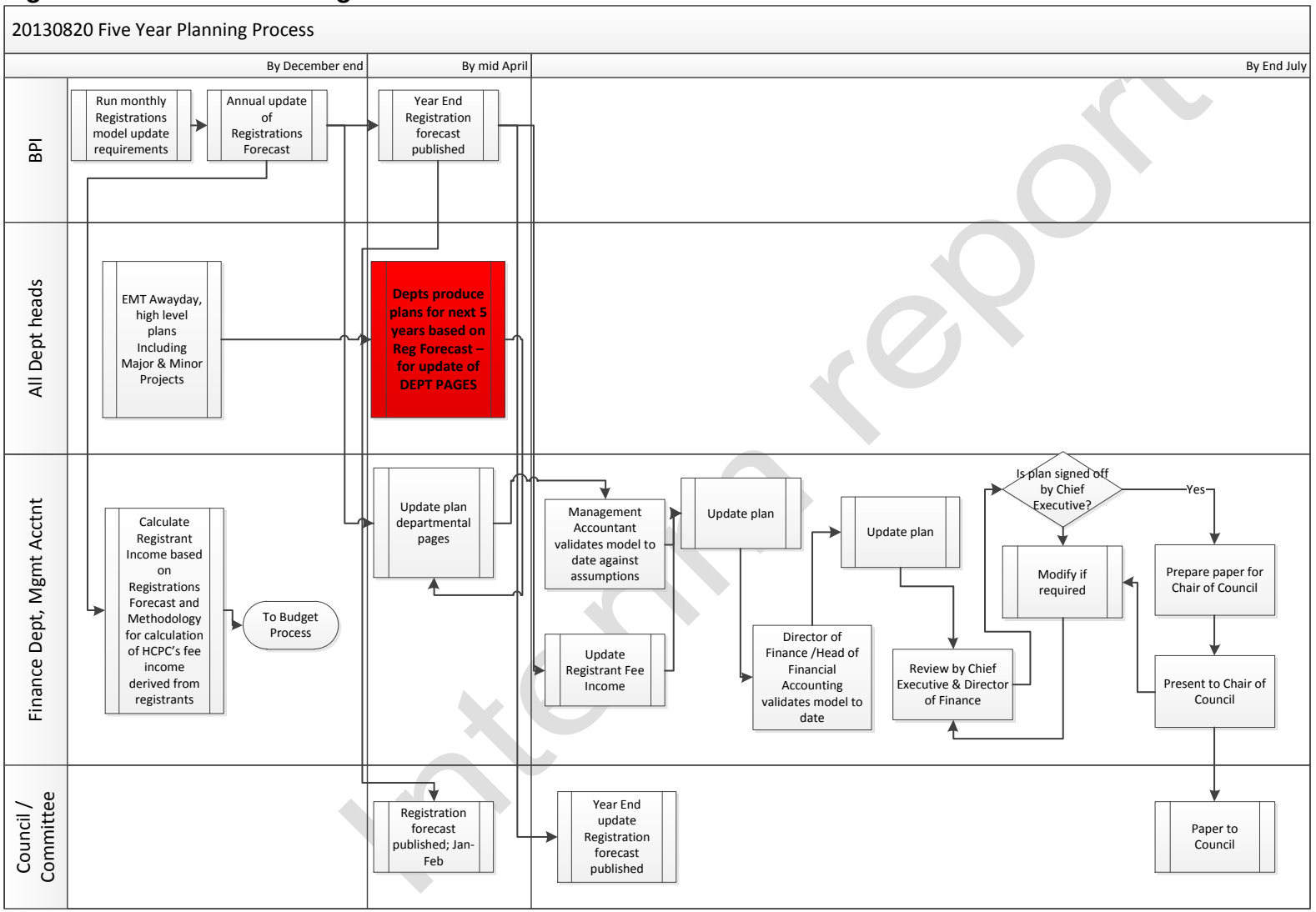

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Figure 2 New Fees Applied as Registration renewal cycle commences

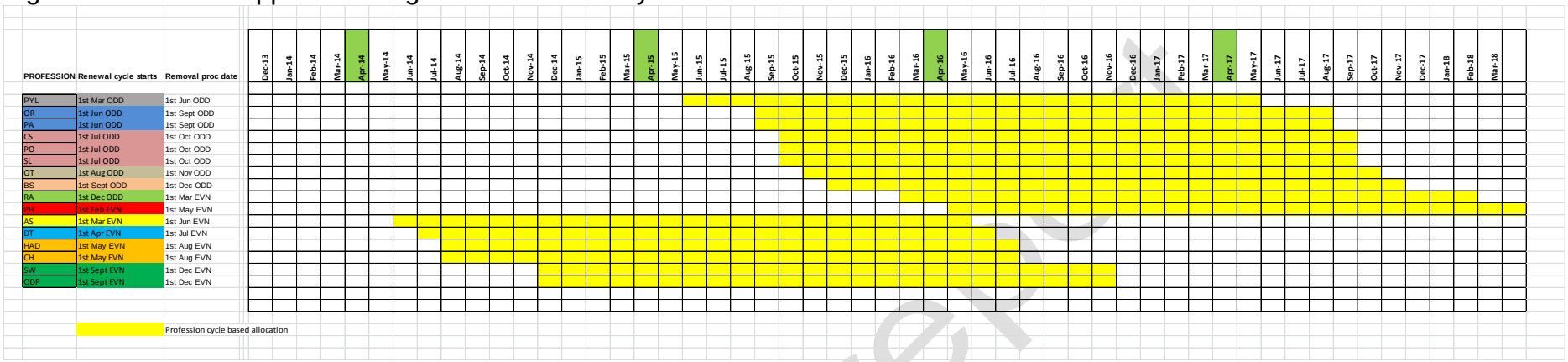
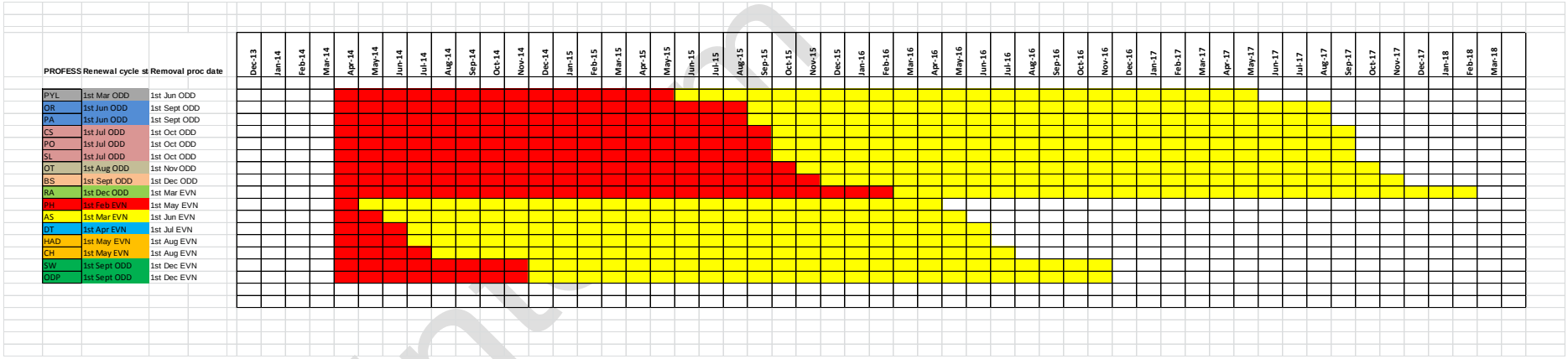


Figure 3 Possible short fall in new fees realisation in incorrect papers (charging new rates from April 1st 2014)



Interim report

Methodology for Calculation of HCPC's Registration Numbers Forecast

Version 1.3
16 September 2013
R P Dunn

Contents

The HCPC Registration Numbers Forecast is based on historic information projected forward, the latest information available from stakeholders, and announcements from government concerning the regulation of new groups of professionals.

HCPC has the most useful store of historic data around the majority of our professions, and is the first stop for government, professional bodies and other agencies with requirements for this type of data.

The creation of the Registration Numbers Forecast is part of the Quality Management System. This process is reproduced at the end of this document in the Appendix.A

Key assumptions

These assumptions impact the whole of the plan, and indicate any generalisations used. We aim to only place the assumptions detail in one location in the plan wherever possible.

Number of registrants

This sheet represents the overall movement of registrants at the end of the financial year. Note that professional cycles can overlap up to three financial years. The calculation is as illustrated below.

Total number of Registrants = Previous year + 'UK registrations' + 'International registrations' – Removals + Readmissions

New professions – transfer of voluntary (or statutory) register.

The transfer of new professions to regulation by HCPC is initiated by government, or potentially the Council itself, following a process of assessment. The current government has indicated that it is less inclined to increase the level or spread of statutory regulation except where absolutely necessary.

The timetable for transfer from either professional body voluntary register or other statutory regulator is governed by the rate that legislation can be drafted and run through the required processes of the departments of health in the home countries, and government timetables.

This makes the timescales very difficult to project more than two years out.

The number of new graduate or international applicants for new professions predicted is usually based on a low level of information provided from a number of sources, including government and professional bodies.

Typically the date of new profession on boarding has been designed to fit in with existing profession renewal cycles, to flatten out / manage workloads in the Registrations department, and fit in with legislative timetables.

The on boarding / transfer may be coincident with the commencement of a period of grandparenting for between two, or occasionally three, years.

New registrations - UK route

These new registrants have generally recently completed an approved UK course, so the application process is rapid, and the main reasons for non registration will be lack of suitable identity documentation or an FTP related event. Therefore we do not produce an “Applications” page and a “Registrations” page for this route.

Typically the recent graduates apply within the first year of graduation, often over the summer months. The peaks and troughs for each profession have been determined by averaging the applications over the last five years. This enables the finance dept to budget for each future month over the next five years of the forecast.

Non recent UK graduates (over two years since graduation) also apply, but the timing of such applications is entirely unpredictable, and are small in number. These UK applicants pay the full scrutiny and registration/renewal fees.

We generally assume there is a 4% decrease in registerable output from UK programmes for existing professions year on year. This on-going decrease can be monitored and be adjusted for relatively easily, should it be required. This value is broadly supported by external stakeholders.

Previous year (UK applications) X 96% = projected UK graduate registrations

For the UK graduate output in 2013-14 financial year, we have had additional information from some internal and external stakeholders that some professions will be impacted by an additional one off 10% drop in funding. However funding decreases of 10% may not equate directly to a 10% drop in graduate output. However, as an organisation we have decided to be prudent in our approach, and aim not to be too bullish in our projections.

New applications - International route

As constraints on funding in the UK health sector continues the number of available positions or options for employment are assumed to decrease.

However, health and care professionals from around the world still apply for HCPC registration. This has possibly been maintained by the impact of macro-economic factors and country specific lack of employment prospects globally.

The number of International applications are assumed to be equal to the latest actual numbers of applications received and successfully processed. (a small but consistent number of international applications are returned to applicants where it is very obvious that we do not regulate their profession, or they would not meet our criteria as applicants).

The number of International applicants is projected to decrease by 10% per financial year, for forecasting purposes. As HCPC costs of these applications

Previous Year Actuals X 1 for budget year

Then

Budget year x 90% = projected international applications year 1

Then

year 1 x 90% = projected international applications year 2

New registrations – International route

After the assessment of the application, and verification of the identity of the individual, and payment of the registration fee, the applicant can be registered.

This causes a time lag between increases or decreases in applications vs. increases or decreases in registrations. Typically international registrations are slightly lower than international applications due to time lag effects, but this may not always be applicable.

The number of International registrations is projected to decrease by 10% per financial year, for forecasting purposes.

Previous Year Actuals X 1 for budget year

Then

Budget year x 90% = projected international applications year 1

Then

year 1 x 90% = projected international applications year 2

etc

New applications - Grandparenting route

Assumptions around new profession grandparenting will be listed where known. However totals likely to apply via grandparenting are

currently very poorly constrained. Where a new profession is considered likely to commence regulation with HCPC half way through the financial year, the second year of grandparenting will stretch into a third financial year. When timescales are better constrained, a similar process to the month by month by profession approach will be used as with international route applications, based on the phasing determined from the Appendix 5. Grandparenting model phasing based on two year windows.

New registrations - Grandparenting route

Prediction of registrations from grandparenting routes are less well constrained than international routes, as each new profession is likely to have very different characteristics such as sequential application to new modalities or divisions, or other idiosyncrasies that impact application processing time scales. Month by month predictions over future years are yet to be attempted.

Removed

The calculation of "Renewal rates" (the inverse of Removal percentages).

HCP and HCPC continuously monitor the rate at which groups of professionals maintain payment of their appropriate fees, and sign the appropriate declarations and submit to CPD audit.

These data are presented in the graphs in the appendix indicating Removal and Readmission within 6 months.

The percentages applied are as follows;

Removals in a "Renewal year" are averaged to be 5%.

This will include these removed at the end of the professional cycle, and a small number either removing themselves voluntarily through the voluntary removal process, and any intermediate removal process around lack of fees paid.

Removals in a "Non-Renewal year" are averaged to be 2.5%.

This group of registrants typically includes those retiring, moving to other countries long term or accidentally being removed from the register due to failure to pay.

Readmissions

A number of registrants are removed due to failure to adhere to the prescribed processes, and are subsequently allowed to readmit without additional fees within 1 month, or after readmission fee payment, plus the appropriate registration fees. These numbers are monitored for six months following every cycle based removal event. We typically allow for a 2.5% rate of readmission over this period. This also allows for those that have left the register in previous registration cycles, and have subsequently been readmitted to the registers.

A relatively small number are subsequently readmitted having re-established an on-going payment. We use 1.25% for these readmissions. With very small professions, the impact of percentages can result in apparently incorrect calculations due to rounding errors. For example 120 – 3 = 116. We occasionally therefore use 1% for readmissions for some very small professions.

Removed registrants less readmissions

This is simply the sum of the profession by year Readmissions, subtracted from the profession by year Removals

Applications received for the register of visiting European Health Professionals

The numbers of applications via this route are being monitored outside of the NetRegulate system. No income is obtained via this route (zero cost to the applicant) and there is no knowledge of how long the Temporary or Occasional professional is working within the UK for**.** Renewal notices are sent to those that may be working at the end of a year, but again no revenue is predicted from these professionals.

Appendix 1 List of acronyms

No comments

Appendix 2 UK route application & registration monthly phasing

Monthly application timing predictions

The UK application route is continuously monitored, and we are able to determine the number of applications received per month for each profession.

These data have been tabulated with a financial year base line, and plotted onto graphs for five years of applications, again with data presented in financial years. The mean number of applications has also been determined per month over the five years of analysis, for instance

(Year 1 April + Year 2 April + Year 3 April + Year 4 April + Year 5 April) / 5)

The number of applications per month is used to create a monthly weighting "multiplier" which when used in conjunction with the predicted annual number of applications for each of the forecast years creates month by month predictions of UK applications for each profession. Thus a table of budget year, plus five future years (Years 1- Year 5 in the document) is populated for each profession. This table is used by the Registrations Income Forecast to predict the monthly timing of UK route scrutiny fees and renewal fees.

Appendix 3. International route application phasing (scrutiny fees)

Monthly application timing predictions

The International route is continuously monitored, and we are able to determine the number of applications received per month for each profession.

These data have been tabulated with a financial year base line, and plotted onto graphs for five years of applications, again with data presented in financial years. The mean number of applications has also been determined per month over the five years of analysis, for instance

(Year 1 April + Year 2 April + Year 3 April + Year 4 April + Year 5 April) / 5)

The number of applications per month is used to create a monthly weighting "multiplier" which when used in conjunction with the predicted annual number of applications for each of the forecast years creates month by month predictions of international applications for each profession. Thus a table of budget year, plus five future years (Years 1- Year 5 in the document) is populated for each profession. This table is used by the Registrations Income Forecast to predict the monthly timing of International route scrutiny fees.

Appendix 4. International route registration phasing (international renewal fees)

Monthly registration timing predictions

The International route is continuously monitored, and we are able to determine the number of completed registrations per month for each profession over time.

These data have been tabulated with a financial year base line, and plotted onto graphs for five years of registrations, again with data presented in financial years. The mean number of registrations has also been determined per month over the five years of analysis, for instance

(Year 1 April + Year 2 April + Year 3 April + Year 4 April + Year 5 April) / 5)

The number of registrations per month is used to create a monthly weighting "multiplier" which when used in conjunction with the predicted annual number of registrations for each of the forecast years creates month by month predictions of international registrations for each profession. Thus a table of budget year, plus five future years (Years 1- Year 5 in the document) is populated for each profession. This table is used by the Registrations Income Forecast to predict the monthly timing of registration fees.

Appendix 5. Grandparenting model phasing based on two year windows

There are currently no grandparenting routes available, although additional division / modality applications are currently completing assessment following submissions by Practitioner Psychologists at the end of the three year Grandparenting window.

Typically grandparenting windows are open for two years, (as with the original 12 professions at the opening of the HCP registers in 2003). These applications were tracked by profession and application month.

We have used these data to create model profiles of applications through idealised two year grandparenting windows. There is slight variation between professions historically, but the essential facet of the profile is a major peak, at the end of the grandparenting window.

This will be applied to any new professions where significant numbers of grandparenting applications and subsequent registrations are possible.

Appendix 6. Profession renewal periods

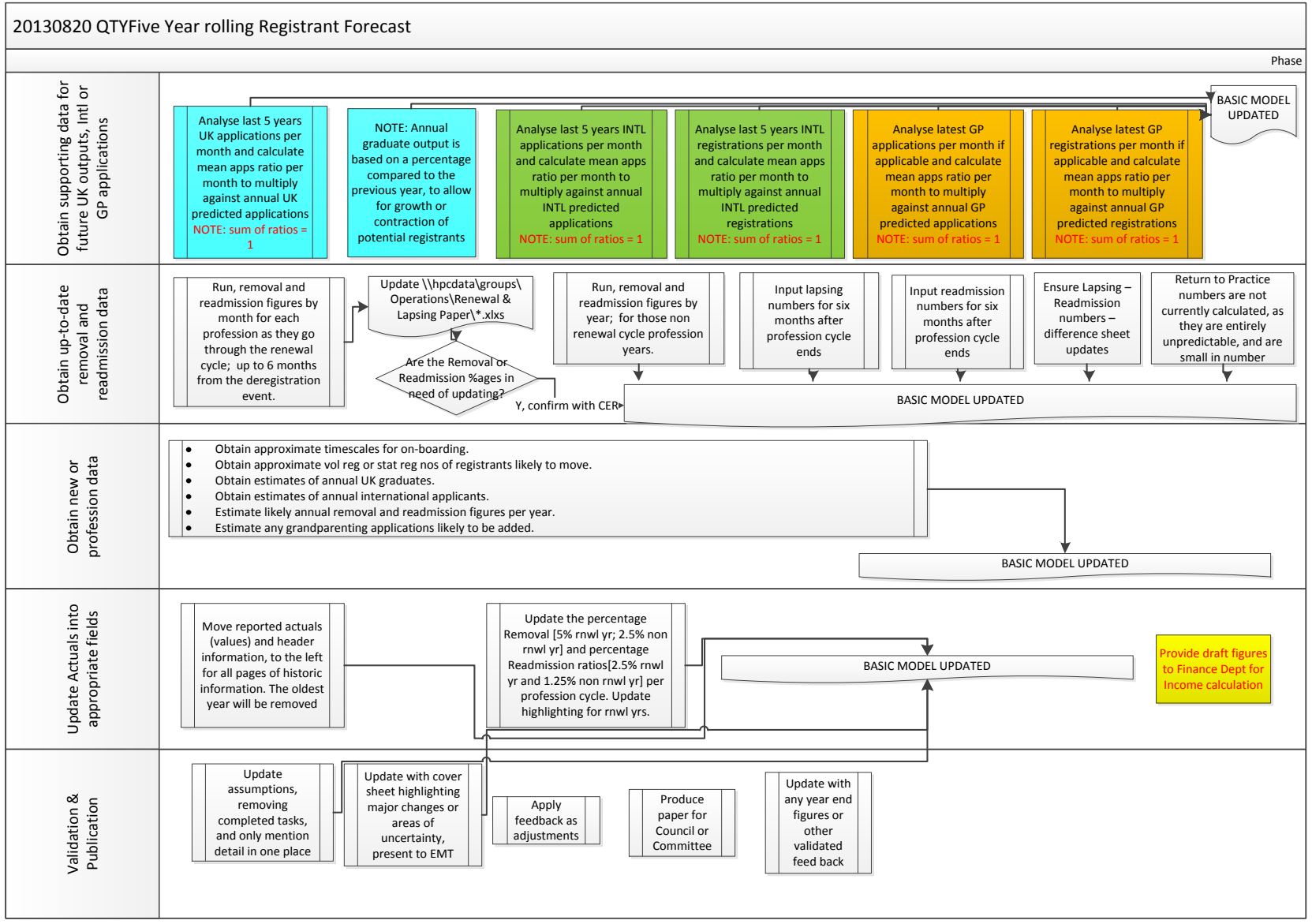
This diagram indicates when each profession is in "renewal" for either odd or even years. Renewal commences with an extract process for selection of those for random CPD audit. An additional extract report produces files for reminders to registrants that the online renewal service is available for their registered profession. Three months later the renewal window closes for the profession.

An additional illustration of the renewal process is presented at the end of this document, indicating the actions around invitation to renew, removal, and invitation to readmit.

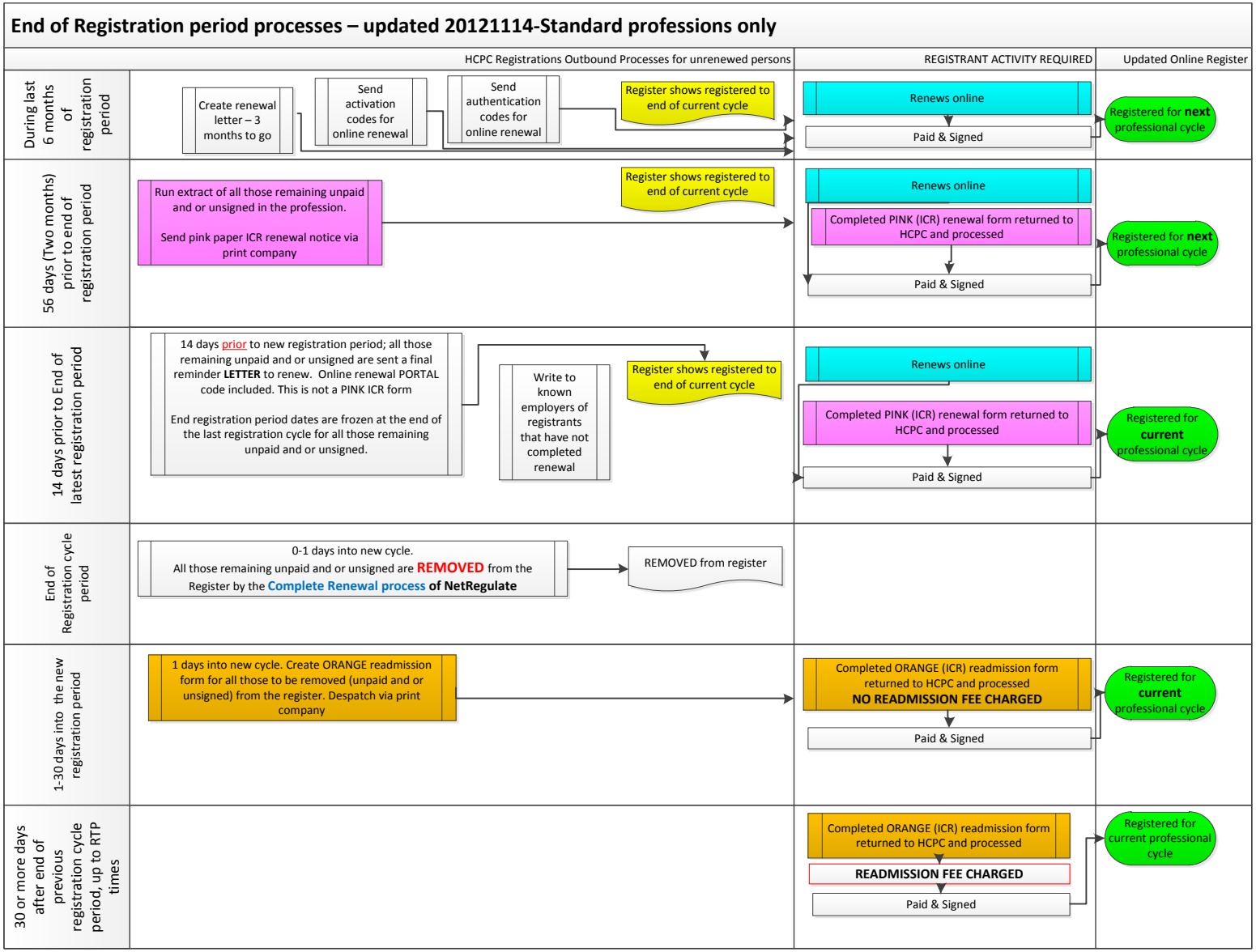
Appendix 7. 2 year registration cycle by profession

This diagram simply illustrates the proposed level of fees to be charged for each profession over the following years of the Registration Numbers Forecast.

Appendix A Five Year rolling registrant forecast



Appendix B End of Registration period process



Methodology for calculation of HCPC's fee income forecast

Version 2
13 September 2013
Charlotte Milner

Contents

This document details the methodology used for calculating the 5 year income forecast. It does not detail how actual deferred income and income are calculated on a monthly basis, our charging approach on NetRegulate or how we calculate our income cash flow forecasting.

Introduction

Applicants can apply to join HCPC registers at any time, peak UK applications occur over the summer months following completion of UK training courses/programmes.

All applicants for registration pay a scrutiny fee. The amount of the fee depends on the route of application. UK Graduate, International and Grandparenting scrutiny fees exist.

A readmission fee will be charged if a registrant is removed from the register for more than a month and applies to re-join the register at a later date.

Recent (UK) graduates applying for registration (within 2 years of graduation) receive a 50% discounted registration fee for at least two years. Depending on the exact time of application and registration with respect to the professional cycle, some may receive up to thirty-six months discounted fees. Up to 6 months of registration will be given free, for those recent graduates joining a professional cycle shortly before the current cycle ends.

In order to smooth out the processing of subsequent renewals, professions are allocated specific renewal cycles throughout two year periods. The professional cycles are as follows;

- **Arts therapists** 1 June – 31 May (even years)
- **Biomedical scientists** 1 December – 30 November (odd years)
- **Chiropodists and podiatrists** 1 August – 31 July (even years)
- **Clinical scientists** 1 October – 30 September (odd years)
- **Dietitians** 1 July – 30 June (even years)
- **Hearing Aid Dispensers** 1 August - 31 July (even years)
- **Occupational therapists** 1 November – 31 October (odd years)
- **Operating department practitioners** 1 December – 30 November (even years)
- **Orthoptists** 1 September – 31 August (odd years)
- **Paramedics** 1 September – 31 August (odd years)
- **Physiotherapists** 1 May – 30 April (even years)
- **Practitioner psychologists** 1 June – 31 May (odd years)
- **Prosthetists/orthotists** 1 October – 30 September (odd years)

- **Radiographers** 1 March – 28 February (even years)
- **Social workers in England** 1 December – 30 November (even years)
- **Speech and language therapists** 1 October – 30 September (odd years)

Renewal fees are paid either two years in advance by cheque or credit/debit card. Alternately registrants can set up a direct debit with the HCPC and pay they renewal fee in six month instalments.

New registrants joining the register must pay a year in advance. New graduate registrants joining within six months of their renewal date get this period free. (Therefore may get up to a six month free period.) Registrations are inserted into the current professional cycle unless deliberately deferred at the request of the individual.

Fees and fees increase

The proposed fees can be found on page 3 on the income forecast.

The fee increase increases on the 1st April every second year. All new applications pay the new fee from 1 April, as do all new registrants joining the register.

Existing registrants pay a new fee when their profession enters the renewal cycle following on from a fee rise. In some cases, a registrant may not get the fee increase until 24 months later after the fee has increased.

All applicants pay any new fee level in force at the time of their application. The professional cycle they are entering does not postpone the implementation of higher charges for these new applicants.

Scrutiny (Application) Fees

There are three types of scrutiny fees;

1. International
2. Grandparenting
3. UK Graduate

International – Applications (page 18 on Income forecast)
From the **Registration Numbers Forecast (page 10)** take the annual forecast of International applications.

Multiply annual profession specific International Applications by the scrutiny fee for that year to calculate fees for each month by profession**.**

Grandparenting – Applications (page 22 on Income forecast)
From the **Registration Numbers Forecast (page 14)** take the annual forecast of Grandparenting applications.

Multiply Grandparenting Applications by the scrutiny fee for that year to calculate fees for each profession.

UK graduate – Applications (page 16 on Income forecast)
From the **Registration Numbers Forecast (page 8)** take the annual forecast of UK Graduate applications.

Multiply UK Graduate Applications by the scrutiny fee for that year to calculate fees for each profession.

Readmission Fee

(page 24 on income forecast)

When a registrant fails to renew their registration at the end of the three month renewal period they are removed from the register.

If they apply to re-join the HCPC register within a month of removal they will not have to pay a Readmission fee.

If they apply to re-join the HCPC register after a month of removal they will have to pay a Readmission fee.

To calculate fee revenue an assumption has to be made about the number of registrants who will readmit within the month following removal.

From the **Registration Numbers Forecast (page 20)** take the annual forecast of Readmission applications.

Multiply the number readmission by the readmission fee for that year and then Multiply this for by the percentage of registrants who readmit after one month of removal.

It is assumed that all fees are generated between months 2 and 6 of the first year of the profession cycle, following the removal process.

Any readmissions in the second year of a registration cycle are of a smaller quantity and typically spread over the second profession year.

Recent UK Graduates Registration

(page 14 on income forecast)
These are graduates who are joining the register within 2 years from graduation.

To calculate the number of Graduates each month who will not be paying 100% of the annual renewal fee. Use the spread sheet Graduate Income.xls and the Registration Numbers Forecast UK route application and registration monthly phasing sheets for each profession. To predict when different groups of Recent Graduates will pay discounted renewal fees or full renewal fees.

Recent Graduates include **four** distinct groups:

1) Graduates who join the register during the year and will receive a discount in future years. This is calculated by applying the monthly phasing value to the annual new UK registrations.

2) Graduates who have joined the register in previous years and will receive a discount during all or part of the forecast year.

3) Graduates who have previously joined the register in a proceeding period but will pay the full annual registration fee during the year.

4) Graduates who join the register 1 to 6 months before their profession pays the annual registration fee and pay NO registration fee for their first 6 months of registration. By reference to the dates of the Professional Registration cycles and ““monthly weighting”” for UK route registrations, the number potentially enjoying 1 – 6 months of free registration prior to the end of each professions registration cycle can be calculated.

Once the number of registrants has been identified in each of the groups above, this can be multiplied by the registration fee for the year (50% of the renewal fee). This gives the total UK Graduate registration income by profession.

Once the graduates have received the full period of a discount rate, they are included within the renewal fee calculation.

Non Recent Graduates

Non Recent Graduates are those that completed their UK approved course over two years ago.

Non Recent Graduates are required to pay a UK scrutiny fee upon application. There is no discount on renewal fees for these applicants. This is considered to be a very small

percentage of UK route applicants, and for calculation purposes they are included in the New Registrations UK route figures.

All applicants pay any new fee level in force at the time of their application. The professional cycle they are entering does not postpone the implementation of higher charges for these new applicants.

International Renewal Fees

(page 20 in income forecast)

An International registrant joining the register pays a full year fee and the whole year fee is recognised, regardless of when they join the register in that year.

For the professions which have the renewal dates in even years (14/16/18):

1. Arts Therapists (Jun'14)
2. Chiropodists (Aug'14)
3. Dieticians (Jul'14)
4. Hearing Aid Dispensers (Aug'14)
5. Operating Departmental Practitioners (Dec'14)
6. Physiotherapists (May'14)
7. Radiographers (Mar'14)
8. Social Workers (Dec'14)
9. Public Health Scientists (Aug'14)

A full renewal fee is applied for income calculation on the registrations before the respective renewal dates (This can be referred to as 'Registrants pay a full year renewal fee on joining on the register'). Take the months from the **registrant numbers forecast (Page 36-40)** and multiply by the renewal fee for that year.

And, for the total number of international registrants in that particular year (after the renewal date) the number of registrants is transferred to the renewal calculation. This is taken from the **registrant number forecast (page 36-40)** for the month's after the renewal date.

For rest of the professions:

1. Biomedical Scientists (Dec'15)
2. Clinical Scientists (Oct'15)
3. Occupational Therapists (Nov'15)
4. Orthoptists (Sep'13)
5. Paramedics (Sep'13)
6. Practitioner Psychologists (Jun'15)
7. Prosthetics & Orthotics (Oct'15)
8. Speech & Language Therapists (Oct'15)
9. Healthcare Practitioners (Apr'15)

For these professions, a full renewal fee is applied for income calculation on the registrations before the respective renewal dates. (as they pay a full year renewal fee on joining the register). For the total registrants for that particular year renewal fee is charged for the renewal period fraction on the 'International Renewal' sheet itself.

Registrants are renewed in a 2 years time span, the registrants for the first year are charged with renewal fee according to renewal period fraction until the renewal date on the 'International Renewal' sheet. Therefore take the months from the **registrant numbers forecast (Page 36-40)** and multiply by the renewal fee for that year.

Registrants who join the register in before the renewal date, of year 2, a full renewal fee is charged for the calculation (as they pay a full year renewal fee on joining the register).

And, for the remaining period of the financial year of Year 2 after the renewal date (from December 2015 to March 2016)the renewal fee on the Year 1 registrants is charged in the ‘Current Renewal No’s’ sheet using renewal fraction (4/12 = 0.33).

Renewal Fee Calculation

This calculation is done on the renewal income calculations sheet in the income forecast. (page 10)

For each profession in the financial year; the renewal calculation is split into two fractions, before renewal date calculation and after the renewal date calculation. Also, there is a different calculation for the year in which a profession starts its renewal cycle.

Renewal fractions

The renewal fraction is the number of months either before or after a professions renewal date. The total of the two fractions adds up to 12 months (the financial year).
For example, biomedical scientists have a renewal date 1 December. Therefore, their before renewal fraction is 8/12 and their after renewal fraction is 4/12.
The renewal fractions are required to be calculated, as the profession renewals cycles do not follow the financial year dates (1 April to 31 March)

Before renewal date calculation
Take the total number of registrants at the end of the previous year (year 1 take the final year 0 total from the **registrant number forecast (page 4)**. For the remaining year 2-5 take the carried forward figure from the renewal income calculations sheet).

Multiply this brought forward figure by the renewal fee and then multiply by the renewal fraction before renewal. This will give you the renewal income before the renewal date.

In year 1 the brought forward number of registrants you also need to deduct the number of graduates in that year taking a discount renewal fee (from graduate income.xls spread sheet)

After renewal date calculation
Take the total number of registrants from the brought forward calculation
add: International registrants **((international renewal income, income forecast (page 20**))
add: UK Graduates no longer taking a discounted renewal fee (**graduate income.xls) (only in a renewal year)**
minus: registrants who are removed during the year (from the **registrant number forecast (page 18**)
add : number total number of readmissions during the year (from registrant number forecast(**page 20)**
equals : total renewals to carry forward

To calculate the income after renewal date, take the total renewals to carry forward, multiply by the renewal fee and then multiply by the after renewals fraction.

For Readmission renewals, their annual renewal fee applies for 12 months and they do not receive a reduction of their renewal fee.

For the total renewal income for year add the brought forward renewal income and carried renewal income to the international renewal income.

Returners to Practice

Some deregistered-registrants re-join the register after a long period after they have left the register.

They are excluded from the Readmission calculation.

It is assumed that this small unpredictable number is comparatively so small compared to the total size of the registers, that the financial impact is negligible.

The revenue is therefore not calculated separately.

Temporary EU Register

Pay no fees

Those transferring to the HCPC register are not forecasted but are assumed to be included in International applications. The usual (International) scrutiny fees are charged.

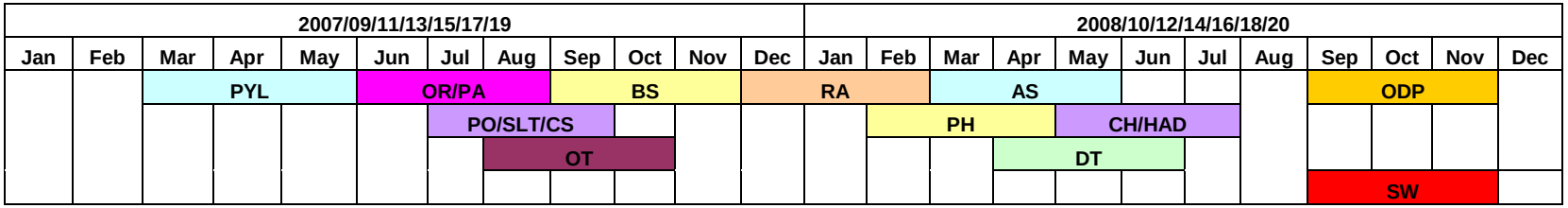
New Professions

For each of the income streams, the income is calculated the same way as current professions.

On the transfer of a register or on-boarding a new profession, their renewal date will be different from the date the register opens. They are entitled to a least 42 days free period. Therefore, during this period they are required to sign their renewal declaration and pay their renewal fee. No income is generated during this period. In most cases the period will be greater than 42 days.

Appendix

Profession renewal periods



List of required documents

1. Registrant numbers forecast (latest iteration possible) (xls)
2. Registrant Income forecast (xls)
3. Graduate income (xls)
4. Fee table (current) (xls)

Appendix ii The FAST Standards

WWW.FAST-STANDARD.ORG

The FAST Standard

Practical, structured design rules for financial modeling.

Version/ FAST01b/ 16.11.12

FAST™

Contents

Introduction/

Welcome to the FAST Modeling Standard

Welcome to the FAST Modelling Standard

Welcome to the FAST Modelling Standard, a set of rules on the structure and detailed design of spreadsheet-based models.

This standard set of rules provides both a clear route to good model design for the individual modeller, and a common style platform on which modellers and reviewers can rely when passing models amongst themselves.

See How Rules are Organized, page 7, for a discussion on how these rules are organised and numbered.

The FAST Philosophy

The FAST Modelling Standard is published openly and regularly revised by the FAST Standard Organisation.

The Signatories to the FAST Modelling Standard believe financial models must be as simple as possible, but no simpler. Any model that is unnecessarily complicated is not good. Without simplicity supported by rigorous structure a financial model will be poorly suited to its sole purpose – supporting informed business decisions.

The Standard advocates a philosophy of good financial model design rules founded on the acronym FAST: flexible, accurate, structured, and transparent. It advocates transparent model structure and clear, crisp modelling style. See section The Fast Acronym below for details on each of these fundamental design priorities.

The Standard has been developed from the experience of industry practitioners who have learned simple techniques to replace overly-clever 'good ideas' that proved bad in practice over time. It documents a skilled craft that is functional within the realities of the business environment. As a minimum objective, models must be free of fundamental omissions and logical errors, and this outcome must be achieved under short lead times.

However, a good model must achieve more than this minimum standard. It must be easily used and reviewed by others and readily adaptable as circumstances change. The FAST Modelling Standard speaks predominantly about outcomes, i.e what the final model should look like. It dwells little on the trade-craft of executing spreadsheet models, with specifics related to Microsoft Excel-based execution. For instance, it does not detail the use of recommended Excel keystrokes or so-called shortcut keys – vastly superior to using a mouse in almost all circumstances – on which the FAST Modelling Standard relies.

However, no set of design rules can be entirely divorced from the manufacturing environment in which the product must be built. Many of the design rules are expressly recommended because of the strengths and weaknesses of the Microsoft Excel modelling environment, providing designs that take advantage of the environment's strengths and mitigating its weaknesses. Recommending design that takes advantage of efficient and error-reducing construction techniques is one of the prime objectives of The FAST Modelling Standard.

Finally, The FAST Modelling Standard presumes the reader has a good understanding of Excel; this is not a 'how to' document, but a professional Standard supported by expert modellers.

The FAST Acronym

Flexible

Flexible Model design and modelling techniques must allow models to be both flexible in the immediate term and adaptable in the longer term. Models must allow users to run scenarios and sensitivities and make modifications over an extended period as new information becomes available -- even by different modellers. A flexible model is not an all-singing, all-dancing template model with an option switch for every eventuality. Flexibility is born of simplicity.

Accurate

Models must reflect key business assumptions directly and faithfully without being over-built or cluttered with unnecessary detail. The modeller must not lose sight of what a model is: a good representation of reality, not reality itself. Spurious precision is distracting, verging on dangerous, particularly when it is unbalanced. For example, over-specifying tax assumptions may lead to an expectation that all elements of the model are equally certain and, for example, lead to a false impression, if the revenue forecast is essentially guesswork.

An overly precise base case only serves to drown analytically more important scenario-based risk analysis and likely ensure the model is incapable of conducting Monte Carlo analyses practically.

Structured

Rigorous consistency in model layout and organization is essential to retain a model's logical integrity over time, particularly as a model's author may change. A consistent approach to structuring workbooks, worksheets and formulas saves time when building, learning, or maintaining the model.

Transparent

Models must rely on simple, clear formulas that can be understood by other modellers and non-modellers alike. Confidence in a financial model's integrity can only be assured with clarity of logic structure and layout. Many recommendations that enhance transparency also increase the flexibility of the model to be adapted over time and make it more easily reviewed.

Fundamental to supporting each of these aims is the root definition of the term analysis– the concept of 'breaking things up'. This theme must be applied at different levels of Model design: tactically in forming short, simple formulas; functionally to separate timing, escalation, and monetary calculations; and structurally at the level of worksheet purpose.

How Rules are Organized

Nearly all modelling design decisions are objectively good or bad; a minority of modelling alternatives are simply one modeller's preferred approach over another. Hence The FAST Modelling Standard is fundamentally organized around a set of rules – dos and don'ts

Rules are meant to be broken. However, such pragmatic behaviour does not render the rule book useless. Breaking rules must be a conscious decision made with justification. Inexperienced modellers will know they are on 'thin ice' when breaking rules and will learn from experience when they have regretted rule-breaking in the past.

The Standard lists exceptions where breaking rules may be advisable. Analogies between good modelling and good writing standards are legion, and this extends to the means of organizing this specification: what works for the budding author works for the financial modeller. For a writing method, an experienced author would first counsel on how to organize the book into chapters, then drill into advice on structuring individual chapters into sections and paragraphs, and finally details on good sentence structure (including word choice).

In this spirit, the FAST Modelling Standard organizes its rules on good model design into four main chapters:

1. The workbook is analogous to the author's overall subject. Workbook rules are concerned with how the subject should be divided up, its chapters, and the logical order and organization of the overall model. The rules that relate to this level are collected in section **1.0/ Workbook Design on page 11**

2. A worksheet is similar to a chapter in a book. Worksheet rules are concerned with design layout, including column usage and breaking the chapter's subject into 'sections' and 'paragraphs'. The rules for how to organize the worksheet are collected in section **2.0/ Worksheet Design on page 20**

3. The line item is analogous to a specific sentence. Line items should have clear labels, clear unit designation, and their formulas should be short, simple, direct, and readily understood. The rules that relate to line items are collected in section **3.0/ The Line Item on page 30**

4. Microsoft Excel is the tool used to create the model analogous to word processing software. Excel has numerous features that can be applied in modelling. Rules governing which features are good, which are bad, and which can be used, but with caution are listed in section **4.0/ Excel Features Used in Modelling on page 44**

A Living Document

The Standard is an evolving document and discussion on points of the Standard are ongoing. You can join in the discussion on the FAST Standard Organisation website: www.fast-standard.org

The FAST website is being updated to accompany the new published Standard. You can sign up at www.fast-standard.org to be informed when the new site is available and the revised Standard has been published.

Following the recommendations of the FAST Modelling Standard moderators, this document is saved to a new version every time a major update is performed. The first version of the document is FAST01a, incrementing from a to z before reaching 02.

When a discussion has come to a conclusion, or a temporary agreement, the conclusions are added to the Standards document as rules and exceptions. A new version of the document is issued every three months, or when there are several new rules to add to it, or significant changes to make to the existing standard.

Document Conventions

The Standard is divided into chapters and sections; each section holds a number of rules. Rules are numbered according to the section:

FAST SECTION NUMBER-RULE NUMBER
For example, FAST 1.01-2

Exceptions to the main rules are expressed as sub-rules:

FAST-SECTIONNUMBER-RULENUMBER.n
For example, FAST 1.10-2.1

Exceptions are listed immediately after rules and are indented.

Rules are, for the most part, prescriptive and use prescriptive language: do not, always, never. When a rule is suggestive, less strong language is used: avoid, should.

A list of defined terms can be found in **FAST Terminology on page 52**

Defined terms are bold and blue (or underlined when contained within a rule.) “good modeling practice begins at the **workbook** level”.

Where keyboard shortcuts are referred two, they are expressed in one of two ways:

Key sequences, where keys are pressed one after the other, are expressed with commas (,) separating the keys: F5, ENTER

Key combinations, where the keys are pressed at the same time, are shown with the keys separated by plus (+) signs: CTRL + SHIFT + J

Throughout, the Microsoft style for referring to keys is used, so, for example, all keys in a sequence or combination are listed and the letters are always shown in capitals, as they are printed on the keyboard.

FAST STANDARD

Section 1.0/ Workbook Design

1

1.0 Workbook Design

Good modelling practice begins with an explicit and purposeful structure applied with consistent discipline at the **workbook** level.

The high-level layout of a **model** must reflect the requirements of two fundamentally different groups of interested parties. To borrow on the automotive analogy, financial model design must cater to both drivers (users of financial models) and mechanics (modellers).

1.01 General Workbook Design Principles

The rules in this section apply generally to **workbook** design and/or all worksheets in a **model.**

FAST 1.01-01

Separate worksheets by type: Foundation, Workings, Presentation and control.

Following on from the principles of good automotive design, **worksheets** within a **model** should be grouped within the following four functional classes:

1. Foundation, including sheets for inputs, timing flags, indexation factors: the model's chassis or main underpinnings. In adapting a model, re-designing elements of the foundation, particular time structure, are the most hazardous operations;

2. Workings, i.e. the build-ups of calculations leading to presented results: the model's 'engine';

3. Presentation, including financial statements, charts, primary commercial inputs, and summary results: the model's dashboard and primary showroom selling points.

4. Control, e.g. check sheets, control of sensitivities and scenarios, change-tracking, list of pending changes, version control, and table of contents: the model's main control devices and engine status indicators.

Each of these functional groups has a different audience (model driver vs. model mechanic) and hence a different design priority.

An issue that arises in the preceding analysis that often causes design challenge and confusion is the dual role of **inputs:** on the one hand foundation and on the other presentation and/or control. Where should they be placed? Input organization is an important design choice; the pros and cons of different approaches should be considered carefully. Should Input sheets ever have calculations? Should inputs ever be located on Workings sheets?

Design specifics for each of family of worksheet are presented in the relevant sections in Chapter 2: Worksheet Design:

• input sheets are described in section 2.04, page 23,
• presentation sheets are described in section 2.05, page 24, and
• control sheets are described in section 2.06, page 26.

FAST 1.01-02 Maintain consistent column structure across all sheets.

Set-up a standard column definition and apply this across all sheets if at all possible, even if this causes a requirement for 'extra', unused columns on some sheets. For instance, the column used for labels, **constants,** units, and first column of given time series can usually be conformed across all sheets in a model.

FAST 1.01-03 Maintain a consistent time ruler throughout the model

FAST-1.01-03.1

Except when multiple time resolutions are required

Presuming the model can be designed with a consistent time resolution throughout (e.g. monthly, quarterly, annual), each **worksheet** in the model should have an identical time axis. This means each worksheet uses the same column for the start of the time ruler and each time ruler should run to the same length, even if this means that some worksheets have unused columns.

Inconsistent time rulers in different parts of the model cause confusion; keeping the time ruler as consistent as possible vastly improves readability and reduces possibility that serious errors are missed during the review process.

FAST 1.01-04 Ensure primary time rulers span time frames of secondary rulers

In some circumstances, a **model** may require different time resolutions and hence different time rulers with a different timing frequency, for example a 'secondary', monthly resolution construction period followed by a 'primary' quarterly operations period.

In these cases, ensure that the primary time ruler encompasses the higher-resolution time period such that summarisation of data from both periods can be effected more easily.

FAST 1.01-05 Proliferate links to maximize navigation efficiency

Repeated links in the **model** have the dual benefit of increasing formula comprehension by co-locating ingredients, more formally known as precedents, alongside the formula itself, within a single **calculation block**. This is one of the cornerstones of the FAST Standard as it is a singularly effective means of increasing the transparency of a financial model.

Links have the additional benefit of increasing navigational efficiency within a model. The inbuilt CTRL + [keyboard shortcut will go straight to the source of a link, where there is a single link in the reference. F5, ENTER returns to the original link location. This greatly increases ease of review of the model user within a given calculation block and increases navigational efficiency throughout the model.

Note: for users of non Qwerty keyboards, CTRL + [will not work. The standard FAST Format Macros book contains a work around for those keyboards, with alternative keystrokes assigned to SHIFT + CTRL + J to following the link, and SHIFT + CTRL + K returning from a followed link.

As stated in FAST 3.06-02: Do not create daisy chains; do not link to links, page 42, all links should point back to the original source calculation and should never be **daisy chained.** Daisy chained links impair the navigational effectiveness of links by requiring the user for following multiple steps to locate the original calculation, and by destroying the efficient 'return' operation possible with F5, ENTER.

FAST 1.01-06 Mark exports with red font and imports with blue font

While the Standard does not attach any philosophical importance to the choice of colours per se, one of the intentions of the Standard is to engender a shared language of modelling across practitioners. There is a case therefore for all users of the Standard adhering to the same colour convention for **imports** and **exports,** simply to reduce the incremental effort required to decode a model where the Standard convention has not been followed. Normally the argument for not following the Standard convention comes down to personal preference on the part of the modeller, which, as aesthetically sensitive as they individual may be, is outweighed by the industry network-effect of shared communication protocols.

FAST 1.01-07 Calculate only once

A given **calculation** should appear only once in a model. While this may sound obvious, it is often violated in practice. Even if it is simple to do otherwise, ensure that subsequent requirements to display or use a set of figures are created by a direct **link** back to the **source** calculation, not by repeating a calculation. (The rationale for this principle is similar to the rationale that an input assumption must appear only once in a model.)

FAST 1.01-08 Use normally positive convention on Workings sheets

The normally positive convention sees all figures in a model as positive and the direction of the value – whether it is coming in or going out – is suggested by the label. Positive labels such as revenues and receipts indicate that something is coming in and negative labels such as expenses and expenditure indicate that something is going out.

FAST 1.01-09 Use in-flow / out-flow convention on Presentation sheets

Flows can be of two types, either an inflow or an outflow. A clear distinction should be made between the two. In order to comply with user expectation and thereby enhance model readability, inflows should be represented as a positive value and outflows should be represented as a negative value. This is the inflow / outflow convention.

FAST 1.01-10 Do not overuse macros

Consensus position being developed for subsequent draft.

FAST 1.01-11 Never release a model with purposeful use of circularity

Circularity is Excel's in-built capacity to iterate to a solution. Test for lack of convergence, for example insufficient debt commitments, rather than setting up model to converge automatically; this often reflects commercial reality anyway.

Circular models inevitably suffer from the modeller being blinded by precision over the principle of accuracy.

1.02 Sheet Organisation

FAST 1.02-01 Arrange sheets so that calculation order flows left to right

FAST-1.02-01.1

Except to group Input and Results sheets

The rationale for this is to improve general readability and detection of inadvertent logical circularities, not calculation speed. Necessary deviations **(counter-flows)** to this 'thinking order' should be:

1. kept to an absolute minimum, and

2. clearly marked when not otherwise obvious.

However, grouping Input and Results sheets at the front of a model can assist readability and comprehension.

FAST 1.02-02 Do not attempt to optimize calculation layout and user interface / presentation on the same worksheet

There is almost always a trade-off between design layouts that are optimized for clarity of calculation and those that are optimized for user interface and presentation. Separate these objectives between Calculation and Presentation sheets to prevent a Model design that is poor on both fronts.

Workings sheets need not (and probably should not) look 'pretty' or be particularly printable, certainly in toto, particularly if this increases construction and maintenance time to sustain appearances that serve no fundamental benefit to the modeller or the user.

FAST 1.02-03 Separate flags and factors onto dedicated sheets

The foundation of any financial model is laid down by the time sheet which defines the time line of the model. Time sheets should contain all flags and partial period factors (PPFs). If timing logic is simple, then **indexation factors** may be included with this logic on 'timing and escalation' sheets, often labelled T&E sheets.

FAST 1.02-04 Separate Workings sheets into functional ‘chapters’

Workings sheets should be functionally sub-divided, for example revenues, costs, financing, tax, accounting and so called **“one-sheet wonders”** should be avoided.

FAST 1.02-05 Minimize inter-linking between sheets

Organizing calculations across **worksheets** in a **workbook** should, in part, also be driven by an effort to minimize Exports and Imports. High density of sheet inter-linkages is a sign of poor allocation of logic to specific worksheets. To use the writing analogy, the chapters are not organized with a sufficient degree of autonomy.

1.03 Multiple Workbook Models

FAST 1.03-01 Do not split a model across multiple workbooks

FAST-1.03-01.1 **Except when more than one modeller must work concurrently**

FAST-1.03-01.2 **Except when different files should be sent to different recipients**

FAST-1.03-01.3 **Except when a single workbook would be too large and intimidating**

Multiple, inter-linked workbooks are usually difficult to manage and generally a bad idea. However, the particular circumstances of a modelling project may sometimes dictate a so-called ‘split model’. Where time-scales necessitate parallel model development by multiple modellers, where different recipients should receive different workbooks for considerations of confidentiality or specialty, e.g. a technical recipient not being confused by financing and tax logic, or where, despite the best efforts of heeding the principle of approximation, a single file would be intimidating and unwieldy simply for its size.

FAST 1.03-02 Avoid direct (external file) links

FAST-1.03-02.1 **Except when the logic flows back and forth between workbooks**

It is generally simpler and easier to manage the manual interchange of data through dedicated import and export areas of respective inter-linked workbooks. However, direct links should be used when workbook A passes calculated values to workbook B, which in turn uses these values to calculate dependent values passed back to workbook A. However, such circumstances should call into question the decision to split the model.

FAST 1.03-03 Use import / export sheets for line items passed between workbooks

Data should be organized into a single ‘exported data’ sheet in the one file and an ‘imported data’ sheet in the second. Even if direct **links** are used, these are functionally similar to **inputs,** albeit potentially refreshed to different values via recalculations, and hence should be separated and organized with a similar approach.

FAST 1.03-04 External file links should be Named

If a model relies on links to external files, these should be named in the source file. In the absence of a call reference in an external file being named, Excel will be unable to keep track of any changes in the location of that cell in the external file.

In most instances, the FAST Modelling Standard advises against using Names, as stated in FAST 4.03-01: Do not use Excel Names, page 48 This is a notable exception to that rule.

Section 2.0/ Worksheet Design

2.01 Universal Layout Principles

FAST 2.01-01 Each column should have a single and consistent purpose

Constants (for example IRRs) should be clearly separated from **series line items.** Further requirements to provide section heading indenting, **display totals,** units, and an empty column to represent the period before modelling begins, should be placed in dedicated columns of appropriate width, a width that should be identical across all sheets in the model.

Exclusive use of a given column for a specific purpose not only improves clarity and structure, but can yield additional advantages. For instance, navigating through column A (say) for main section headings is facilitated with CTRL+ UP ARROW / DOWN ARROW when this column is not cluttered with other data. A separate units column causes the question of units to be begged, never a bad thing.

FAST 2.01-02 Series worksheets should be defined for a single time axis only

FAST-2.01-02.1 **Except series inputs sheets to avoid too many sheets**

FAST-2.01-02.2 **Except where local exceptions warranted**

Including more than one time axis on a given **sheet** must be carefully considered with reference to the four FAST principles. Making life easier on the modeller is insufficient justification. Every sheet should have a dominant time axis located within the freeze pane intersection for consistent viewability. Any other time axis used on the sheet should be clearly marked as an ‘alien’ time axis.

The standard formatting for ‘alien’ time axes will be described in Appendix A: FAST Formatting, page 50, in later version of this document.

FAST 2.01-03 Make only two columns matter

On the presumption that a series **line item** will be constructed via consistent formulas across the row, the requirement for **model** review is limited to confirming only that the first cell in the range is logically sensible. Therefore, only the constants column and the first series column tell the story.

FAST 2.01-04 Calculation logic should generally flow from top to bottom and left to right.

This helps ensures logical flow and consistency of reading / calculation order.

FAST 2.01-05 Mark intra-sheet counter-flows with grey shade

Keeping with the ‘reading order equals calculation order’ design approach, logic should flow top-to-bottom on a given sheet, with necessary exceptions to this **(counter- flows)** kept to a minimum and clearly marked.

FAST 2.01-06 Limit counter-flows to opening balance positions

Although it often impossible to avoid counter-flows, having too many in a given section may be a sign that **calculation** section ordering may need to be considered.

Counter-flowing opening balance positions is generally considered benign since the opening balance is always linked to the previous period closing balance, so it is an indirect link to a previous period balance and thus in keeping with the ‘left to right, top to bottom’ rule (FAST 2.01-04: Calculation logic should generally flow from top to bottom and left to right, above).

Counter-flowing closing balances are more problematic and highly likely to cause a circularity in the model either immediately, or eventually. FAST 1.01-11: Never release a model with purposeful use of circularity, page 16, discusses this further.

FAST 2.01-07 Present information horizontally

FAST-2.01-07.1 **Except for short vertical series for scenario structuring**

FAST-2.01-07.2 **Except where vertical layout is more clear for printing**

Vertical presentation should generally only be used when schedules are required for presentation / printing or where input structures are best laid out this way to support ‘single column’ scenario loading or ‘picking’.

FAST 2.01-08 Do not hide anything

Rows, columns, and **sheets** themselves should rarely be hidden (a prohibition which generally includes use of Excel’s outline feature.

FAST-2.01-08.1 **Except for undefined time which should be hidden**

The primary exception to the previous rule, and a strong design imperative, is to hide commercially undefined cell ranges (columns beyond the defined time axis on horizontal presentations). ▶

FAST-2.01-08.1 Columns to the right that are beyond the **sheets’** modelling range (to assist in CTRL+RIGHT ARROW operations), to restrict the x-axis on Excel charts, and in limited circumstances when the visible range of values is commercially uninteresting (for example first 15 columns are currently all zero).

2.02 Calculation Blocks

Calculation blocks are the paragraph structure of the worksheet. Analogous to a paragraph communicating a single idea lead by a topic sentence, a prototypical calculation block contains a single **calculation** in its last row.

The other rows above this calculation contain the precedents to the calculation, each in turn a **link** directly to the source **line item.** These precedents, the ‘ingredients’ to the calculation, should include links to the source line item’s row label, so-called **live labelling.** They are separated by blank rows above and below to visually separate them from adjacent calculation blocks.

FAST 2.02-01 Construct all calculations in a separate calculation block

All ingredients must be presented as links immediately above the calculation with consistent calculation order and appearance in the formula.

FAST-2.02-01.1 **Except when the calculation block is a balance corkscrew**

FAST-2.02-01.2 **Except when cascading calculations are warranted**

FAST-2.02-01.3 **Except when the calculation is a trivial formula**

FAST-2.02-01.4 **Except when a 2D line item is deemed the more efficient and/or readable design solution**

FAST 2.02-02 Build calculation blocks so they can be replicated

Build calculation blocks so that they can be copied and re-used; apply minimum anchoring on formulas; row-anchor all **links** to facilitate re-using the structure.

FAST 2.02-03 List common calculation block components in a consistent order

Place oft-used components (e.g. **timing flags, indexation factors**) in a similar position each time they are used, usually placing more significant commercial components first and timing flags and factors last.

FAST 2.02-04 List precedents in the order they appear in a formula

FAST-2.02-04.1 **Except when this violates a 'pyramid' layout**

Maintain calculation order by listing precedents in the order they are used in the formula (except for priority for pyramid structure, i.e. where constants are listed first).

FAST 2.02-05 Use corkscrew calculation blocks for balance accumulation

Balance accumulations should be performed by a special calculation block referred to as a 'corkscrew', not via semi-anchored cumulative SUMs. A corkscrew can take one of three design forms:

- a 4-line corkscrew,
- 7-line corkscrews with **flag,** and
- 7-line corkscrew with **PPF.**

FAST 2.02-06 Use timing flag and factor components routinely

Use **timing flags** (or if required, **partial period factors**, a.k.a. PPFs) and separate **indexation factors** universally. Conditional logic embedded in complex formula to test for timing issues should never exist; separating this complexity from the primary calculation with timing flags or factors is always the preferred solution.

If there is a question of setting the time period or inflation that is not driven by flags and factors respectively, then the **calculation block** is likely poorly designed.

2.03 Header Design

FAST 2.03-01 The time axis is best placed on the worksheet only once in a freeze pane

FAST 2.03-02 Display a single end-of-period date in a freeze pane

If necessary to support this design standard, it is often sensible to sub-divide a particular area of the **model** so that all values presented adhere to a single **time axis.**

FAST 2.03-03 Display the operative period flag

FAST 2.03-04 Include a column counter for cross-reference on F11 quick charts

FAST 2.03-05 Include master error checks and alert indicators in the freeze pane

FAST 2.03-06 Include definition of SMU on Presentation sheets

2.04 Input Sheets

FAST 2.04-01 Organize inputs both by structure and commercial area

The most meaningful way of grouping inputs is first to consider their nature, e.g. separating **constant** inputs from **series** inputs, and actual values from forecasts data. These groupings can be further divided by what the inputs represent, for example, capital expenditure, financing, costs or revenue.

FAST 2.04-02 Include a dedicated instruction / comments column on Input sheets

Input sheet should be structured in descriptive style and at the same time maintaining its brevity. Add a “comments” column where any comments, notes or instructions related to a particular input can be precisely written. This information ensures that anybody handling a model understand how to use the input. Such a column will be visible on print-outs; do not use cell comments for such information.

FAST 2.04-03 Create self-documenting Input sheets

Together with readable code, the **model** can act as its own data book (a separate document is exceedingly expensive to produce and rarely up to date to be useful on the day). Printing the input sheets, together with a software copy of the model itself, should give other modellers all the documentation they need.

2.05 Presentation Sheets

The modeller should not lose sight of a **model’s** main purpose: communication. A financial model must communicate the results of numeric analysis: a model is therefore worthless if it fails to present information effectively.

The Standard differentiates between what is effective practice for the calculation and control sheets of a model, and what is effective practice for presentation sheets. Each of these model areas has a distinct function, and, per the famous architectural maxim, form follows function.

FAST 2.05-01 Use Presentation sheets to present the model’s results

Presentation sheets form one of the basic requirement of any model and must be effective in presenting numbers, charts and tables. What sheets are placed in the model is central to its usability and fitness for purpose. Presentation sheets can be described in the form of descriptive analysis, control, report or documentation sheets.

• An analysis sheet describes the **calculation** in descriptive form,

• a Report sheet provides the output in terms of charts and tables. The difference between the two is that the analysis sheet shows every calculation required for the analysis whereas Report sheet is a crux of specific details only.

• A Control sheet presents both inputs and outputs. Sometimes, a model user wants a Control sheet from where they can control the whole model by altering few numbers and check the specific output without shuffling a sheet.

• Documentation sheets provide important information about the models, for example external inputs, exported links, and methodology.

FAST 2.05-02 A model must completely explain how it works without the need for other software applications to present the model outputs

Generally, a model can be divided into **input, calculation** and output. A well structured model contains sections which explain how the model is used and allows the reviewer and model user to use the model as a complete decision analysis kit.

FAST 2.05-03 — Provide a description of the modelling standards and method used to build the model

The description must be precise and provided in terms of points so that the user can get the general model overview in short.

FAST 2.05-04 — Provide a description of the model's flow

A simple model flow is always input ▸ calculations ▸ output. A complex model may have a **counter-flow** of calculations, so the flow must always be described on a sheet to give the user a macro view.

FAST 2.05-05 — Provide keys to colour coding, abbreviation, Named ranges, and functions

Keys are crucial to make the **model** easy to understand. Standardizing the use of abbreviations, range-names and functions helps the user to understand the model fast and allows for key pages to be re-used.

FAST 2.05-06 — Selection of chart type should correspond to the nature of the data being presented

The FAST Standard does not provide specific guidance on the choice or design of charts in a model: there is no need to replicate the excellent work done elsewhere. In the area of effective design of charts and the visualisation of data, we recommend FAST modellers to familiarise themselves with the work of Edward Tufte, especially "Visual Display of Quantitative Information"[1], and Stephen Few's book "Show Me The Numbers."[2] Being more 'applied' in nature than Tufte, Few's publications give modellers a highly systematic and practical guide to the design of effective charts and tables. We recommend that FAST modellers follow Few's recommendations in the presentational sheets in their models.

1 Edward R. Tufte, 2001 (2nd ed.): "The Visual Display of Quantitative Information"; Graphics Press, USA

2 Stephen Few, 2004: "Show Me the Numbers: Designing Tables and Graphs to Enlighten"; Analytics Press, Oakland, California, USA.

FAST 2.05-07 — Charts should be formatted for ease of comprehension of the main messages being communicated

Again we refer modellers to the work of Stephen Few in this area.

2.06 Control Sheets

Control sheets allow the **model** builder to check that the model, or section of the model, works correctly. These sheets can be, for example check sheets, control of sensitivities and scenarios, change-tracking, list of pending changes, version control, and table of contents: the model's main control devices and engine status indicators.

FAST 2.06-01 — Provide a table of content

The table of content should be broken down into functional areas (input, calculation, presentation) to make it easy the user to see which section is preferred for the view. For example Financial Statement sheet link goes under the heading Presentation.

FAST 2.06-02 — Provide a list of model qualifications and weaknesses

This should be actively maintained and included in the standard short-form print-out of the model. Unless clearly documented and presented to the model customer, implicit assumptions may be construed as nothing more than 'serious model error'.

Section 3.0/ The Line Item

3.01 Line Item Taxonomy

Borrowing on the accounting terminology, a line item is the lowest level of granularity that should be considered in the build-up of a model. Akin to considering that the atom is not divisible in chemistry (only in nuclear physics), a line item is the lowest level structure in a model and should not be corrupted.

A modeller must have a clear understanding of how a line item is classified, its taxonomy. General design principles can include:

1. Is the line item a **constant** or a **series**?

2. Is the line item cash or not-cash?

3. Is the line item a **flow** or a **balance**?

4. If the line item is a flow, is it an in-flow or an out-flow from the business or project?

5. If the line item is a balance, is it an opening (brought forward) or closing (carried forward) position?

FAST 3.01-01 Provide clear indication for constants vs series

As constants, by definition, are not time based, they require their own column separate from the time based columns.

This rule is supported by the rules FAST 2.01-03: Make only two columns matter, page 21 and FAST 2.01-01: Each column should have a single and consistent purpose, page 21

FAST 3.01-02 Treat line items as the smallest indivisible object in a model

Treat a line item as an autonomous, incorruptible unit of information. Do not **link** to sub- parts of a line item, including displaying only part of its time range except in the rarest examples. Pass the label, units designator, and **display total** on through to any link.

FAST 3.01-03 Do not use a series structure to present constants

It is tempting to pre-build the flexibility for series constructions on values that do not vary over time, but this temptation should be avoided; adapt the **model** as/if such circumstance actually materializes.

This rule applies to **inputs** in particular. Many inputs in a model are **constants** and will not change over time. Updating the numbers across the time-line is a relatively tedious and error-prone job compared with updating the single cell that defines a constant.

FAST 3.01-04 Do not use row totals in model logic

A row total provides useful information and serves to highlight the line item in question being a **flow** (certainly not a **balance**). However, if a row total is required to be actively used, for example the SUM of discounted cash flows, then a separate (**constant**) line item should be created with its own row. Row totals should have no substantive dependants, and hence be 'display only', i.e. **display totals.** (This rule is further supported by FAST 2.01-03: Make only two columns matter, page 21.)

Even cross-totalling via adding Display Totals from precedent line items should be avoided, though may be sensible as a check performed elsewhere. A missing Display Total, which is a non-structural element, should therefore not raise any concern on the part of the modeller.

FAST 3.01-05 Include display totals on all flows

Totals of flows are informationally important and can assist in spotting errors. Include a display total in a column dedicated for this purpose. Together with FAST 3.05-06: Include the word "balance" in labels of balances, page 40 this rule is a good way to provide clear distinction.

FAST 3.01-06 Do not include display totals on balances

FAST-3.01-06.1

Except when the line item includes a single balance

In this case a flag should be used to select the balance at that point of time and display it in the constants column.

FAST 3.01-07 Place display totals on the left where they are visible

FAST 3.01-08 Make numbers look like what they are with smart format

Use formatting to assist with fast and easy comprehension. Format non-monetary quantities to a resolution that is unlikely to be 'money', for example four decimals for factors, single decimal place for indices. Conversely, monetary units (other than dollars and cents) should be formatted in engineering notation: no decimals or in groups of three.

3.02 Formula Design Fundamentals

FAST 3.02-01 Formulas must be consistent

FAST-3.02-01.1

Except when marked as temporary code

Series calculations must be constructed from consistent formulas along the axis of presentation. 2D line items should be bi-directionally consistent on both the row and column axes. This is one of only a few universally accepted principles of good modelling.

FAST 3.02-02 Mark temporary code clearly

Temporary code should be marked both by wrapping the label in square brackets and yellow shade, along the entire row unless the reason for the status will be clearly visible when the view is on the left-side of the row.

FAST 3.02-03 Do not use partial range references

Ranges used in formulas should always span the entire operative range of any series precedent. Though technically, such formula constructions are not themselves inconsistent, such an approach is prone to creating errors as circumstances change and would worry any model reviewer.

3.03 Formula Simplicity

FAST 3.03-01 Do not write a formula longer than your thumb

Also known as “the rule of your thumb”, referencing the formula in the editing pane, a formula longer than your thumb likely means that it should be broken into more than one step.

FAST 3.03-02 No formula should take more than 24 seconds to explain

Also known as “the rule of seconds”. Understanding and explaining a formula should be a short exercise; if not, break the logic into smaller calculation steps.

FAST 3.03-03 Do not write multi-line formulas

Even if “the rule of your thumb” may be at times bent or broken, under no circumstances should a formula break past a single line. Any such formula is almost certainly too complex, impractical to review, and suffers from the added annoyance (in Excel 2003 and before) that it masks the column letters on the sheet, further hampering model review. Such a formula will certainly break “the rule of seconds”.

FAST 3.03-04 Use a limited set of Excel functions

Very often, by simplifying calculations and breaking them down into calculation block based steps, complex functions are not needed. For specific rules, see Excel Functions, page 45

FAST 3.03-05 Use flags to limit use of IF function

There is nothing wrong with a (simple) use of IF function, as simple statements can generally be read intuitively as simple English. However, it shouldn’t be over-used or used intensively. Circumstances where = IF(TRUE, x, 0), where TRUE is evaluated on some question of time, should be replaced with x * Flag, except where circularity is being deliberately protected. As well = IF (FALSE, x, 0) can be replaced by = x * (1 – Flag).

FAST 3.03-06 Use INDEX (or even CHOOSE) over IF to pick values

For more information on Excel functions, refer to section 4.01: Excel Functions, page 45

FAST 3.03-07 Never use nested IFs

Nested IFs are a common cause of reduced transparency in **models.** They take a long time for users to decode and understand. They are prone to error as there are multiple combination of logical states that are infrequently properly tested by modellers.

Multiplication by flags can often be used to evaluate elements of the logic and breaking the logical steps into separate blocks aids comprehension later.

FAST 3.03-08 Do not use Excel Names

FAST-3.03-08.1 **Except for external links**

FAST-3.03-08.2 **Except for references for macros**

FAST-3.03-08.3 **Except were non-local precedent references are warranted**

The Standard’s approach to specific Excel features are explored in more depth in Chapter 4: Excel Features Used in Modelling, page 44, and Names are discussed in section 4.03: Excel Names, page 48

Consensus position being developed for subsequent draft.

FAST 3.03-09 Do not construct array formulas

Do not use functions that require array constructions, nor form array-variants with standard functions. The resulting complexity is not warranted.

FAST-3.03-09.1 **Except when Excel’s Data Table feature is being used**

FAST-3.03-09.2 **Except when calculation cannot be achieved without arrays**

FAST-3.03-09.3 **Except when the logic bloat required to avoid arrays creates a solution that is more difficult to review than the array alternative**

The Standard's approach to specific Excel features are explored in more depth in Chapter 4: Excel Features Used in Modelling, page 44

FAST 3.03-10 Do not use a space as an intersection operator

Consensus position being developed for subsequent draft.

FAST 3.03-11 Beware circularity or #ERRORs protected on inactive branch of IF function

Under some designs, it may be required that an IF statement be used to 'protect' circularity that would occur on the inactive branch, 'FALSE side of the IF conditional. An example of this is the circumstance where the construction = x * Flag is circular, but = IF(Flag = 1, x, 0) is not, i.e. where the time period during which Flag = 0 cause the circularities.

This feature of Excel (not found in Lotus) should not be used casually. When it is used, it should be marked and commented. It leaves the model in a position where it may become circular via a simple input change.

Excel 'hash errors', e.g. #REF, #VALUE, #DIV/0, etc., do not manifest themselves if they sit on the FALSE-side branch, even if present in the function itself. Hence, IF(Flag = 1, x, #REF) will not manifest a problem in any or all cells where Flag = 1. Model audit software will often not detect this problem either.

3.04 Formula Clarity

FAST 3.04-01 Do not write formulas with embedded constants

FAST-3.04-01.1 **Except when constants are universal**

FAST-3.04-01.2 **Except when constants are deliberately embedded to avoid their manipulation**

Embedding commercial information, for example an inflation rate, is never a good idea, as both clarity of model assumptions and active parameterization are lost. However, not all embedded inputs are created equal. Embedding a 24 (for 24 hours per day), 12 (12 months a year), 1000 (dollars in $ 000s) is permissible, even sensible.

As well, certain constants may be embedded as a clear design intent, rather than presented in explicit input cells. For instance, the model's time frequency, e.g. 6 months per period, may not be able to be flexed, as the model may not have sufficient width to make this change, nor is the design ever expected to support such a change.

FAST 3.04-02 Include spaces between arguments in formulas

To the surprise of many modellers, Excel does allow the use of spaces in formulas. They make the formula clearer to read and only cause disruption in three places:

1. before the leading equal sign;

2. between a function name and the opening parenthesis; and

3. within compound logic operators such as <=, >=, and <>.

We note that the space itself can be used as the intersection operator. However, such usage should not be used, as it will almost always confuse the average model user.

FAST 3.04-03 Do not use parenthesis in formulas unnecessarily

FAST-3.04-03.1 **Except when they may improve formula clarity**

Parentheses ('brackets' to the British) are used to separate the logic in formulas. Keep their use to a minimum, though in some circumstances Excel's order of calculation is less clear than adding superfluous parentheses, for example ($a / 2) * b reads more easily for most people than the functionally identical $a / 2 * b

FAST 3.04-04 — Use “-1 *” coefficient for all sign switches

Sign convention is a larger topic, but when sign switches are required, make the action as apparent as possible: -1 * a rather than simply -a. One cannot over-communicate the intention and visibility of sign switches.

FAST 3.04-05 — Do not include current sheet references in formulas

Including a sheet label for cells referenced on the current sheet only serves to confuse formulas and the reviewer.

FAST 3.04-06 — Do not use elements that appear to be non-structural in model logic

Using elements that would appear to be non-structural in model logic is risky as future users may not be aware of the importance of maintaining integrity. This would apply to using section headings, labels, or empty cells in model logic.

FAST 3.04-07 — Do not over-anchor

Do not anchor beyond what is required to effect a consistent formula. Superfluous dollar signs not only clutter the formula from a reading perspective, but disrupt the ability to copy **calculation blocks** for re-use with different ingredient lines. See also FAST 2.02-02: Build calculation blocks so they can be replicated, page 24

3.05 FAST Labelling Conventions

Labeling is seldom given the thought and emphasis it requires. We are often asked, “What is the main thing one can do to make models more readable and reviewable?” Simply stated, “More and better labels.” In fact, short, simple formulas improve readability mostly because they force the modeler to include more labels explaining and walking the reviewer through each step of what otherwise would be a complex calculation.

FAST 3.05-01 — Provide a label for all line items

Labelling everything improves the clarity of the **model** and avoids modellers making faulty assumptions about what values represent. Labelling constants provides the safety net of a broken anchor described above.

FAST 3.05-02 — Invest time in drafting a good label

Some **line items** are easy to describe, and a comprehensive and clear label comes immediately. In other cases, this is more challenging. In these cases, be clear over being brief and work to streamline the label over time. Spend at least 30 seconds developing such labels; it is worth the investment of time.

FAST 3.05-03 — All line items must have a unique label

Inconsistent and confusing labelling should be eliminated. Each **calculation**, itself unique, should be given a unique label (of course as augmented with units and section headings as relevant). It is no better to have two calculations called the same thing, then to have the same label for two different calculations.

FAST 3.05-04 Include a units designator on all line items

FAST-3.05-04.1

Except it can potentially be omitted when SMU applies
Unit labelling starts with the reasonable command:

"Label everything with a units designator; a missing unit is something that needs attention. Absence of information to convey meaning is a fundamentally weak design".

To this, some will reasonably argue that clarity is hampered by over-cluttering the display with unimportant units designators. One of the common, valid omissions of units is for **Standard Monetary Units** (or SMUs for short). If a units designator is omitted in these circumstances some 'global' indication on a sheet print-out, up in the freeze pane header indicating a statement such as, "Unless otherwise indicated, all monetary units are in $ 000s" is warranted. (See also FAST 2.03-06: Include definition of SMU on Presentation sheets, page 25.)

A case can also be made that Line Items that are inherently dimensionless, e.g. Flags, factors, percentages of amounts (as distinct from interest rates), need not have a unit. However, to avoid any prospect of confusion under circumstances where omission of units on SMU Line Items is adopted, including simple designators such as 'flag', 'index', 'factor', 'of x' (on percentages), etc. likely will improve clarity.

FAST 3.05-05 Choose a capitalization convention and stick with it

The Standard does not take a position on capitalization in labels. The rule is that whatever standard you use, apply it consistently throughout the model. Failure to do so not only looks scrappy and gives a poor impression of the modellers attention to detail. Like all labelling inconsistency it also impairs any ability to search on specific terms and therefore increases **model** risk.

FAST 3.05-06 Include the word "balance" in labels of balances

Together with FAST 3.01-05: Include display totals on all flows, page 32, this rule is one of the clearest means to ensure the distinction between **flows** and **balances** is clear to anyone reviewing the **model.**

FAST 3.05-07 Include the word "cash" when Label is otherwise insufficiently clear

FAST 3.05-08 Unit designators must be clear and unambiguous

FAST 3.05-09 Include units in the label

Including units in the label again adds clarity. When it comes to labels, verbosity is less of a problem than miscommunication.

FAST 3.05-10 Ensure alternative sign version of flows are clearly labelled

position being developed for subsequent draft.

FAST 3.05-11 Ensure distinction between opening and closing balances clearly indicated

It is important to clearly indicate whether a balance is an opening or closing balance. The opening balance will rarely, if ever, be reported on a **Presentation sheet.** For this reason it is given the functional suffix of BEG for 'beginning balance'. While this is not in keeping with accounting conventions, accounting conventions of 'brought forward' and 'carried forward' balances are often shortened to 'b/f' and 'c/f' which are unclear and easy to confuse. The purpose of the BEG suffix is to ensure that modellers do not link to the wrong balance.

Closing balances are given no suffix and the absence of a suffix on a balance line item indicates that it is the closing balance. The reason that no suffix is given is that closing balances are very often reported on presentation sheets, especially on the balance sheet itself and the lack of suffix is preferable from a presentational perspective.

Rule FAST 3.05-03:
All line items must have a unique label, page 39, is related to this rule.

FAST 3.05-12 Maintain labelling consistency pedantically and precisely

Exercise discipline on standard elements to assist in global search and replace, for example, do not use "Tranche A" in one label and "Tr. A" or "TrA" in another). Do not vary the text used for standard suffixes, e.g. BEG for opening balances, POS for positive form of outflow **line items.**

FAST 3.05-13 Unit designators must be consistently applied throughout the model

Consistency amongst labelling components extends to units.

3.06 Links

FAST 3.06-01 — **Row anchor all links**

FAST-3.06-01.1 — **Except when setting up to replicate sections**

It is preferable to remove row anchoring on **links** when setting up a **calculation block** that will be replicated a number of times. This will ensure that when the calculation block is copied, the calculation points to precedents within the new calculation block, and does not hold on to references from the **source** calculation block.

FAST 3.06-02 — **Do not create daisy chains; do not link to links**

In general terms, a daisy chain is series of linked links. The last link does not form a direct link to the original source of the figures, an **input** or **calculation**, but instead is linked to an intermediate link, which in turn is linked to the first object, forming a series.

3.07 Timing Flags and PPFs

Consensus position being developed for subsequent draft.

FAST 3.07-01 — **Use timing flags**

FAST 3.07-02 — **Only create a flag when it is required**

FAST 3.07-03 — **Only use flags that are relevant to the logic they are being applied to**

FAST 3.07-04 — **Include display totals on all flags and PPFs**

Section 4.0/
Excel Features Used in Modelling

4

Though many of the design considerations would apply to any spreadsheet software package, the FAST Modeling Standard has been drafted on the presumption that Microsoft Excel is the software of choice, whether the most recent version is being used or not. Much in the Standard is based on taking advantage of Excel's strengths, e.g. modeling with Links to support fast navigation with CTRL+[key, copying row-anchored links, etc.

However, Excel also has its weaknesses in a modeling context, and these must be considered carefully when considering appropriate Model design. This section is designed to provide guidance on Excel's functions and features in a modeling sense, indicating those that are:

- Generally good to apply in models
- Often smart to use, but should not be over-used
- Have occasional use, but rarely a good idea.
- Should fairly much be banned in modeling use

4.01 Excel Functions

FAST 4.01-01 Use the INDEX function over the CHOOSE function

INDEX and CHOOSE are used for the selection amongst the options. Both functions solve the purpose. However, in FAST methodology we would advise modelers to choose amongst options by using INDEX function over CHOOSE function.

INDEX function has more advantage in comparison to CHOOSE function because INDEX is:

1. Easy to update if additional line items are added. Simply increase the array size.

2. In accordance with the FAST methodology of block calculation.

3. Easy to write the formula as INDEX takes array whereas for CHOOSE we need to point out each of cell addresses.

4. From our experience we have found that sometimes function CHOOSE (if used excessively) makes the file heavy, crashes excel and sometimes model does not get full calculated.

The only advantage CHOOSE has over INDEX is that CHOOSE works when the options are scattered at various places. However, this advantage becomes redundant when following the FAST methodology where block calculations are promoted.

FAST 4.01-02 Do not use the NPV function – ever

We have seen modelers use NPV function quite often. However, we propose to minimize the use of NPV function in spreadsheet Financial Modeling OR use it very intelligently depending upon the type of model we have.

Generally we build financial models where the financial reporting is done on the End of Period (EoP) basis. In these type of models the NPV function should not be used because the NPV function discounts the Cash Flows for a period with the discount rate. This yields a wrong result because Cash Flow which are reported on the EoP should not be discounted in that period.

For the above scenario in particular, the XNVP function can be used instead of the NPV function. Both functions have limitations and cannot be used to cater for varying discount rates.

FAST 4.01-03 Do not use OFFSET or INDIRECT functions

Excel function selection should be 'fit for purpose', and the simplest, most direct implementation should be applied, for example using LOOKUP function variants, when INDEX or CHOOSE is fit for the task would be considered poor style.

OFFSET and INDIRECT functions should be avoided except in limited circumstances, as the logic inter-dependency is not direct when using Excel tracing arrows. (OFFSET for scenario picking in particular should be avoided, as INDEX is invariably a preferred choice.)

FAST 4.01-04 ROUND

Use of Excel rounding functions – particularly for purposes of making figures look better, ensuring tables appear to 'add up' better, or, somewhat ironically, in the interests of precisely matching reality (for example debt draws only available in certain increments) – should generally be avoided. If necessary, find the particular point that requires adjustment, that is do not simply throw ROUND(x, 2) on all formulas.

4.02 Formatting Features

FAST 4.02-01 Use well-defined format styles

Make use of well-defined format styles, ideally merged from a standard workbook that has pre-built styles that are well-engineered and with which the modeler is familiar. Do not lazily stay with the simple defaults provided with Excel.

FAST 4.02-02 Do not merge cells

Avoid merge cell alignment setting, as it disrupts ability to select columns efficiently. (As well, it is rarely of great benefit with advent of Excel's center-across-selection setting.) Merging cells is one of those options that seems like a good idea at the time but then turns out not to be. From a first principles perspective, merging cells breaks the only element of inherent structure that Excel starts with and that doesn't have to be imposed by the modeler. That doesn't seem like it would get us off to a good start from a 'consistency of structure' perspective. Selecting columns and/or rows gets confused when models have cells merged across them and unmerging is time consuming and can cause referencing problems.

The latter is the most common problem faced by modelers in relation to merging cells. However, other points which should be noted while dealing with merge cells are:

Dealing with merge cells in macros can be very problematic.

Model review or audit software also struggles with merged cells and may sometimes simply unmerge all cells in the process of running their analysis procedures.

When a selection of cells containing multiple data values are merged into one cell, then only the upper-left most data value is kept and rest are deleted, and nevertheless to mention unmerging these cells will not bring back those initial cell values.
The only advantage which 'merge cells' options provide in a financial model is the formatting and graphical representation to the summary tables, key output and representation sheets, etc. However, when this benefit can be achieved by using center-across-selection cell formatting, then why to at all use the merge cells in financial models.

4.03 Excel Names

FAST 4.03-01 **Do not use Excel Names**

FAST 4.03-02 **Use Excel Names for external references**

FAST 4.03-03 **Use Excel Names for non-local formula precedents**

The FAST Modeling Standard advocates very limited use of Names, that is adherents to the Standard are generally against Names. Adherents of the FAST Modeling Standard believe that Names positively harm flexibility and transparency; benefits they may provide are often achievable through simpler techniques and design. In fact, Names are better (or only) suited to simple spreadsheets with limited complexity, where reading a simple natural language formula such as = Price * Quantity is a real possibility.

4.04 Data Validation

Consensus position being developed for subsequent draft.

4.05 Group Outline

Consensus position being developed for subsequent draft.

4.06 Macros/ VBA Considerations

Consensus position being developed for subsequent draft.

5.00 Appendix A: FAST Formatting

This section is a placeholder for recommendations that the FAST Standard Organisation make regarding formatting text, numbers and cells to improve a model's readability.

Consensus position being developed for subsequent draft.

6.00 Appendix B: FAST Terminology

In most cases, the FAST Modeling Standard uses terms in the same way as Microsoft Excel documentation. Where the FAST Standard's definition is different or goes in to more detail that the same definition in Excel, it appears as a definition here.

Terms that financial modelers should be aware of also appear here, sometimes with references to external resources.

ALERT	An internal crosscheck in a model which indicates a point of commercial interest and/or problem with the business scenario, not necessarily a problem indicated by a logical problem. Breaches in lending covenants, cash balances below a required threshold, etc. may be classified as alerts. See also Check.
BALANCE	A balance is a value measured at a particular point in time, e.g. the volume of water in a water tank. In accounting terminology, balances are the indicators of the position of a business and they are shown in the balance sheet. Also referred to as 'stocks'.
BASE CASE	The expected case of a model, based on the assumptions deemed most likely to be true. The financial result for a base case should be better than those for a conservative case and worse than those for an aggressive, or upside, case.
CALCULATION	A line item that has a formula with cell references, i.e. will show arrows under a trace precedent command. In FAST terminology, a formula such as = 5 * 10 + 2 would be consider an input, even has precedents and dependents
CALCULATION BLOCK	Autonomous paragraphs on a worksheet, separated by at least one space, where the structure includes (usually) one calculation, with precedent to that calculation which are local. The traditional calculation block has a single calculation on the last row of the block and precedents above it.
CALCULATION ORDER	The sequence in which one calculation leads to another, starting from Inputs and ending at results.

CALCULATION SHEET — See Workings.

CALL UP — See Link.

CASCADING CALCULATION — A formula design where a separate calculation blow is not used to improve presentation or reduce row usage by omitting the repeat of a nearby precedent.

CHECK — An internal integrity crosscheck in a model that necessarily indicates a flaw in the model logic, i.e. no mattr what the business scenario, these checks should not fail. Balancesheet checks, cross-totalling, crosschecks between IRR and NPV calculations, etc. would all be considered likely integrity checks.
See also Alert.

CODE REPLICATION — The practice of copying and pasting code. This of course saves time and effort, but more crucially provides an opportunity to indirectly review the original code, testing its suitability under different assumptions.

CONSTANT — A line item represented by a single value cell, i.e. with a value that does not change over time or may not even have a time specification to it, e.g. an IRR calculation. Should not be confused with an input, which is how this term may be used by other standards.

CONTROL SHEET — A sheet that is not central to the core model logic flowing from inputs through workings to presentation, but generally use to report issues or information about the model. Error check sheets, change control tracking, documentation sheets, etc. would all be considered Control sheets.

CORKSCREW — A special form of calculation block where the opening balance is equal to the previous period's closing balance.

COUNTER-FLOW — A calculation that requires precedents that are calculated 'down stream' in the standard calculation order.

DASHBOARD — A dashboard is a visual, graphical display of the most important information needed to achieve one or more objectives. A good dashboard fits entirely on a single computer screen so it can be monitored at a glance.

DAISY CHAIN — A poor design feature where a link refers in turn to another link.

DATA RANGE — The range of continuous cells that make up a series line item's numerical values.

DISPLAY TOTAL — A total of the complete range of data for a series line item where the value is used for display only, i.e. not then used in model logic and hence has no dependents.

EMBEDDED CONSTANT — A fixed, static number included, i.e. embedded, within a formula, rather than split out separately and presented in its own labeled cell as a constant Input.

EXPORT — A line item that is used on / referenced by anotherworksheet in the model. The dependents of an export is an Import.

FAST STANDARD ORGANISATION — A non for profit company registered in the UK. Established to promote, protect and develop the FAST Standard.

FLAG — See timing flag.

FLOW — A line item where the values presented are accumulated over a period of time, and can also be described and/or derived as the differences between two balances. In accounting terminology, flows are those line items that would appear on either the Profit & Loss (Income) Statement and/or Cash Flow Statement.

IMPORT — A link where the Source Line Item is on a different Worksheet.
The Source of an Import is an Export.

INDEXATION FACTOR — A factor-type line item often used to separate the complexity of inflation into a separate modelling component, alternately referred to as escalation factors (esc factors) or simply inflation factors. Discount factors are essentially reciprocals of indexation factors.

INPUT — Input, generally used as short form of synonym input cells or input-type line item, is any cell that does not contain cell references and hence has no precedents, i.e. are not calculations.
Inputs are most often direct numeric values entered in a spreadsheet cell, but may also contain constructed values via so-called input formulas, which are a permissible alternative, e.g. = 1500 / 12.

INDEXATION FACTOR — Other standards alternatively refer to inputs as assumptions or 'constants'. In the case of the latter, these should not be confused with the FAST Modelling Standard defined term constant, that is any cell that has a value that does not vary over time.

LINE ITEM — A unit of information displayed on a line, row or column, of its own with its own label. Line items can contain some or all of the following components depending on their taxonomy: data range, label, units designator, and display total. As well, a time axis is an implicit attribute of a series line item.

LINK — The simplest form of formula, where the only element is a simple reference to a single cell, but contains no functions or arithmetic operators. Links have a single precedent known as the source line item.

LIVE LABELLING — Generally used only for links, where the link's label cell is a reference to the source line item's label. Hence, consistency of labeling between link and source is guaranteed, and a single change on source will refresh throughout the model upon a recalculation.
Model A workbook, or set of inter-dependent workbooks, where data is structured along an axis of presentation; essentially a highly structured spreadsheet. In a financial model, time is usually the primary axis.

NORMALLY POSITIVE CONVENTION — Leaving all figures in a model as positive and the direction of the value – whether it is coming in or going out – suggested by the label. Positive labels such as revenues and receipts indicate that something is coming in and negative labels such as expenses and expenditure indicate that something is going out.

ONE-SHEET WONDER
An informal term, referring to a model where the vast majority of calculations are performed on a single 'workings' sheet.

PARTIAL PERIOD FACTOR
The analogue form of a timing flag, where values can range between 0 and 1.Generally used in simply multiplication to scale the amount of a flow applicable to a given time period when (say) operations are present in only a fraction of a given period.

PLACEHOLDER
Generic term for a temporary line item, whether entirely empty or containing temporary code. Placeholders are often used to construct formulas from local precedents in a calculation block when a given precedent does not yet exist.

PRESENTATION SHEET
A worksheet dedicated primarily to presenting model results. For a discussion on Results sheets, see Presentation Sheets, page 27

RESULTS
A line item with no dependents.

SERIES
Short for series line item. Any line item with a range of values expressed over some sequential axis – in a financial model, usually time. Series may be inputs or calculations.

SIGNATORY
One of the companies that have signed up to support the FAST Modelling Standard

SMU
See Standard Monetary Unit.

SOURCE
The precedent line item to which a link refers. Short form for source line item.

STANDARD MONETARY UNIT
Often abbreviated SMU is the standard unit of currency in a model, generally as presented in the financial statements and used most commonly in both inputs and workings, e.g. $ 000s. Generally applies to a single currency model, unless one currency is sufficiently dominant over the other(s).

TEMPORARY CODE
Any installation in a model, typically caused by short-term expediency, which violates the design terms of the FAST Modeling Standard.

TIME AXIS / TIME RULER
The timeline associated with a given series line item, generally presented as a 'time ruler' in a freeze pane header when it applies to all of the Line Items on a given worksheet. Defining time axes is an important factor in a model's design, giving shape, structure, and size to a model.

TIMING FLAG
Used to denote the occurrence of a particular event, that is, to place a certain value in time. Flags contain values of either 0s or 1s only and are used either in simple multiplication or often as the basis of an IF statement conditional. If a timing component contains values other than 0s and 1s it should be referred to as a partial period factor. In other standards, flags may be referred to as 'masks', drawn from the idea of a silk-screening process that allows ink through (when equal to 1) or not (when equal to 0).

UNITS DESIGNATOR
The separate description of a line item's units.

WORKBOOK
An Excel file that collects together a number of worksheets. Synonym for 'book' and both terms will be found in this document.

WORKINGS
General term for intermediate calculations, i.e. those that have dependents, i.e. not results. Workings sheets and Calculation sheets are virtual synonyms and may be used interchangeably in the Standard.

WORKSHEET
Synonym for Excel term 'sheet' and both terms will be found in this document.

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7.00 Appendix C: The FAST Standard Rules in Short form.

Chapter 1: Workbook Design

1.01/ General Workbook Design Principles

1.02/ Sheet Organization

1.03/ Multiple Workbook Models

Chapter 2: Worksheet Design

2.01/ Universal Design Layout Principles

2.02/ Calculation Blocks

2.03/ Header Design

2.04/ Input Sheets

2.05/ Presentation Sheets

2.06/ Control Sheets

Chapter 3: The Line Item

3.01/ Line Item Taxonomy

3.02 Formula Design Fundamentals

3.03/ Formula Simplicity

3.04/ Formula Clarity

3.05/ FAST Labeling Conventions

3.06/ Links

3.07/ Timing Flags and PPFs

Chapter 4: Excel Features Used in Modelling

4.01 Excel Functions

4.02/ Formatting Features

4.03/ Excel Names

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FAST
STANDARD
ORGANISATION

Version/ FAST01b/ 16.11.12

Appendix iii Consultation on HCPC registration fees

Council, 4 July 2013

Consultation on HCPC registration fees

Executive summary and recommendations

Introduction

The HCPC's registration fees were last increased from 1 April 2009.

The Council is invited to consider a proposal for increasing the HCPC's registration fees at this meeting. Any fee increase proposals are subject to public consultation.

The attached document is a draft consultation document setting out our proposals. If agreed by the Council, the consultation would run between 8 July 2013 and 27 September 2013.

The results of the consultation would be reported to the Finance and Resources Committee and the Council at their meetings in November and December 2013.

In order to increase the fees, an amendment to the Registration and Fees (Order of Council) Rules 2003 is required. A copy of the draft rules is included with this paper. These rules fall within the remit of the Education and Training Committee. As a result, the consultation document will also be included on the Education and Training Committee's agenda in September 2013 and the consultation responses analysis and proposed amendment Rules considered at their November 2013 meeting.

Decision

The Council is invited to agree:

- the attached document (subject to any amendments as a result of its discussion on the fees proposal or on this paper; minor editing amendments; and final legal scrutiny); and
- that a consultation should be held on proposals to increase the registration fees.

Background information

Article 7(1) of the Health and Social Work Professions Order 2001 ('the Order') requires the Council to 'consult' the Education and Training Committee before making Rules about registration and the payment of fees.

Article 7(3) of the Order means that the Council is required to consult publicly before varying its fees. This includes 'consulting' the Education and Training Committee.

Resource implications

- Amending the draft consultation document as necessary.
- Arranging for the launch of the consultation, including emailing the consultation list.
- Printing and sending hard copy consultation documents on request.
- Analysing the consultation responses and writing further Council papers for Committee and Council.

These resource implications are accounted for in Policy and Standards Department planning for 2013-2014.

Financial implications

- None as a result of the consultation. There would be a small project cost of approximately £3,500 for configuration and testing of IT systems should changes to the fees be agreed.

Appendices

None

Date of paper

24 June 2013

Consultation on HCPC registration fees

A consultation seeking the views of stakeholders on proposals to increase the registration fees charged by the Health and Care Professions Council.

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1. Introduction

1.1 We are the Health and Care Professions Council (HCPC). This consultation seeks the views of stakeholders on proposals to increase the fees we charge for registration.

1.2 The existing fees were introduced in April 2009 and, if agreed, our proposals mean that they would have remained unchanged for five financial years. We are proposing an increase in our fees in order to ensure that we can continue to function effectively as a regulator.

1.3 We are proposing a £4 increase (an increase of 5.3%) to the annual renewal fee. This increases the renewal fee from £76 to £80 per year and the percentage increase compares favourably to inflation of 13.7% over the last four years. We are also proposing a similar level increase to the other fees we charge.

1.4 If the proposals outlined in this document were agreed, the fees would be increased from 1 April 2014. We would continue to have the lowest renewal fee of all the independent statutory regulators of health and care professions.

1.5 Please note that social workers in Scotland, Wales and Northern Ireland are separately regulated in those countries and are unaffected by the proposals outlined in this document.

1.6 The consultation will run from **8 July 2013** to **27 September 2013**.

About us

1.7 We are a regulator and were set up to protect the public. To do this, we keep a register of professionals who meet our standards for their professional skills and behaviour. Individuals on our register are called 'registrants'.

1.8 We currently regulate 16 professions.
– Arts therapists
– Biomedical scientists
– Chiropodists / podiatrists
– Clinical scientists
– Dietitians
– Hearing aid dispensers
– Occupational therapists
– Operating department practitioners
– Orthoptists
– Paramedics
– Physiotherapists
– Practitioner psychologists
– Prosthetists / orthotists
– Radiographers
– Social workers in England
– Speech and language therapists

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About this document

1.9 This document is divided into four sections.

- Section one introduces the document.
- Section two outlines our proposals.
- Section three outlines background to our proposals.
- Section four describes our proposals in more detail.

Consultation questions

1.10 We would welcome your response to our consultation and have listed some questions to help you. The questions are not designed to be exhaustive. We would welcome your comments on any aspect of our proposals.

1.11 The questions are included in section five of this document. However, they are also listed below.

Q1. Do you agree that the renewal fee should increase from £76 to £80?

Q2. Do you agree that the scrutiny fee for applicants from approved programmes should increase from £53 to £56?

Q3. Do you agree that the readmission fee should increase from £191 to £200?

Q4. Do you agree that the restoration fee should increase from £191 to £200?

Q5. Do you agree that the scrutiny fee for international and EEA applications should increase from £420 to £440?

Q6. Do you agree that the scrutiny fee for grandparenting applications should increase from £420 to £440?

Q7. Do you have any further comments on our proposals?

How to respond to the consultation

1.12 You can respond to this consultation in the following ways.

- By completing our easy-to-use online survey:
  [link will appear here]
- By emailing us at: consultation@hcpc-uk.org.
- By writing to us at the following address.

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Consultation on fees
Policy and Standards Department
Health and Care Professions Council
Park House
184 Kennington Park Road
London
SE11 4BU
Fax: +44(0)20 7820 9684

1.13 Please note that we do not normally accept responses by telephone or in person. We normally ask that consultation responses are made in writing. However, if you are unable to respond in writing, please contact us on +44(0)20 7840 9815 to discuss any reasonable adjustments that would help you to respond.

1.14 Please complete the online survey or send us your response by **27 September 2013**.

1.15 **Please contact us to request a copy of this document in Welsh or in an alternative format.**

1.16 Once the consultation period is completed, we will analyse the responses we receive. We will then publish a document which summarises the comments we received and explains the decisions we have taken as a result. This will be published on our website.

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2. Summary of our proposals

2.1 We propose to increase our registration fees as shown in the tables below. This includes the fees we charge for applications for registration which are known as 'scrutiny fees'.

2.2 There are six different 'routes to registration' shown in each table. We charge different fees depending on how someone joins the Register. Please see section four for more information about the routes to registration and proposed increases to our fees.

Table 1: Our existing fees

Route to registration	Scrutiny fee (£)	Registration fee (£)
Approved programme	53	38 (for each year of the first two year cycle)
Renewal	n/a	76
Readmission	n/a	191
Restoration	n/a	191
International / EEA	420	76
Grandparenting	420	76

Table 2: Our proposed fees from 1 April 2014

Route to registration	Scrutiny fee (£)	Increase (%)	Registration fee (£)	Increase (%)
Approved programme	56	5.7	40	5.3
Renewal	n/a	n/a	80	5.3
Readmission	n/a	n/a	200	4.7
Restoration	n/a	n/a	200	4.7
International / EEA	440	4.8	80	5.3
Grandparenting	440	4.8	80	5.3

Notes to table

- % figures have been rounded.
- 'Approved programme means a UK programme of education and training that we approve so that someone successfully completing that programme is eligible to apply to us for registration. There is more information about this in paragraph 4.12.

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3. Background to our proposals

What registrants' fees are spent on

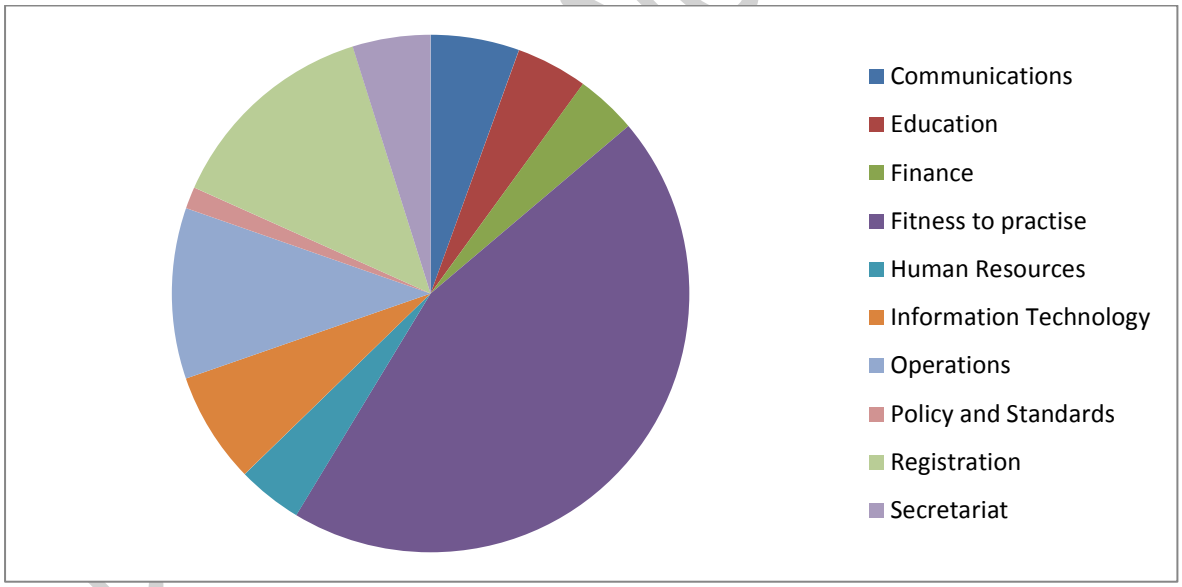
3.1 Figure 1 below shows how we spent our income in the 2012-2013 financial year by directorate. The three areas accounting for the highest proportion of our budget are.

- **Fitness to practise**. This includes the costs of investigating and hearing allegations about registrants, health and character cases and appeals against registration decisions. This area of our work accounted for approximately 45% of our expenditure in 2012-2013.

- **Registration** includes the costs involved in handling and processing applications for registration. This area of our work accounted for approximately 13% of our expenditure in 2012-2013.

- **Operations** includes the costs of maintaining our facilities and running projects to develop and improve our work. This area of our work accounted for approximately 11% of our expenditure in 2012-2013.

Figure 1: Breakdown of expenditure by department 2012-2013



Note to chart

- Excludes depreciation and exceptional items.

- Some costs have been grouped together for the clarity of this chart.

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Our financial performance

3.2 Table 3 below outlines our financial performance in the period since 2008-2009. It shows that we made a small surplus in the 2012-2013 financial year.

Table 3: Our financial performance 2008-2009 to 2012-2013

	Year				
Income / expenditure	**2008-2009**	**2009-2010**	**2010-2011**	**2011-2012**	**2012-2013**
	£000				
Total fee income	13,549	16,088	16, 928	17,419	20,152
Operating expenditure	12,928	16,234	16,257	17,322	20,049
Operating (deficit) / surplus	621	(146)	671	97	103
Investment income, grants and impairments	(997)	47	(51)	(160)	(96)
(Deficit)/Surplus before taxation	(376)	(99)	620	(63)	7

Notes to table

- Investment income, grants and impairments is an overall (deficit) / surplus figure and includes items such as grants from Government to regulate new professions and investment gains / losses.

3.3 Our financial performance is scrutinised regularly by our Finance and Resources Committee and Council. The papers considered by the Committee and the Council and minutes from their meetings are available on our website here: http://www.hcpc-uk.org/aboutus/committees/

3.4 You can also find out more information about our financial performance by looking at our annual reports. These are available from the 'publications' section of our website: www.hcpc-uk.org/publications

Why the fee increases are needed

3.5 We are an independent regulator which means that we are self-financing - our operating costs are funded entirely from the fees our registrants pay. We do not receive any regular funding from the Government. The only occasion on which we receive funding from the Government is to cover the costs associated with bringing a new profession onto the Register.

3.6 We agreed as a result of feedback during a previous consultation that we would review our fees every two years, on the basis that our stakeholders would prefer us to take an incremental approach, avoiding substantial unexpected increases in our fees. The level of increase to our fees proposed in this document is consistent with that commitment. This is also consistent with good financial management, ensuring that we have sufficient funds to

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continue to function effectively as a regulator, and avoiding financial difficulties which might necessitate large, unplanned increases in our fees.[1]

3.7 Based on our projections of future activity levels, we forecast that without the proposed increase to our fees we would make an unsustainable deficit of approximately £1.0m in 2014-2015 and £2.6m in 2015-2016.

3.8 If the fees were increased as proposed in this document, we project that our income would increase by approximately £1.4m in 2014-2015 and £2.2m in 2015-2016, compared to our income if no increase to the fees was made.

3.9 In reviewing our fees, we are mindful that because we register each profession on two-year cycle, it will take two full financial years before any increase in the renewal fee has full effect. If the fees were increased as proposed from 1 April 2014, we would gain 36% of the increase in 2014-2015 and 64% of the increase in 2015-2016.

[DN: Projected financial figures given above are correct as at 4 June 2013]

Inflation

3.10 The fees were last increased from 1 April 2009. Since then, inflation has averaged over 3% per year.

3.11 Table 4 on the next page shows that the proposed increase to our fees is well below the rate of inflation in the period 2009-2010 to 2012-2013.

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[1] For example, the Nursing and Midwifery Council (NMC) recently increased its renewal fee from £76 to £100 per year. It has also accepted a £20m grant from the Government to avoid a larger increase. https://www.gov.uk/government/news/government-offers-20-million-grant-to-the-nursing-and-midwifery-council

Table 4: Inflation 2009-2010 to 2012-2013

Year	Inflation %	Fee (if maintained in line with inflation)
1 April 2009	**n/a**	**£76**
March 2010	3.4	£78.58
March 2011	4.0	£81.72
March 2012	3.5	£84.58
March 2013	2.8	£86.95
Total	13.7	

Notes to table

- Bold type shows fee introduced on 1 April 2009.
- 'Fee (if maintained in line with inflation)' is the cost of the renewal fee if it had increased in step with inflation. Figures have been rounded.
- Inflation figures are from the Consumer Prices Index (CPI). Source: Office for National Statistics.

How the proposed renewal fee compares with other regulators

3.12 Table 5 overleaf shows the registration renewal fees charged by the regulators overseen by the Professional Standards Authority for Health and Social Care (formerly the Council for Healthcare Regulatory Excellence).

3.13 The table shows that our proposed renewal fee would still be the lowest of all these regulators. We are able to charge relatively lower fees due to the efficiencies and cost-savings associated with having a larger number of registrants. This is illustrated in Figure 2.

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Table 5: Comparison of renewal fees across independent UK health and care professional regulators

Regulator	Annual renewal fee	Number of registrants
Health and Care Professions Council (HCPC)	**£80**	**311,366**
Nursing and Midwifery Council (NMC)	£100	672,095
General Pharmaceutical Council (GPhC)	£108 (pharmacy technicians) £240 (pharmacists)	66,179
General Dental Council (GDC)	£120 (dental care professionals) £576 (dentists)	99,518
General Optical Council (GOC)	£260	23,935
Pharmaceutical Society of Northern Ireland (PSNI)	£372	2,098
General Medical Council (GMC)	£390 (registration with a licence to practice)	246,075
General Osteopathic Council (GOsC)	£610	4,585
General Chiropractic Council (GCC)	£800	2,700

Notes to table

- Ascending order from lowest renewal fee. HCPC figure is the proposed new renewal fee. All other fees correct as of date of publication.

- This table does not include the following (where such fee types exist).
    - Discounts on fees in the first or early years of registration.
    - Discounts on fees on the basis of income.
    - Fees for 'non-practising' registrants.
    - Fees for student registers.

- Registrant numbers are from the Council for Healthcare Regulatory Excellence (CHRE) performance review report 2011-2012, with the exception of the figure for HCPC which is correct as of 1 May 2013.

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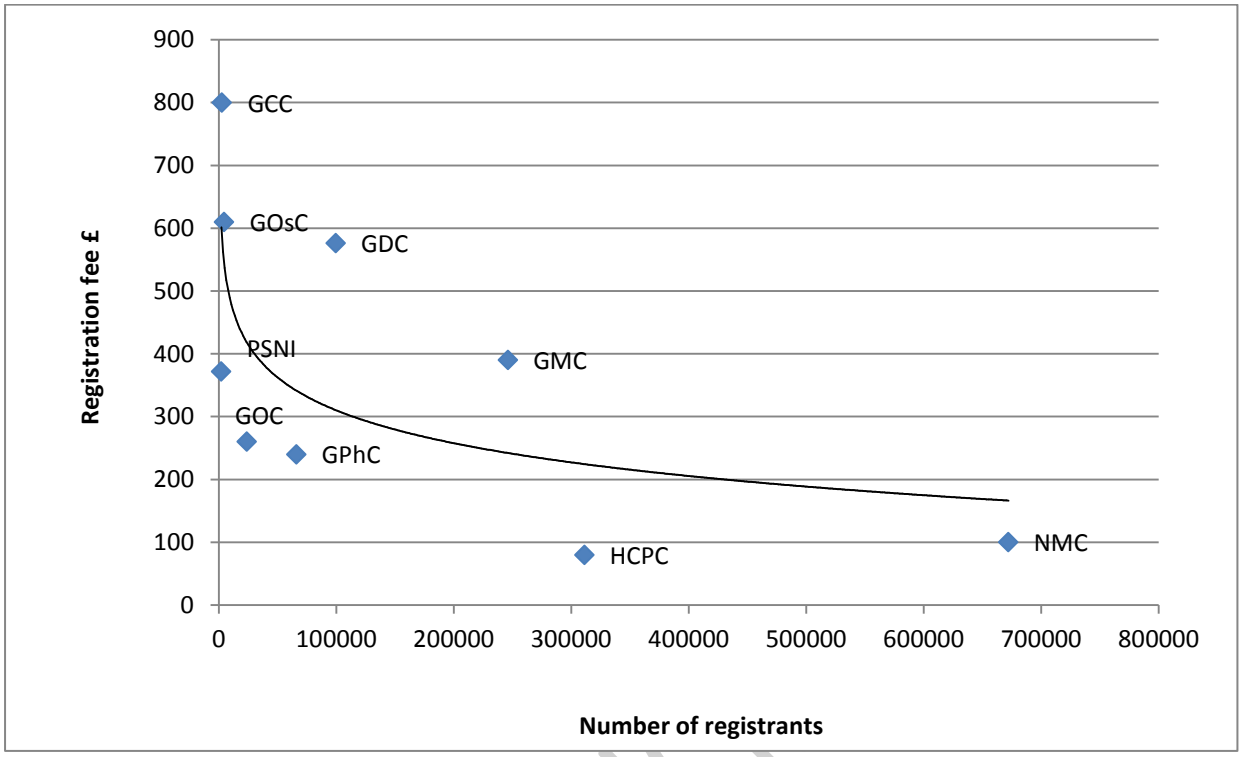
Figure 2: Relationship between renewal fee levels and registrant numbers



Notes

- Renewal fees are for dentists (GDC); pharmacists (GPhC); and registration with a licence to practice (GMC).
- Figures correct as of June 2013.

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4. Our proposals in detail

4.1 In this section we explain our fees proposals in more detail. We have asked a number of questions on our proposals.

4.2 If the proposals described here were subsequently agreed, they would be effective from 1 April 2014.

Paying our fees

4.3 We charge fees when someone applies to become registered, when they come back on to the Register after a break, and when they renew their registration.

4.4 Registrants are able to pay for their registration either in one payment for the two years of their registration cycle, or they can pay the fee in instalments, by direct debit every six months. Scrutiny fees are non-refundable and payable in full when we receive an application.

Tax relief

4.5 Registration fees are tax deductible for standard rate UK taxpayers. This means that the proposed £80 renewal fee would in effect be reduced by 20%, reducing the proposed fee by £16 to £64.

4.6 There are three different ways in which registrants can claim back tax relief on their registration fees:

- by providing details of the payment on their tax return;
- by writing to their tax office, including their national insurance number and details of the payment; or
- by obtaining form P358 from their local tax enquiry office and sending the completed form to their tax office.

4.7 For more information about our fees and tax relief visit our website at: www.hcpc-uk.org/registrants/fees

Renewal fees

4.8 Registrants in each profession renew their registration in two year cycles. We send a letter to each registrant inviting them to renew their registration online, or by requesting a paper renewal form. They have to renew their registration by the renewal date we set by completing a declaration and paying the renewal fee or completing a direct debit authorisation.

4.9 The renewal fee is the same for all registrants, including those who may be working part time. We do not offer a discount for part time working because our costs in undertaking our role as a regulator are the same, regardless of whether someone is working full or part-time hours. We also consider that the increased costs associated with establishing such a system and introducing measures to check whether people who registered as ‘part-time’ were not

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working over a certain number of hours would be disproportionate and prohibitive.

4.10 We are proposing that the annual renewal fee should increase from £76 to £80.

Q1. Do you agree that the renewal fee should increase from £76 to £80?

4.11 If this change was agreed, existing registrants would pay the new renewal fee the next time that they renew their registration after 1 April 2014. Renewal dates are provided in Table 6 below.

Table 6: Dates when the proposed new renewal fee would apply for each profession

Profession	Renewal period starts
Dietitians	April 2014
Hearing aid dispensers	May 2014
Chiropodists / podiatrists	May 2014
Social workers in England	September 2014
Operating department practitioners	September 2014
Practitioner psychologists	March 2015
Orthoptists	June 2015
Paramedics	June 2015
Clinical scientists	July 2015
Prosthetists / orthotists	July 2015
Speech and language therapists	July 2015
Occupational therapists	August 2015
Biomedical scientists	September 2015
Radiographers	December 2015
Physiotherapists	February 2016
Arts therapists	March 2016

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Registration fees – UK approved programme route

4.12 The majority of people we register for the first time have successfully completed an 'approved programme'. An 'approved programme' is a UK programme of education and training that we approve so that someone successfully completing that programme is eligible to apply to us for registration. We sometimes refer to this as the 'UK approved course' route.

4.13 The non-refundable scrutiny fee is currently £53. This covers the costs we incur in processing applications. Applicants for registration who are newly qualified who apply via this route receive a 50 per cent discount on their registration fee for the first two professional years of registration, as long as they apply within two years of completing their approved programme.

4.14 We are proposing that the scrutiny fee charged to applicants who have successfully completed an approved programme should increase from £53 to £56. We propose that this group of applicants would continue to receive a 50 per cent discount on the cost of registration for the two years of professional registration, as long as they apply within two years of gaining their approved qualification. This would increase from £38 to £40 per year for each of those years.

Readmission fee

Q2. Do you agree that the scrutiny fee for applicants from approved programmes should increase from £53 to £56?

4.15 Registrants come off the Register and subsequently seek to re-register for a number of reasons. These might include career breaks or because they fail to renew in time. When someone comes off the Register and wants to be registered again, we refer to this as 'readmission'.

4.16 We charge a higher readmission fee to cover our costs in processing applications for readmission. We recognise that sometimes registrants might come off the Register unintentionally, perhaps because they forgot to renew their registration by the due date, or because they forgot to tell us about a change of address. The higher readmission fee is therefore not charged if we receive an application to come back on to the Register within one month of a registrant coming off the Register.

4.17 We are proposing that the fee charged to applicants applying for readmission should increase from £191 to £200. This includes the registration fee for the first year of registration. Registrants who apply to come back on to the Register within one month of coming off would not have to pay the higher readmission fee.

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Q3. Do you agree that the readmission fee should increase from £191 to £200?

Restoration fee

4.18 Our fitness to practise process is the way in which we consider allegations about the fitness to practise of registrants. If a case is proven at a final hearing, one of the options open to a panel is to direct that the registrant's name be 'struck off' the Register.

4.19 When a registrant is struck-off the Register, they can apply to us to be registered again after five years. Restoration is not automatic, but if a panel decides that they can be registered again, they need to fill in a registration form and pay the appropriate fee. We call this process 'restoration' to the Register.

4.20 We currently charge the same fee for restoration as for readmission and we are proposing the same increase from £191 to £200 (which includes the registration fee for the first year of registration).

Q4. Do you agree that the restoration fee should increase from £191 to £200?

International and EEA scrutiny fee

4.21 We receive applications from applicants who have qualified outside the UK via our international route to registration. This group includes applicants exercising European Economic Area (EEA) mutual recognition rights. We look at each application individually so that we can decide whether the combination of an applicant's education, training and experience means that they meet our standards for safe and effective practice.

4.22 We charge a scrutiny fee to cover our costs in processing applications for registration from this group of applicants. This includes the costs involved in paying registration assessors to assess each application and the resources involved in processing applications.

4.23 We are proposing that the International and EEA scrutiny fee should increase from £420 to £440. This does not include the cost of registration. The cost of registration would be £80 per year.

Q5. Do you agree that the scrutiny fee for international and EEA applications should increase from £420 to £440?

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Grandparenting scrutiny fee

4.24 'Grandparenting' is a transitional route of entry to our Register. It allows individuals to register who do not hold a qualification approved by us, but who meet the criteria for registration. We look at each application individually to decide whether the applicant has met our requirements and is able to be registered. This route to registration is only open for a limited time period when a profession first becomes statutorily regulated. The grandparenting route to registration has closed for all the currently regulated professions.

4.25 We charge a scrutiny fee to cover our costs in processing applications for registration from this group of applicants. This includes the costs involved in paying registration assessors to assess each application and the resources involved in processing applications.

4.26 We propose to increase the scrutiny fee from £420 to £440. This does not include the cost of registration. The cost of registration would be £80 per year. The proposed fee would apply should we regulate further professions in the future for which grandparenting is required.

Q6. Do you agree that the scrutiny fee for grandparenting applications should increase from £420 to £440?

Rule changes

4.27 If the proposals set-out in this document are adopted, they would require amendments to our Rules. The Rules set out the detailed procedures and requirements for some of our functions, including registration and fees.

4.28 We propose to amend the Health Professions Council (Registration and Fees) Rules 2003 to reflect the increased level of our fees.

4.29 Under the Health and Social Work Professions Order 2001, any amendment to the Rules must be made by the Council and then approved by an order of the Privy Council.

4.30 You can find copies of our existing rules as well as the draft fees rules in the publications section of our website at: www.hcpc-uk.org/publications/ruleslegislation

Further comments

4.31 We would be happy to receive any further comments you might have.

Q7. Do you have any further comments on our proposals?

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