

Review of Australia Post Cost Allocation Methodology

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Executive Summary

Objective of the study

This report was prepared in August and September 2015 for the Australian Competition and Consumer Commission (ACCC). The ACCC has commissioned WIK-Consult (WIK) to review and assess the Cost Allocation Model (CAM) used by Australia Post.

The ACCC is seeking advice on the extent to which Australia Post's CAM adequately reflects the cost of providing reserved letter services. For this purpose, the authors

- assessed the reasonableness of the allocation of Australia Post's direct and shared costs between reserved and non-reserved services and the range of reserved letter services including 'regular' and 'priority' letter services, and
- reviewed the appropriateness of the CAM given relevant accounting standards and practice, the trend of declining letter volumes and increasing parcel volumes delivered by Australia Post, and current and future cost differences in the delivery of 'regular' and 'priority' letter services.

The study also is intended to provide the ACCC information on costing in the context of its upcoming price notification decision on intended price changes of Australia Post regarding the ordinary letter service. The ACCC is also seeking advice on potential improvements that could be made to the CAM. This report provides advice on

- the extent to which the CAM provides a reasonable model to derive efficient costs and prices for 'regular' and 'priority' letter services, and
- potential improvements that could be made to the CAM.

Methodology and building blocks of the CAM

Australia Post's cost allocation aims to ensure that all products and services are charged appropriately with the costs of the enterprise. Australia Post's Cost Allocation Model, since August 2013 the Enterprise Profit Model (EPM), is a fully absorbed cost model which utilises Activity Based Costing (ABC) as cost allocation methodology. Resources, i.e. cost inputs, are consumed by activities and activities are consumed by products and services. This approach is reasonable to systematically break-down recorded postal expenditures into established product and services cost categories.

According to the Report Keeping Rules (RKR), issued by the ACCC, the EPM reports cost in one of three defined cost categories (account items) which use different cost allocation methods:

- **Direct Cost:** A direct account item is one solely associated with a particular service. For example cost of goods sold can directly be attributed to products sold in Australia Post's retail stores. As far as possible, an account item must be reported as a direct account item but the direct allocation of activity cost is rarely possible for letter mail and parcel services.

- **Attributable Cost:** An attributable account item is part of a pool of common account items that are identifiable to a particular service by a separable cause and effect relationship. Due to the shared nature of postal operations, the majority of account items are classified as attributable. The RKR require that attributable account items are assigned on a causation basis as far as possible. The EPM uses a volume driven allocation of attributable cost. Australia Post allocates attributable cost to activities and then uses a series of weighting factors to allocate activity cost to products. Volume is a key driver in this context which shifts costs between products if and when volumes and the product mix changes. There are three key categories of factors for the allocation from activities to services / products:
 - Relative Use: product volume, e.g. number of articles posted.
 - Probability Factors: represent the 'probability' of the service undergoing an activity, e.g. 78% of Ordinary Small Letters are sold through the LPO network.
 - Relative Effort Factors: reflect relevant differences in handling products at an article level within the same activity, e.g. transaction size or time.
- **Unattributable Cost:** An unattributable account item is part of a pool of common account items but is not identifiable related in whole or in part to any particular service by separable cause and effect relationship. For example, costs associated with central support functions such as finance and corporate affairs are classified as unattributable items. Unattributable account items should be allocated using allocating factors which are the closest available to ones with a causal relationship.

Strength and weaknesses of the CAM

In the context of price notification decisions and the extent of which the EPM provides a reasonable model, we identified the following strength and weaknesses:

- **Consistency with RKR:**
The overall structure in which the EPM is generated and presented guarantees regulatory involvement and consistency over time. EPM-based cost information is provided in a framework which is defined in principle by the ACCC and where the ACCC has control over the implementation principles although there remains a relevant degree of discretion for Australia Post to design the cost model and to set and change the relevant parameters.
- **Consistency with financial accounts:**
The cost inputs for the EPM are derived from Australia Post's General Ledger (GL) which guarantees consistency with its financial accounts. This consistency also allows the generation of balance sheets segmented at a product, service group and segment/portfolio level. A further advantage of this structure for the ACCC is that the data in the CAM is externally audited.
- **Fully allocated costing ensures all costs are allocated to services:**
The EPM allocates all costs identified in the GL to services. That means all services which use the shared infrastructure contribute to covering total costs based on their consumption of these resources in the network. Non-reserved services like parcel

services contribute scale benefits to the use of the network and absorb (at least partially) the loss of economies of scale due to declining volumes of reserved letter services. Hence, reserved services benefit from growth of non-reserved services compared to a stand-alone costing approach.

- Use as an internal management tool:
The EPM is also being used for internal management reporting of Australia Post, in addition to being used to support price notifications to the ACCC. Using the same tool for internal reporting which supports commercial pricing decisions and for external regulatory reporting gives much more comfort to the ACCC that the model outcomes are accurate, consistent and properly reflect Australia Post's business reality.
- Based on actual cost:
A major weakness of the EPM is the top-down cost modelling approach which is based on actual cost, i.e. the costs generated by the model do not represent efficient cost in the economic sense. They include resources which may not be used in the production process such as overcapacity of assets and labour resources.
- Ex post cost allocation:
The EPM does not represent forward-looking costs as it informs about cost as they have occurred in the past. Assets are valued at historic cost and not at their forward-looking current cost. The production process is represented as it has been structured and managed at a certain point in time in the past and not as it might be structured in a forward-looking efficient sense. Resources are treated as cost as they are actually occurring and not as they should be in an efficient production process.
- No integrated model which allows simulation or forecasts:
The EPM, as provided to the ACCC, only provides raw data which informs on the allocation cost path from activities to weighting factors and to products. The data sheets are not integrated and therefore do not allow simulating the effects of parameter changes to verify / test forecast scenarios. Moreover, this does not allow performing sensitivity analysis or in-depth analysis of the underlying calculation with regard to inconsistencies or errors in the application of the methodology.

Review and assessment of Australia Post's CAM applied in FY 2013/14

Our study focusses on a selection of activities related to core postal functions (acceptance, processing, transport and delivery of mail items). The selection of activities was based on the identification of the most relevant activities in terms of total cost allocated and with respect to the allocation of cost between non-reserved, reserved and notified services, letter, parcel and express services, and regular and priority services.

Generally, Australia Post's Regulatory Procedure Manual (RAPM) and the supporting documentations do not include a detailed model specification but only high-level explanations on the EPM. The raw data set lacks documentation with respect to abbreviations and explanations for attributes of the data set. For most activities, the documentation on the exact elements included in the activities, on the considerations

underlying the factors used for cost allocation and on the derivation of the factor values is extremely short and does not appear sufficiently informative.

Some activities are highly aggregated with respect to the included elements/sub-activities and – as a consequence – in terms of cost allocated to these activities. For some activities a more granular approach including some sub-activities may be useful and recommendable. This also would allow for a better incorporation of changes in the production processes due to technological progress (for example the degree of automation in processing) or changes in delivery processes related to the changing compositions of mail volumes (for example decreasing letter mail volumes, increasing parcel volumes).

Australia Post's approach of combining volumes with factors that account for the relative effort in processing different postal articles for the allocation of attributable cost is appropriate. However, a limited number of concerns about the applied factors and factor values emerge from our review/assessment.

- For some activities, our assessment raises concerns about the use of the appropriate factors for the cost allocation and the extent to which the allocation of these activity costs to products are based on the principle of cost causality.
- Factor values of major factors (in terms of cost allocated through these) are not changed since our review in 2008 although we would expect changes to be necessary due to changes in the composition of mail volumes (e.g. letter mail decline, increasing parcel volumes) and due to changes in the processes (e.g. automated sequencing, joint delivery of letters and parcels).
- The assigned factor values for unaddressed mail items are rather high compared to other (addressed) mail items, in particular in the relative effort factors assigned in processing activities.
- Some factor values for parcels seem to be rather low compared to some letter mail products (non-reserved large letters >250g). The factor value for large letters seems appropriate compared to reserved letters below 250g. The low values for parcels could have a material impact on Australia Post's cost allocation, as these particular factor values allocate a significant proportion of Australia Post's costs. The low factor values for parcels may indicate a cost shift towards reserved (and notified) services although the factor values relate to non-reserved services: increasing values for non-reserved products would mean that ordinary letters are allocated a smaller portion of an activity's cost. However, we could not identify significant systematic cost shifting from non-reserved to reserved or notified services.

During 2013-14 Australia Post provided a choice of two speeds for its business mail services only. In our review and assessment, we only identified differences between the costs allocated to priority and regular services in the allocation of transport activity cost. It seems reasonable that activities related to other functions (delivery, processing) do not incorporate any differentiation between the handling of regular and priority mail in FY2013/2014. Both types of mail are still handled as part of the same unadjusted processes. This is intended to change in the future.

Another criticism stemming from our review of the CAM is that the Regulatory Account Procedure Manual (RAPM) and supporting documents do not provide an explanation of the allocation of the unattributable cost. Based on our review we identified no indication that unattributable cost is allocated via an equi-proportionate mark-up (EPMU) rule to products. We would recommend to generally using the EPMU rule as the allocation principle for unattributable costs.

Potential improvements to the CAM

The regulatory functions of the ACCC would be much better supported by an EPM which is capable of conducting simulations. In this case the ACCC could use the EPM to perform parameter changes and calculate the impact from a coherent and consistent model instead of having to analyse such changes on the basis of (ad hoc) top-down approaches.

We regard it as important that the EPM integrates a forecast module. Today at least the ACCC has to rely on modelling tools other than the EPM to derive forward-looking information on costs and revenue requirements of a notified service. This is unsatisfactory, in particular as missing links between the EPM and other tools may generate inconsistencies and shortcomings.

Some (delivery and processing) activities in Australia Post's CAM are highly aggregated with respect to the included elements/sub-activities and a more granular approach including some sub-activities may be useful and is recommended. This also would allow for a better incorporation of changes in the production processes due to technological progress (e.g. degree of automation) or due to changing mail volume structure (e.g. decreasing letter mail volume and increasing parcel volumes).

Outlook on changes of cost structure due to reform

Central to Australia Post's reform program (RoLS) is the introduction of two-speed letter services which will give customers a choice between a 'Priority' letter service and a 'Regular' letter service that will be delivered to a slower timetable.

Australia Post's reform program and its central element – the introduction of a 'Priority' and a 'Regular' service for ordinary letters – yield significant changes in Australia Post's postal supply chain, particularly with respect to processing and delivery activities. On the one hand, Australia Post's investment program will significantly increase the level of automation of mail processing and reduce the amount of manual work in the sorting and indoor delivery processes. On the other hand, the utilization of capacities will be increased, for example by shifting processing activities to daytime and lowering the required peak capacities during the night. As a consequence, Australia Post's CAM has to be adjusted to the changes in the postal supply chain due to the RoLS program and the introduction of Priority and Regular letter services. For example:

- Australia Post has to amend its product portfolio used in the CAM to include Regular and Priority letter services.

- Australia Post has to amend and decompose the activities in the CAM to reflect the changes in the postal supply chain. For example, the CAM may implement a more granular modelling of processing activities to accurately allocate cost between manual and automated sorting or between sorting during the day and sorting at night.
- Australia Post has to amend the factor values applied in the CAM to allocate activity costs to products according to changes in the postal supply chain. Additionally, the introduction of new factors may be necessary to reflect cost differences between Priority and Regular letter services, for example a factor which accounts for different handling requirements in delivery and processing activities.

Recommendations

From our review and assessment of the Cost Allocation Model (CAM) used by Australia Post in FY 2013/2014, we could not indicate any systematical bias or distortion in the cost allocation to products. However, we deduce the following recommendations. In order to maintain a reliable CAM which operates most efficiently, Australia Post should ensure that:

- there is improved transparency in model documentation (more detailed model specification, detailed explanation of elements included in activities, derivation of factor values);
- there is more detailed tracing and reasoning of factor value changes;
- activities, factors and factor values reflect the actual processes in the core postal functions;
- the CAM will be further developed to an integrated model which enables
 - consistency checks and the identification of potential calculation faults, and
 - simulations and sensitivity analysis (which could also be a deducted version of the CAM);
- the CAM gets an integrated forecast module to conduct consistent calculations for price changes in the future;
- certain activities better reflect the actual processes with respect to products;
- relative effort factor values, in particular for parcels, reflect the actual processes, state of technology and volume structure;
- certain activities are refined to better reflect differences between products and sub-activities;
- unattributable cost are allocated to products according to an EPMU rule;
- certain activities are separated into sub-activities so that they sufficiently reflect cost differences related to the introduction of ordinary stamp priority and regular mail services.

