

CURRENCY CONFERENCE

October 1999

CHANGES TO AUSTRALIA'S NOTE PROCESSING AND DISTRIBUTION ARRANGEMENTS

**Les Coventry
Head of Note Issue
Reserve Bank of Australia**

CHANGES TO AUSTRALIA'S NOTE PROCESSING AND DISTRIBUTION ARRANGEMENTS

1. Introduction

Cash distribution and processing arrangements in Australia have changed significantly over the last eighteen months or so. This paper outlines those changes but starts with some background on how things operated before moving on to discuss why they have evolved to their current stage.

2. Background

Under the RBA Act, the Reserve Bank of Australia ("the Bank") is responsible for the issuing and destruction of Australia's currency notes. To achieve this, the Bank plays a key role in the distribution and processing of currency in the community. The Bank's operations are carried out through the Cash Services areas of its branches located in Australia's largest capital cities, Sydney, Melbourne, Brisbane, Adelaide and Perth. (The Bank also has a branch in Canberra but this is limited to a Banking Services operation. The Bank closed its Hobart branch some twelve months ago and its Darwin branch two year's ago.) The focus of this paper is on how the Bank distributes notes (new and reissuable) from its branches rather than on the movement of new notes from our printer to our branches.

Historically, different distribution arrangements applied for capital cities and regional areas. Distribution arrangements for regional areas are not discussed in depth in this paper but the multiplicity of systems currently used is being reduced and the primary method in the future will be similar to that which has been implemented for capital cities.

Up until July 1998, the Bank distributed cash to banks in capital cities via a "retail service" called the **Centralised Cash System (CCS)**. In the CCS, individual bank branches placed orders for notes with the Bank, the Bank made up bags containing notes to meet those orders, and the bags were delivered to bank branches via cash-in-transit companies referred to in Australia as armoured car companies (ACCs). The ACCs also collected surplus and unfit notes from bank branches and returned them to the Bank for processing. In general, the ACCs were required to use separate vehicles for the delivery or pickup of CCS bags and their other commercial deliveries or pickups. Over time the Bank had moved to recover more and more of the costs of providing the CCS service.

The Bank also supplied cash in bulk or on a "wholesale" basis to ACCs to service their non-bank commercial customers (which included branches of other financial institutions) and bank branches that required special services such as the loading of off-site ATMs or notes of higher than normal quality. The Bank charged for the provision of bulk cash (3 cents per \$1000), but also allowed ACCs access to limited

amounts of cash on the Bank's account through "early draw and late lodgement facilities"¹. The Bank also introduced rules in 1990 to encourage ACCs to use their commercial collections today to meet their orders for tomorrow, thus reducing unnecessary turnover and hence processing by the Bank. Such rules did not apply to the CCS.

Figure 1 summarises these distributional arrangements, highlighting the ownership of cash.

Since the early 1980s, the Bank has had a policy of processing all notes returned to its branches. To facilitate this policy, 21 high-speed note processing systems were purchased and installed in the Bank's branches.

3. Developments between July 1998 and August 1999

The main driving forces behind recent changes to distribution arrangements have been:

- to reduce excessive processing by the Bank. During the 1980s the Bank was experiencing an increase in the rate at which it was seeing notes. By the late 1980s the Bank was seeing each note in circulation on average more than five times a year. This was judged to be excessive and much greater than many other countries considered necessary to keep the circulation clean and free of counterfeits. Most of the growth in turnover was a result of an increase in the commercial operations of ACCs although it was recognised that some commercial banks were also overusing the system. As noted above, the Bank introduced rules in August 1990 that encouraged ACCs to use some of their commercial note collections each day to make up orders for notes the following day.

By the mid 1990s, turnover had dropped to around three times per annum but it was judged that still more needed to be done with the aim of getting turnover down to around two times a year (this would involve RBA internal processing levels dropping from around 1.5 billion notes to 1.0 billion notes per year ie by around 30 - 40 per cent).

Pressure to reduce turnover also strengthened following the introduction of polymer notes. It was clear that these notes were lasting much longer than paper notes and counterfeiting was declining. Therefore, it was decided that

¹ The ACCs were permitted to pick up bulk notes from the Bank one day prior to payment. The notes could be packed but not disbursed until the day of payment. The late lodgement facility allowed ACCs to receive value for notes on the day they were collected from their customers provided the notes were stored within the ACC's depots by 4.00pm. The notes then needed to be transported to the Bank by 10.00am the next business day.

the Bank did not need to see notes as often for the purpose of culling unfit notes and checking for counterfeits;

- operating within a "competitively neutral" framework. The Bank, like many other government enterprises, began to look at the costing of those services it provided in competition with others from the private sector. What surfaced from that study was a realisation that the Bank's CCS service was generating insufficient revenue to cover the cost of providing the service. Furthermore, if charges had been increased to a level to fully cover costs, plus generate a small surplus, the service would not have been competitive with bag services offered commercially by ACCs;
- improving the efficiency of the cash distribution system. The Bank was particularly concerned with excessive churning of notes. For example, on any given day an ACC could deliver through the CCS to a bank branch a bag made up by the Bank containing a particular denomination and on the same visit the ACC would pick up a bag containing that same denomination for return to the Bank. The Bank formed the view that the banks and ACCs were to some extent using the Bank as a free sorting service. It was the Bank's view that while ever the Bank continued to be involved in a bag service it would inhibit the development of more efficient and cost-effective distribution arrangements. Consequently, the decision was taken in July 1997 to exit the CCS bag business by mid-July 1998.

The Bank initiated a consultative process with the banks and ACCs to come up with a new distribution system. The process moved slowly to start with but eventually the banks and ACCs suggested a system in which the CCS would be replaced with an almost identical system, but with the ACCs providing the old CCS bag make-up service rather than the Bank. This proposal envisaged that a given ACC would provide the service to all banks in a particular capital city from a 'pool' of notes held by the ACC but on the Bank's account. The different ACCs would compete with each other for the role in each city.

The Bank proposed that a variation of the 1990 turnover rules that applied to notes needed by ACCs to service their commercial customers should also apply to notes needed to service banks. The Bank's push for this and more significant changes was questioned by banks on the ground that it involved pushing significantly higher costs onto the banks for what they saw as no net benefit.

In the old CCS system, the Bank was a net issuer of notes to banks, whereas it was a net receiver of notes from the ACCs' commercial business. Initially, it was thought that if ACCs were able to use surplus commercial cash to supplement bank needs, then the Bank would have been unlikely to achieve the turnover it was looking for of around a billion notes per year.

As a result, the Bank suggested that the new distribution arrangements be based around the idea of "**Bank Note Pools**". These would be limited holdings of Bank cash at the premises of the ACC that previously had the CCS delivery business in each capital city and could be used to meet the needs of banks.² Surplus notes would go into the Pools, subject to limits on the Pool holding. Unfit notes would be returned to the Bank and, when needed, the Bank would replenish the Pool. This would segment notes used by the ACCs to service banks from notes used to service other commercial customers. Arrangements for ACCs to access cash from the Bank for commercial needs would remain unchanged.

While the Bank was willing to hold more of its cash at locations outside of its own premises, it did not want additional cash going back onto its books each night. The Bank also stipulated in the negotiations that it would not meet any of the costs of operating the Pools.

Negotiations to finalise the proposed new arrangements proved difficult. At the last minute, the uniform/co-operative approach the banks had taken to that time broke down. A significant factor in this breakdown was the decision by one bank to use a new ACC in the Australian market place which sought to capture a significant market share through very aggressive pricing. In the event, and as a generalisation, each bank went its own way and contracted for one of the three ACCs to provide a retail bag service for that bank in all capital cities.

Under time pressures to get a new system operating, the Bank agreed that each of the three ACCs could establish a Bank Note Pool in each capital city. Further, the Bank agreed that a Pool did not have to be in a single location, ie the Pool could be spread across a number of depots of the same ACC in the same city, and that turnover rules would not apply to the Pools. The Bank also agreed that the charges for bulk or wholesale cash would be dropped. This was seen as consistent with the Bank's public duty which was defined as provider of bulk cash to the community. Figure 2 summarises these arrangements.

After 12 months of experience with this system, the results were:

- overall, the Bank believes that operationally the new arrangements had gone reasonably well after some initial teething problems especially with accounting matters;
- the Bank is comfortable with the general concept of ACCs having a limited pool of the Bank's notes held permanently at their depots as it was not much different to that which occurred with early drawing/late lodgement

² While all Note Pool operators are ACCs, other organisations such as the banks could have played this role but none chose to.

arrangements or with Note Issue Agencies which had operated in regional areas for some time;

- banks and ACCs are generally happy with the new arrangements;
- processing at the Bank was down by around 20 per cent as against a desired 30 - 40 per cent. In one centre processing was only down 5 per cent;
- there was a slight increase in the amount of notes returned onto the Bank's account each night.

The disappointing reduction in the Bank's processing volumes was an inevitable consequence of the fragmented arrangements that arose from banks going their own way, combined with the fact that some banks are net drawers of cash while others are net returners. The Bank Note Pools at each ACC generally service the needs of one, or at best two or three, of the major banks. Further, individual ACCs have generally aligned themselves with either net drawing or net returning banks, not a mixture of both. Consequently, there is generally no opportunity for surplus cash from one bank to be used to meet the needs of another. There has also been some leakage of what was previously commercial business for ACCs into Bank Note Pool activity.

In anticipation of a more significant decline in processing volumes, combined with the elimination for the Bank of the preparation of notes stage of CVCS processing, the Bank restructured its Cash Services areas. The higher than expected processing volumes have, however, created significant strain on resources (overtime etc).

In addition, the unevenness of flows led to ACCs visiting the Bank more frequently than expected (not just once a week) to return surplus note holdings or to obtain additional notes to top up Bank Note Pools. Also, Pool limits were exceeded on occasion, something the Bank was not comfortable with and sought to keep to a minimum. Reluctantly, however, it was agreed that limits could be temporarily exceeded on some occasions.

In light of the above experience, the Bank started another round of negotiations with the banks and ACCs. While these were proceeding, efforts were made to further reduce the number of notes being returned to the Bank. Some branches were involved already (to a limited extent) with a practice known as "offsetting" which applied solely to bulk/wholesale cash. This was more widely encouraged in early 1999. Under this arrangement, ACCs were permitted to hold in their depots notes which would have been lodged with the Bank on Friday but could now be used to meet Monday's drawings, provided the ACCs brought the notes into the Banks' branches, where they could be sighted on the transport vehicle. This was subsequently extended to include anticipated drawings for the Monday of the following week. However, ACCs were still visiting the Bank's branches during the week to lodge or draw notes.

In April 1999, offsetting was extended further at two of the Bank's branches (Victoria and Queensland, where backlogs were most significant) such that Friday's lodgements could be kept to satisfy drawings on any day during the following week, and early drawings for the following Monday, with surplus notes being lodged on the Friday of that week. The Bank bore the insurance costs of the ACCs holding this surplus over the four nights from Monday to Thursday.

4. Developments since August 1999

In August 1999 a further change was made. In Victoria and Queensland, each ACC was able to have a single pool of Bank cash that could be used for both bank and commercial business (a combined "Note Pool"), the 1990 turnover rules on ACCs' commercial activities were removed along with early draw/late lodgement facilities and offsetting is no longer permitted. The limits applying to the Bank note pool holdings at the ACCs were raised to accommodate the move to a single note pool. The limit also applies to each State/Territory for each ACC and encompasses not only its business in metropolitan areas but also regional/country areas. Figure 3 summarises the current distributional arrangements. From mid September 1999 the combined Note Pool arrangements were extended to Australia's remaining States/Territories.

A single note pool system is expected to provide the Bank with some flexibility in its note processing arrangements. It is possible that processing volumes could fall below the Bank's target level of 1 billion notes per year when the system is fully implemented. Should this occur, the Bank will consider ways to achieve the target and some rejigging of the arrangements may be necessary. An alternative could be for the Bank to instruct ACCs to return specific denominations of notes at times to facilitate monitoring of notes in circulation for cleanliness and authenticity. If this were to occur, the Bank has offered to meet any costs associated with the return of notes from Pools and of providing notes to replace those returned.

There is also a concern that when this revised approach is fully operational the volume of notes held at ACC depots on the Bank's account could rise. The Bank will monitor this and if volumes do rise above acceptable levels counteractive measures may need to be considered. These could include a reintroduction of turnover rules or other restrictions on access to Note Pools.

Issues of concern to banks and ACCs with a single Note Pool include discrepancies and note quality (in particular a concern to maintain the quality of notes entering the pool from commercial collections). Processed notes from a bank or ACC are placed into tamper-evident packages. If notes move without the package having been opened by the previous recipient then they will not be recounted. Any discrepancy is settled between the packing bank or ACC and the opening bank or ACC.

For the future, the Bank will monitor the new arrangements and if necessary continue to work with banks and ACCs to develop further improvements. The Bank is proposing that transfers between pools operated by different ACCs in the same State/Territory should occur. It has also proposed that Note Issue Agencies, Mobile Cash Units and other specialised arrangements in regional areas would cease and regional areas would be serviced by the ACCs from their State/Territory pool. This would minimise the number of different cash distribution systems.

5. Summary

On balance, it is the Bank's view that the new arrangements have worked well and have gone a long way to achieving the desired objectives. Specifically, our achievements include:

- we have created a simplified and uniform system for distributing cash rather than a myriad of different systems;
- we have a more efficient system with scope for further innovation;
- unnecessary processing by the Bank has been reduced significantly;
- with the Bank's exit from the CCS, banks have been able to achieve cost savings through increased competition between ACCs;
- we have reduced excessive transporting of notes.

FIGURE 1 : CASH DISTRIBUTION PRIOR TO JULY 1998

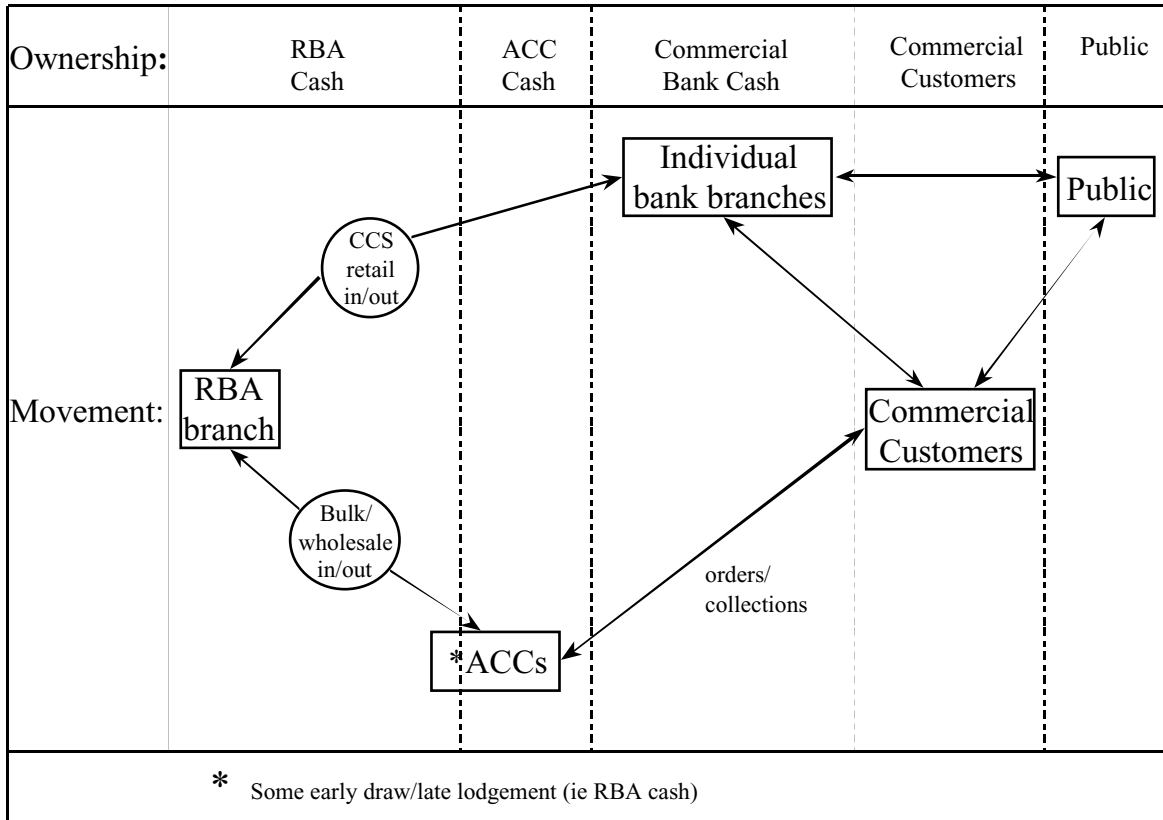


FIGURE 2 : CASH DISTRIBUTION JULY 1998 TO AUGUST 1999

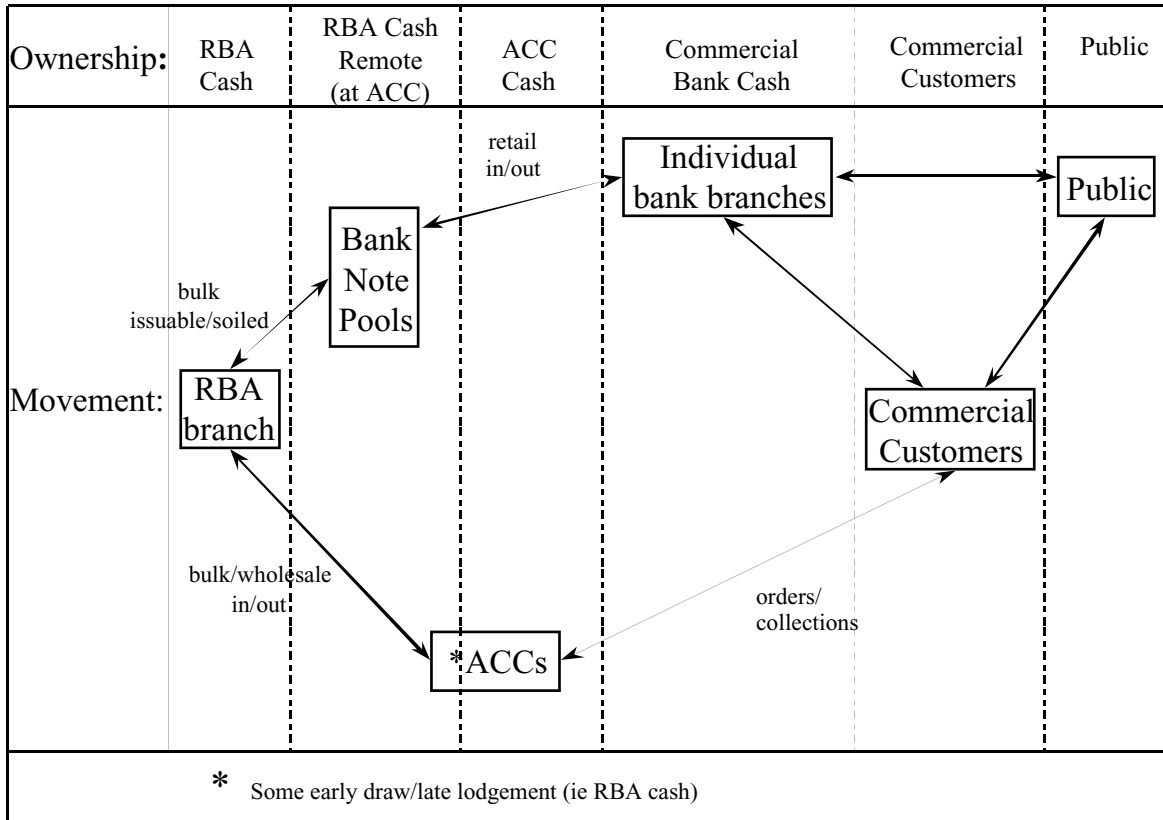


FIGURE 3 : CURRENT CASH DISTRIBUTION ARRANGEMENTS

