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COMMERCIAL IN CONFIDENCE

5 December 2000

Mr Ian Macfarlane
Governor
Reserve Bank of Australia
65 Martin Place
Sydney NSW 2000

Dear Mr Macfarlane

Joint Study into Debit and Credit Card Schemes in Australia

Recently, I and my colleague Peter Thomas, General Manager, Payments Policy, met with Mr John Laker, Mr John Veale and Ms. Michelle Bullock of the Payment Systems Board (PSB). We found the meeting most helpful and productive and at its conclusion we promised to provide some initial comments on the Joint Study.

At the meeting we indicated that Australia's card based payments system is world class and that we need to preserve this strength. Nonetheless we agreed that it is entirely appropriate that there be a thorough examination of the system to ensure that it meets the proper needs of the Australian community, personal, business and government.

Accordingly we welcome the opportunity to work with the many interested parties and stakeholders to ensure that if there are to be changes to the present arrangements and that these are beneficial to as many such interested parties and stakeholders as possible. In particular we wish to reiterate, as we stated at our meeting, that the National accepts the need for greater transparency and access in the credit and debit card businesses and in the arrangements surrounding the ATM networks and also in the appropriateness of some form of regulatory oversight.

We understand from your colleagues, and indeed from the RBA's 1999/2000 Annual Report, that the Reserve Bank supports the approach adopted by the Australian Competition and Consumer Commission (ACCC) to the regulation of the credit card business in Australia. This means that the ACCC has responsibility for credit card regulation while the PSB will retain carriage of the debit card and ATM businesses.

The provision of credit card and debit card services in this country is inextricably interlinked and changes to one part of the business will necessarily affect the other.

The PSB are clearly most mindful of this and we were pleased to hear that they are willing to play a facilitating role in the industry to resolve issues stemming from this need to consider both parts of the business in their totality. Nevertheless, we remain concerned about the division of responsibilities and how this might work in practice.

The role of the PSB will be particularly important and helpful. It will, we hope, provide a forum for the free and frank exchange of ideas amongst organisations that are highly competitive and for whom any such discussions carry the risk of being considered to be contrary to the Trade Practices Act.

As you would expect, while the National appreciates the diligence and competence with which the RBA and the ACCC prepared the Joint Study and respects the views advanced in the study. Nevertheless it would be remiss of the National if we did not refer to some of our concerns about the methods used to produce a series of findings that essentially criticise the way the system operates in relation to its customers.

While the study did not make any recommendations for change inter alia, it found the following:

- Interchange fees in the ATM, credit card and debit card networks are high relative to costs, although in the case of debit cards the study noted that the entire network appeared to be running at a loss;

- The "no surcharge" rule adopted by credit card schemes inhibits transparency in pricing and therefore does not provide appropriate price signals to customers vis-a vis other payment instruments;

- The perceived lack of competitive pressures (in particular, restrictions on access to the credit card schemes) have contributed to the alleged excessive fees;

- The manner and level at which fees have been set has resulted in a bias towards credit as compared to debit. Not only has this resulted in a higher cost structure, but also users of other payment instruments, such as cash, are subsidising those who use cards.

- As a consequence of these and other issues the efficiency of the payments system in Australia in not optimal

To summarise these findings, the Study supported:

- A cost based pricing methodology for the setting of interchange;

- Greater transparency in the pricing process, in particular to ensure that all participants in the system were aware of the components that made up the price paid; and

- Greater access to the card schemes, particularly from the standpoint of acquiring activities

We comment as follows:

Costs are not necessarily the only way upon which prices can be based. This is covered in the attached report from Professor Stephen King and associate Professor Joshua Gans, two prominent micro-economists from the University of Melbourne who the National engaged to provide an independent analysis of the Joint Study (Appendix A).

However, even without considering the alternative methods for setting prices, the National has considerable concern about the way the Study actually assessed costs. While King and Gans have found difficulties with the methodology, they have also queried the non-inclusion of valid costs such as loyalty schemes, cost of capital and risk in investment.

In terms of the methodology, the Study adopts an approach that dictates that issuers and acquirers are not entitled to cover more than their direct costs. Pricing takes into account many non-cost variables such as channel management incentives, the impact of competition etc.

It is worth noting that despite their strictures on the limitations of the costing analysis, King and Gans have restated the Study's own figures and found that."…the current interchange fee is the appropriate outcome of a fair division of costs between card holders and merchants" (see section 3.2 of their report).

As an aside, at Appendix B is a comparison of interchange rates in some other countries. This comparison indicates that Australia's system compares favourably with other countries and is one of the most efficient and value for money in the world.

That having been said, the National accepts, as stated at the outset, the proposition that pricing should be more transparent to end consumers. Hence, we believe that the issue of surcharging for the various payment mechanisms, including credit cards, for example, deserves further consideration. In the case of consumer payments to merchants one of the considerations is the possibility of customer confusion caused by different pricing methods. This could be considerable and might impact on a merchant's business.

In this regard it is interesting to note that in his UK report Don Cruikshank found that the ability to impose a surcharge in the UK had not in fact lead to their wide spread use.

You will be aware that a group of banks active in the credit card business in Australia have commissioned a study into interchange and other aspects of the credit card systems. This is being undertaken by *Frontier Economics* as part of the banks' on going discussions with the ACCC in respect of that bodies enforcement activities.

In all its pricing strategies, the National pursues, as far as possible, a "user pays" regime. On this basis the National considers that the Study's suggestion in respect of ATMs that a "surcharge" would be better than the present interchange arrangements has merit and should be explored. However, the suggestion in section 4.2 of the Joint Study as to the setting of differential pricing of ATM services depending upon location does have some societal and operational implications which we would like to consider before moving to such a regime.

The National also has been consistent in its views (including in its submission to the Wallis Inquiry - extract at Appendix C) that the payments system should be open to competition providing that all participants face the same costs and hurdles of participation.

Of particular concern however, is the need to maintain the integrity of the system and isolate it, as far as possible, from individual or systematic failures to meet payment obligations.

Access issues also need to be canvassed with the card associations themselves. These are large international organisations that have Australian participation as a small part of their overall business. I am sure that you will appreciate that the local members of VISA International and MasterCard have very limited ability indeed to bring about changes to the rules of those schemes. We would be willing to propose such changes to the card associations or if necessary work with the regulators towards a legislative solution.

As with the question of interchange the banks have also commissioned a study of the credit card access regimes, again in connection with the ACCC's enforcement activities. This research is being undertaken by the *Allen Consulting Group*.

Turning again to the Joint Study, there are a number of issues that require further analysis. These include:

- The fact that while the study indicates a desire to lower prices there could be a consequent reduction in incentives to enter the business. It is perhaps worth observing that while the United States has a very large number of credit card issuers it also has an interchange regime which is substantially higher than Australia's;

- The fact that if prices are low then the use of credit cards may increase relative to other payment instruments (an outcome seen as undesirable by the authors of the Study);

- The conclusion of the Study that the debit card interchange fee should be set at zero. The likely effect would be that acquiring banks would seek to recoup the costs of running the network by increasing charges to merchants. Perversely, this might ensure that merchants would be less likely to use debit card facilities over credit cards;

- The apparent bias against debit cards through cross-subsidisation. It should be noted that even if this analysis was accurate, the current system provides small and medium businesses with a very efficient means of managing their cash flows.

The above comments should not be taken as a definitive analysis or critique of the Study. We have raised the above matters as illustrations that further work must be undertaken if the aims of customers, merchants, financial service providers and regulators are to be met.

The National believes that the Study has raised important issues in relation to the efficiency of the card based payments system and that these issues must be considered by all participants and other stakeholders. In this context, we would expect that independent studies by participants in the system, as well as that by *Frontier Economics* and the *Allen Consulting Group*, will contribute to mutually acceptable outcome that benefits all stakeholders, including the National's customers.

The National is ready to work towards positive improvements to address the concerns raised in the Study. In considering any change however, care needs to be taken to preserve the highly positive aspects of a payments system that is one of the safest, most reliable and efficient in the world.

We are looking forward to continuing our dialogue with your colleagues at the Reserve Bank and the PSB. Should you wish to raise any issues directly with me I would, of course, be delighted.

In closing, I should mention that we have asked one of our senior executives, Peter Thomas, to devote himself exclusively to the resolution of these issues. Until recently, Mr Thomas has been the general manager for our global payments business. He also has extensive experience in many aspects of banking and finance gained over a 37 year career with major international banks in the United Kingdom, Hong Kong and the United States of America.

Yours sincerely

(Signed)

Ross Pinney

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NOTICE

The authors of the paper attached to the National's letter to the Reserve Bank Governor dated 5 December 2000, would like to clarify that where the term "Joint Study methodology" is used, the methodology reflects methodologies applied by the international card schemes themselves and not methodologies developed by the Reserve Bank of Australia and/or the Australian Competition & Consumer Commission.

The observations contained in the attached paper are further developed and expressed in our Australian Business Law Review Paper (April 2001) that can be downloaded from our website at www.core-research.com.au.

Joshua Gans
University of Melbourne

Stephen King
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19 September 2001

Observations on the Joint RBA/ACCC Study "Debit and Credit Card Schemes in Australia: A Study of Interchange Fees and Access"

Joshua Gans and Stephen King
University of Melbourne
9th November 2000

1. Summary

We have been asked by the National Australia Bank to provide some observations on the Joint RBA/ACCC Study into interchange arrangements in Australia (released in October 2000). The purpose of that study was to evaluate the economic efficiency of interchange arrangements. The study broadly concluded that some of the conditions under which interchange arrangements operated (in particular the level of interchange fees themselves) and contractual terms imposed by privately operated payment systems (for example, no surcharge rules) meant that both the cost of transacting in the Australian economy were too high and that the mix of payment instruments being used was inefficient with some types of instruments (namely, credit cards) being favoured over others (namely, debit cards).

Our observations here are intended to highlight the key insights and deficiencies in the Joint Study. Consequently, we focus on two issues. First, we ask whether the Joint Study has established if there is a problem in need of regulatory attention. Second, we review the methodology used by the Joint Study to assess whether current interchange fees are set inefficiently.

On each of these questions, we identify key deficiencies in the Joint Study.

- *The Problem*: The Joint Study summarises some of the concerns that have been raised in other jurisdictions regarding interchange fees and associated arrangements. However, it falls far short of establishing a case for regulating or amending the interchange fees and procedures. The Joint Study presents no concrete evidence that there is a problem with interchange in Australia.

- *The Methodology*: The Joint Study calculates 'efficient' interchange fees using alternative methodologies. Their approach is inappropriate for two reasons. First, both methodologies assume that interchange fees for any payment system should be set at zero if possible and deviations from zero should only be based on individual participants' abilities to recovery their costs. They provide no justification for the use of this benchmark, and do not show why this benchmark would be economically efficient or socially desirable. Second, even accepting the Joint Study benchmark and approach, a fair distribution of the surplus from the

payments system as well as a proper accounting of costs leads to interchange fees that are higher than those recommended by the Joint Study. Indeed, in the case of credit cards, the Joint Study's own methodology – applied properly – leads to the conclusion that current interchange fees should not be changed.

The Joint Study is an interesting but ultimately incomplete analysis of issues of interchange and access for ATM, Credit and Debit card services. In places it describes lucidly and accurately the current state of economic thought but it fails to translate this into a logical and empirically grounded set of conclusions. At a minimum, therefore, we recommend that the study be grounded in an economic methodology and that it consider more carefully arrangements elsewhere in the world before any specific policy recommendations are adopted.

2. Is There a Problem?

Before considering any form of regulation, it is appropriate to ask first whether there is a problem. The Joint Study briefly looks at this issue when it considers the role of interchange. However, its analysis does not appear to be consistent with its later conclusions. Analysis of whether there is a problem with interchange is appropriately qualified. In contrast, the Joint Study's policy recommendations are based on an assumption – that is not justified by any evidence provided by the Study – that the conditions under which interchange arrangements are a problem actually hold.

To see this, consider the Joint Study's rationale for the existence of an interchange fee. A payments system involves a joint supply by (potentially) distinct parties. The acquirer, who services the merchant, can be a different party to the issuer, who services the customer. These services are intrinsically linked - a merchant will not value access to a payments system unless some customers use that system and vice-versa. Because a payment system involves joint supply, one party's actions can affect the profits of the other party. For example, if an issuer promotes greater use of a payments system by customers then this increases the use of that payments system and benefits acquirers. The interchange fee is a useful means of ensuring that the externalities that arise because payment systems involve joint supply by distinct parties are appropriately internalised by one party or the other. Without some means of resolving these externalities and aligning the interests of the parties that jointly supply the payments instrument, the payments instrument is likely to be under-utilised.

> An interchange fee can help to resolve this dilemma. Provided at least one of the participants perceives benefits in excess of costs, there is scope to share the benefits with other participants through a transfer mechanism. Suppose that merchants are convinced that there are substantial benefits from accepting credit cards but card issuers are reluctant to participate in the network because of high issuing costs. In these circumstances, merchants would be willing to pay a higher merchant service fee, enabling acquirers to

> capture some of the merchants ' net benefits and increase their revenue. If some of this additional revenue can be transferred to issuers, issuers will be more likely to participate. The transfer mechanism is the interchange fee. In this example, the interchange fee would be paid by credit card acquirers to card issuers. Acquirers will only be prepared to pay interchange fees to issuers, however, if their revenue from merchant service fees exceeds their costs *and* the interchange fees (Table 3.2). (p.26)

This is a very similar approach to that taken by ourselves.[1] Also, the Study sees benefits arising from the alleged 'price fixing' in terms of the agency arrangements arising in card associations.

> ... their strengths are that they can make negotiations on interchange fees much easier to achieve. For instance, even if a merchant could negotiate an interchange fee directly with issuers of credit cards, the large number of negotiations would make this very difficult; an acquirer representing a number of merchants is also likely to have greater bargaining power than an individual merchant. Similarly, issuers negotiating interchange fees on behalf of a large group of cardholders might be expected to obtain a better deal than cardholders could achieve as individuals. If agency arrangements are to be an effective way of dealing with these difficulties, however, it is important that the agents face incentives to act in the interests of their customers. (pp.28-29)

Thus, the Joint Study supports the idea that uniformity in interchange arrangements is desirable even though this only occurs for credit card associations.

The Joint Study then goes on, however, to suggest that the use of the interchange fee to align the interests of different parties would only be required during the 'start-up phase' of a payment system. Once the system is established, such a role for the fee, according to the Study, would disappear. This claim is not supported by formal economic argument and, at the very least, is unsupported by the evidence that for both debit and credit card associations, at least one type of provider has costs in excess of its revenues (not including interchange payments).

Even if an interchange fee was not necessary for the operations of a payments system, this does not mean that the existence of an interchange fee or its level is a problem. The Joint Study addresses this issue in section 3.3 with a discussion of the research of Frankel (1998) and Rochet and Tirole (1999).[2] The Study notes the argument that interchange fees for one payments instrument (e.g. credit cards) might be set too high if this leads merchants to charge higher prices for transactions involving other payments instruments (e.g. cash). This argument critically depends upon both the existence of a no-surcharge rule and a lack of retail competition.[3] It is also important to note that the arguments of the Joint Study are relatively soft.

[1] See our report "The Role of Interchange Fees in Credit Card Associations: Competitive Analysis and Regulatory Options," prepared for the National Australia Bank (September 2000).

[2] We note that the Study cites the old version of the Rochett and Tirole paper. The new version (dated April 2000) corrects mistakes in the old version and softens its conclusions somewhat.

[3] This issue is analysed in depth in J.S Gans and S.P King, "The Neutrality of the Interchange Fee in Payment Systems," *mimeo*., University of Melbourne, 2000.

Interchange fees ***may*** be too high. In particular, Rochet and Tirole find that when market power among issuers and acquirers is strong – as is argued by the Joint Study throughout the report – it is highly unlikely that interchange fees will be set in a way that causes a particular payment instrument to be over-utilised.

The theoretical arguments for interchange fees in say credit card associations being too high depend on the particular economic environment faced by the payments system. For example, they depend on a lack of retail competition, high issuer and acquirer competition, and high merchant benefits from card use. The policy conclusions of the Joint Study are based on an assumption that these conditions actually hold. However, no evidence is provided. Indeed, the fact that credit card use is relatively low in Australia compared with elsewhere suggests that the opposite conditions hold. Consequently, we find the Joint Study making strong policy recommendations based on a purely theoretical analysis that is relatively weak. Moreover, it does this without any attempt to consider whether the economic conditions supporting their strong conclusions actually hold or do not hold.

This lack of analysis is most obvious when we consider the Joint Study's approach to the relevant market for each payments instrument and the competitive constraints facing each instrument. Put simply, there is no direct analysis of this type and where there is indirect analysis it appears to be completely ignored in the policy conclusions.

To see the importance of market definition and the failure of the Joint Study to consider substitute payment instruments, recall that credit and debit cards represent only two of the types of payment instruments available to consumers. They also have available cash, cheques, direct account transfers and cards from closed associations such as American Express and Diners Club. Moreover, the banks that provide cheques and direct account transfers also offer debit and credit cards. To the extent that these banks have the ability to encourage one form of payments instrument over another, they will want to encourage the instrument that has the lowest costs and is the most efficient. The Joint Study, however, concludes that debit cards are a lower cost transactions instrument than credit cards but that at the same time the banks are encouraging the use of credit cards through high interchange fees. These conclusions are mutually inconsistent. If debit cards were more efficient than credit cards then the banks would raise their profits by encouraging debit cards, not credit cards. The Joint Study reaches these mutually inconsistent conclusions because they consider each payments system in isolation without formally analysing the interaction between systems.

The Joint Study's analysis is clearly incomplete and its policy conclusions are poorly based. While the theoretical discussion of interchange fees presented in the Study recognises the specific conditions and trade-offs necessary for interchange fees to represent a potential inefficiency for the economy, this analysis seems to have provided no guidance to the policy conclusions. The study leaps from a theoretical analysis of a potential problem to policy conclusions. However, there simply is

insufficient analysis to conclude there is a problem; the only evidence is that there could be a problem theoretically. Unless all payment instruments are considered together (i.e., American Express and Diners Club cannot be ignored) and there is some evidence on the plausibility of a 'cross subsidy' from cash users to card users, it is inappropriate to conclude that there is a problem with current interchange arrangements.

The most sensible recommendation, in our opinion, is that the 'no surcharge' rule be eliminated. In many respects, the no surcharge rule seems like a fairly innocuous restriction at best, and at worst might be a source of concern. However, this warrants further investigation. For example, Rochet and Tirole (2000) examine the removal of the no surcharge rule and demonstrate that it could lead to under-utilisation of credit cards. We think there may be other reasons for the use of the 'no surcharge' rule. For example, card associations spend money advertising the card brand. This advertising might help to attract consumers into the stores of merchants who carry that brand of card. This money will be poorly spent, however, if once a customer is attracted to a store, the merchant finds it profitable to encourage the customer not to use the card and offers customers a lower cash price. Thus, one possible rationale for the 'no surcharge' rule is to protect the 'deal' acquirers are making with merchants. In addition, it is not clear what would happen if the no surcharge rule was removed for card associations but was still in place for closed-loop systems. How can one be justified and not the other? The elimination of the no surcharge rule requires more analysis than has been done to date.

Access to payments systems raises a variety of interesting issues, although the Joint Study analysis is somewhat superficial. For example, resolving any problems regarding access say, for credit cards, would potentially lower issuers' and acquirers' margins and raise customers' benefits, increasing the use of credit cards relative to other payments instruments. The Study supports such reform, despite expressing the view that credit cards are currently overused.[4]

3. Assessing the Level of Interchange Fees

One of the most important parts of the Joint Study is its attempt to assess whether interchange fees are too high. Obviously, such an attempt must begin by defining the efficient level of the interchange fee. It is impossible to know if the fee is either too high or too low unless we know what is the efficient level of the fee. Unfortunately, the Joint Study does not do this. Instead, in Section 3.4, it takes the view that the interchange fee is a means of allowing those who are earning profits in a card scheme to compensate other participants who face a shortfall between their revenue and costs. This approach is based on a view that an interchange fee is only

[4] The issue of ATM networks is not one that we have examined closely at this stage. However, the issues appear to be similar to those that arise in telecommunications, where we have considerable expertise. The fact that bilateral interchange fees are high does not surprise us. We think that a form of direct customer charging and a reduction in customer ignorance regarding fee structures is likely to be a good development. Indeed, we have recommended to the ACCC that they institute similar reforms in telecommunications. However, to date the ACCC have been reluctant to institute such changes.

justified as a mechanism for sharing costs. The approach ignores any impact of the interchange fee on the overall operation of a card system. That is, the Joint Study starts from the assumption that an interchange fee is a necessary evil and that, in fact, a zero interchange fee is a clear benchmark. This assumption pervades the Joint Study's analysis: it always searches for a way to make the interchange fee as close to zero as possible. However, there is no economic basis for the assumption that zero is the desired benchmark.

3.1 Evaluating the Joint Study's Methodology

Given its importance to the Study, it is worth considering how the Joint Study attempts to quantify a desired level of interchange fee. It uses two alternative cost-based methodologies. The first approach is to identify the costs incurred by issuers and acquirers respectively. These costs are then categorised according to whether or not they can be recovered directly from the issuers' and acquirers' respective customers. The costs that cannot be recovered directly somehow form the basis of interchange negotiations. This methodology is not well defined in the Joint Study. Presumably, the costs that are not recovered directly are meant to represent common costs of the payments system. These common costs have to be divided in some way between issuers and acquirers. Given the mutually beneficial interaction between merchants and cardholders, however, any direct attribution of costs is likely to be arbitrary and difficult.

The second approach is also cost-based. It compares the costs involved in providing the payments system with the revenues obtained by issuers and acquirers. These costs and revenues might not balance. For example, with credit cards, the costs faced by an issuer might exceed the revenues received by issuers. The Study considers the interchange fee as just offsetting any shortfall to one or other provider.

The two approaches involve different assumptions regarding the role of the interchange fee. This dichotomy reflects the failure of the Joint Study to determine the basis for setting an efficient interchange fee. The first methodology implicitly allows sharing of the overall 'producer surplus' associated with providing card services. The second approach does not.

To see this, consider the Joint Study's Table 3.3:

Acquirers		Issuers	
Costs	40	Costs	100
Revenues	100	Revenues	80
Net	**60**	**Net**	**-20**

In this table, issuers face a shortfall in profits. So under the second approach, the Joint Study suggests that an interchange fee of $20 from acquirers to issuers would be appropriate, representing the minimum required to let issuers just break even.

The Joint Study does not apply the first methodology to this table but it can be applied if we make an assumption regarding the costs that can be directly charged to acquirer and issuer customers respectively. For example, suppose that all of the acquirer's costs can be directly charged to customers while only 80 percent of issuer's costs can be. This means that the residual 20 percent of issuer 's costs would be the subject of interchange negotiations. How would these negotiations proceed? The Joint Study does not tell us, but there are (at least) two alternatives:

1. *Divide costs*: the issuers and acquirers could negotiate purely over the costs. That is, they could simply divide the unattributable costs between them, for example at $10 each. This would be achieved if the acquirers pay a $10 interchange fee to the issuers. However, in this example, issuers would still not break even with this interchange fee. The only feasible negotiation in this example would involve an interchange fee of $20 paid from acquirers to issuers – the same outcome as the Joint Study's second approach.

2. *Divide the surplus*: this is the commonly assumed form of negotiations in joint venture or cost-sharing arrangements. In this situation, the two parties consider what the net surplus is from their joint supply of a service. The parties then come to a sharing arrangement that divides this net surplus. In this example, the net surplus is $40 (= $100 - $40 + $80 - $100). Dividing this would give issuers and acquirers $20 each and the interchange fee that would achieve this would be equal to $40.

This example shows that the approaches involve distinct assumptions about how the benefits of participating in a card association should be shared between issuers and acquirers. The first approach assumes those benefits will be shared between issuers and acquirers while the second assumes that acquirers will get all of the surplus while issuers should only be allowed to break even.

To emphasise this distinction further, let us amend Table 3.3 as follows:

Acquirers		Issuers	
Costs	40	Costs	100
Revenues	100	Revenues	120
Net	**60**	**Net**	**20**

In this situation, there is no shortfall for issuers. Given this, the Joint Study, following their second approach, would conclude that a zero interchange fee is appropriate. Under the first approach, using a divide-the-costs methodology, the interchange fee would depend on the proportion of issuers' and acquirers' costs that could be directly attributable to their respective customers. If we make the same assumption as above, that all acquirers' costs are directly recoverable but only 80 percent of issuers' costs are directly recoverable, then 20 percent of the issuers' costs represent the unattributable costs. If these costs were divided equally between issuers and acquirers then the interchange fee would be $10. In contrast, if all of the

costs were attributable then this approach would offer no guidance for the interchange fee would be as there would be no costs to divide.

In contrast, consider the second approach adopted by the Joint Study using a conventional divide-the-surplus methodology. The total surplus generated by the payments system is $80 so that an equal division of the surplus would lead to an interchange fee of $20. With this fee both acquirers and issuers earn a surplus of $40 each.

It can be argued that each of these interchange fees is reasonable given the figures presented in the table. This is exactly the problem with the Joint Study's approach. Because the Joint Study does not define an efficient interchange fee, it is possible to define a variety of different methodologies that each determines an apparently reasonable fee. However, each of these approaches is arbitrary and can provide no guidance for policy involving economic efficiency. For example, if the interchange fee has a role in aligning incentives in a card association, then altering the interchange fee will alter incentives and may raise or lower economic efficiency. The methodologies used by the Joint Study, however, are not based on a framework of economic efficiency and so they neglect any role of the interchange fee as an instrument to alter card participant behaviour. To the Joint Study, the interchange fee is simply an arbitrary means of cost recovery; thereby, de-emphasising the important influence it may have on incentives of acquirers and issuers.

3.2 Methodology as Applied to Credit Card Interchange

We turn now to consider the Joint Study's actual application of their methodology. In Section 5.1, the Joint Study uses data collected from banks to determine what they regard to be the efficient interchange fee for credit cards. There are, however, two substantive problems with their application. First, as noted earlier, the methodology is based on the assumption that an interchange fee as close as possible to zero is always preferred. This means that under the Joint Study's approach credit card issuers will just break even while acquirers will receive all of the net surplus from the system. There is no economic justification for this division of the surplus. Further, such a division is essentially unfair and at odds with normal business practice and economic policy.

The second problem is the omission of loyalty scheme payments from issuers' costs (or revenues). The Study claims:

> The continuing drive for new cardholders – particularly through the inducement of loyalty points – is one sign of the margins available in credit card issuing. Loyalty schemes are not included in Table 5.1 because they are not a resource cost. Card issuers pay an average of $0.46 per transaction, and a range of $0.30 to $0.62 per transaction, for benefits provided to cardholders in loyalty schemes. (p.44)

We disagree with this statement. Loyalty schemes are real costs to financial institutions and are real benefits to consumers. They represent actual payments made by issuers to other organisations (namely, airlines) and also items that are actually used by consumers who take into account the extent of these schemes when deciding whether to hold or use credit cards. Hence, they play the role of a negative price that one would expect to see when competition among issuers is intense.

An appropriate application of the Joint Study's own methodology (regardless of approach) should take into account the payments made by financial institutions for loyalty schemes. These should either be added to costs or removed from revenues because loyalty points are effectively a negative price to cardholders. If this is done the 'mark-up' for issuers falls from $0.76 to $0.30 per transaction representing a mark-up of only 15.54%. Notice that *this is precisely the competitive return that the Study sees as appropriate for card issuing* (p.46)!

Loyalty payments are not the important cost that is neglected by the Joint Study. For acquirers, economies of scale and risk in investment are neglected. As a result, acquirers' costs are understated by the Study. Nonetheless, remembering that the Study's second methodology sets the minimum viable interchange fee for issuers, once loyalty scheme costs are included it appears that, if anything, interchange fees should rise. This said, we must emphasise that we do not believe that the approach adopted by the Joint Study is the appropriate methodology for determining interchange fees.

The Study then considers its first approach to interchange, viewing those fees as the costs that issuers should be able to recover from customers. The Study only examines issuers and not acquirers even though they too may have some unattributable costs. By focusing on issuers alone, the Joint Study makes an implicit assumption that issuers should break even and all acquirer costs are attributable. Nonetheless, even under these strong assumptions, the Joint Study finds that this approach would justify only a modest reduction in interchange fees.

Apparently, because of this result using the first methodology (although this result is not referred to in the executive summary nor conclusions of the Joint Study), more weight is placed on the outcome of the second methodology. On this basis, the Study (p.51) concludes that the interchange fee should be set to $0.19 because this is equal to the difference between issuer revenues ($1.78) and issuer costs ($1.93). As we have already noted, these figures neglect the loyalty payments. Including these payments would increase the interchange fee by $0.46 to $0.65.

Remember, however, that even under this interchange fee, issuers would just break even. As noted above, there is no economic justification for such an allocation

of costs and revenues. Alternatively, consider a more equitable distribution of the surplus generated by the card system. If we consider acquirer costs and revenues, it appears the interchange fee could rise to $1.35 before acquirers would make a loss. This represents the maximum possible interchange fee. A fair division of surplus would involve an interchange fee in the middle of the lower bound of $0.65 and upper bound of $1.35; that is, $1 exactly!

Elsewhere the Joint Study calculates that the average interchange fee is about $0.95 per transaction. Thus, our calculation, that changes *only* two features of the Joint Study's approach (the inclusion of loyalty payments as costs and a fee based on a fair division), leads to a fee that is slightly above the current interchange fee.[5] This suggests that, on the basis of their own costs and revenues, the Study would have derived that *the current interchange fee is the appropriate outcome of a fair division of costs between cardholders and merchants!*

The Study appears to want to use this evidence to change the interchange fee and to effectively raise prices to cardholders. They believe that the negative price set for cardholders through loyalty schemes indicates overuse of credit cards. This conclusion is not obvious. Further, the Joint Study is concerned about is the potential for 'cross-subsidisation' when cardholders paying the same price to merchants as cash customers. As we noted above, the potential for cross subsidisation, due to the no surcharge rule, has been noted in the economic literature. The Joint Study, however, does not collect any evidence on the extent of any cross subsidy that may have allowed it to support its conclusion that this cross subsidy was an important inefficiency resulting from current arrangements.

3.3 Methodology as Applied to Debit Card Interchange

Debit card networks work a little differently to credit card schemes. On the one hand, they are 'cheaper' as there are no risks of non-payment. On the other hand, there are additional costs associated with verifying transactions (i.e., when a network goes down, debit card networks cannot operate at all). This additional cost suggests that it may be more difficult to charge a merchant to utilise debit card rather than credit card facilities, as the merchant risks customer inconvenience. Compared with credit card networks both customer and merchant benefits from debit cards are likely to be lower.

The other difference between debit cards and credit cards is that interchange fees are bilaterally negotiated with debit cards. This makes it less likely that such fees will be set at an efficient level. We have indicated this in our earlier report.

A final feature of debit card networks is that large retailers can integrate into acquiring. This will serve to lower merchant service fees that those retailers pay relative to credit card networks.

All this adds up to an interchange fee that is 'negative;' being paid from card issuers to acquirers. The Joint Study is perplexed by this. However, when you think

[5] If you thought instead that the percentage over costs for issuers and acquirers should be equal (rather than costs per transaction) the interchange fee would be higher as issuer costs exceed those of acquirers.

about it, as merchant benefits are lower relative to customer benefits, there are fewer issuer risks and there is potentially more acquirer competition, it is not surprising that a fair cost-sharing bargain might involve issuers compensating acquirers in this instance.

Once again, the Joint Study tackles the interchange fees using their two approaches. The first – cost recovery approach – again suggests a lower interchange fee. But the Study is cautious in concluding anything from that approach. On the second approach the Study shows that acquirers have a shortfall of -$0.14 (= $0.12 - $0.26) per transaction while issuers make $0.05 (= $0.20 - $0.15) per transaction. This time, however, the data suggests that the debit card system as a whole is not jointly profitable as joint revenues do not exceed joint costs. So if an interchange fee greater than $0.05 is paid from the issuer to acquirer, issuers will not break even (which they do not do given the current interchange fee of about $0.2 per transaction). In any case, it is not possible to have both issuers and acquirers break even based on these figures. An equitable sharing of losses would require an interchange fee of about $0.09 - 0.10 per transaction.[6] What this suggests is that issuers are able to recover costs in other ways not considered in the study. It also suggests that the scope for lowering interchange fees (making them more negative) will be limited.

Nonetheless, the Study concludes that the interchange fee should be raised to zero. This will make it more likely that consumers will use debit but less likely merchants will offer debit facilities. To the extent that fewer merchants offer debit card facilities under a zero interchange fee, such a fee might diminish the operation of the debit card network.

4. Conclusion

In their concluding section, the Joint Study argues that interchange fees for credit card associations should fall. In particular, the Study states that interchange payments should:

- not overcompensate financial institutions for the costs that they incur; and
- be subject to regular review as costs and other conditions in the relevant payment network change. (p.73)

Interestingly, the first of these dot points is inconsistent with the Study's actual approach. The Joint Study in determining how interchange fees should be set allows acquirers to be overcompensated while issuers just break even. In contrast, it would seem reasonable for fees to be set on the basis of a fair division of surplus at the very least.

The Joint Study approach to interchange fees is based on a narrow consideration of the costs of each particular payments instrument. Moreover, the Study does not consider the interaction between payment instruments. Different payments instruments are substitutes and altering the prices associated with one

[6] That is, total losses are $0.09 per transaction; so if both issuers and acquirers were to lose $0.045 per transaction, issuers would have to pay acquirers $0.10 or $0.11 per transaction.

instrument will affects the use of other instruments. Similarly, the Joint Study never considers beyond a superficial level the relationship between the different fees and charges associated with a single payments instrument, including the retail prices set by merchants. In the Joint Study's analysis, retail prices, merchant services fees and card-holder charges are simply taken as given. But changing the interchange fee will lead to changes in all these other prices. It is impossible to even consider an efficient interchange fee without recognising and analysing the interdependency between retail prices, the fees set for the relevant payments instrument and the demand and supply of alternative payments instruments.

The Joint Study avoids the important economic issues by focusing on a simplistic cost-based analysis. Even so, the Study ignores some payments and, when faced with conflicting results, appears to pick the result that is in line with the underlying and unjustified assumption that a zero interchange fee is an efficient benchmark.

The Study concludes that credit cards are overutilised relative to debit cards. This is based on the finding that the costs of providing credit cards are higher than those for debit cards. However, one also has to consider the revenues from each. Credit card customers appear to be willing to pay more to use them than for debit cards. Indeed, on their own calculations, debit card networks are making losses. Thus, the difference in costs does not necessarily translate into economic efficiency if consumers prefer to use credit over debit cards and pay for their choice.

Even if the relative use of debit and credit cards was viewed as a problem, there is no clear analysis in the Joint Study to show that interchange fees or access issues are the critical policy variables that would re-dress this problem. Of course, this is simply one example of a problem that underlies the entire Study. At no point does the Study show that there is a problem with interchange fees or what would be the basis of an efficient fee. While the Study refers to relevant economic literature that notes the potential problems of interchange fees, the Study avoids the difficult - but necessary - task of determining if the conditions for these theoretical problems exist in Australia. Without such analysis, the Joint Study is working in a vacuum. It does not know if there is a problem and it does not know how to fix it.

Because the Joint Study does not consider the interaction and substitution between different payment instruments, its conclusions, at best, are incomplete. For example, if interchange or access leads to the overuse of credit cards, how does this explain the continued survival of closed-loop systems? Surely these schemes should be driven out of the market. Instead, they survive with what appears to be higher cardholder fees, interest rates and merchant service charges and the use of 'no surcharge' requirements and other problematic instruments.

We are left to conclude that the Joint Study is too incomplete to provide useful policy guidance. In particular, its conclusions are based on tenuous analysis that could not be used as a basis for broad scale regulation of payment systems. At the very least, some greater depth of international comparison is required along with market analysis of the degree of substitution among payment instruments (including American Express and Diners Club). Until that is done, the Joint Study's evidence

points to the lack of a serious policy concern and potentially supports claims that current arrangements are appropriate and relatively efficient.

COMPARISON OF DOMESTIC CREDIT CARD INTERCHANGE RATES

	Visa		MasterCard	
	Electronic	**Paper or Card Not Present**	**Electronic**	**Paper or Card Not Present**
Asia				
- Australia	0.80%	1.20%	0.80%	1.20%
- New Zealand	1.10%	1.50%	1.10%	1.50%
Europe				
- United Kingdom	1.00%	1.30%	1.00%	1.30%
- Ireland	0.95%	1.25%	0.85%	1.20%
Americas				

Notes

1. As of 31 October 2000

2. Excludes domestic value added taxes, such as GST/VAT

3. In Australia, domestic electronic transactions up to **10:00pm** are credited to the merchant's account for ***same day value*** (next business day for weekends and public holidays).

   In most other countries, there is a two day settlement delay before sale proceeds are deposited to the merchant's account.

CHAPTER 4: BUILDING BLOCKS OF A NEW STRUCTURE

4.0 INTRODUCTION

In what follows, the National's approach is to set out broad objectives, rather than precise formulation of legislative or regulatory changes. Indeed, it is essential to have a "model", incorporating "guiding principles", which can be used to evaluate specific changes from a competitive and supervisory perspective over any transitional period.

4.1 PROMISES - TIME AND PERFORMANCE

At its most basic level, the financial system can be thought of as comprising a number of "promises". Each of those "promises" in turn, has two key dimensions:

- a time criterion: i.e. from the investor's (or holder of the promise) viewpoint, can the promise be translated into cash (or exchanged of value) on demand, or does it have a pre-specified time path (fixed term investment). Associated with this, is the nature of the promise; i.e. is it "unconditional" with respect to time (e.g. debt/equity type instruments) or is it only payable given certain pre-specified criteria regardless of time (e.g. general insurance and income protection); and
- a performance criterion: is the instrument's "performance" set by some pre-determined formulae (e.g. interest), or is it purely on a "best endeavour" basis (e.g. investment linked products). Associated with this, does the instrument include a "capital guarantee" dimension, or is it "buyer beware"?

Although the above examples mainly refer to business and household investment-type decisions, the same criteria apply equally to their funding decisions. In addition to these, time and performance criteria, financial instruments also provide different "types" of promises.

The following table provides one (but by no means the only), schema to differentiate according to the nature of the services delivered by financial promises:

Table 4.1

Financial Functions

Function	
• Income Risk Management Promises	
• Saving Promises	
• Exchange of Value Instruments	physical: e.g. cheques / cash electronic: stored value / EFTPOS / smart card/ direct entry/ charge card/ electronic "online" cash market related: forex / derivative instruments that fall due for payment
• Debt Instruments / Promises	
• Equity Instruments / Promises	
• Asset Related Risk Management Instruments / Promises	

In the past, these services have initially been delivered by a financial instrument from a financial institution. Table 4.2 below, highlights the traditional positioning of financial institutions in that regard.

Two points, however, need to be re-emphasised when looking at this table:

- as noted previously (see Chapters 1 and 2), there has been a good deal of blurring in the traditional "niches" occupied by financial institutions; and
- very importantly, market-related financial instruments now play an increasingly significant role in just about every aspect of these functions.

Thus, market-based instruments already:

- play a significant role in the exchange of value process (see table 4.1);
- provide alternative ways of taking exposures to price movements in financial instruments (e.g. equities);

Table 4.2
A Simple Illustration of Functions, Offerings and Institutions

Functional Building Blocks Meeting Cashflow/Risk Management Needs	Examples of Current Offerings	Traditional Institutional Positioning
Market-related risk management	Interest rate & Currency Derivatives	Market & investment advisers
Liability related risk management	Life Insurance,	Life & Insurance Company
Term Saving/Investments	Unit Trusts, Managed funds- i.e. prospectus based	Superannuation fund manager and/or Finance Company.
Term Saving/Investment	Term deposits no prospectus	Bank, Building Society, Credit Union
Call Saving/Transactions	Passbook, Transaction Accounts, ATM	Bank, Building Society, Credit Union
Exchange of value	Cheque/ Cash/ EFTPOS	Bank
Debt — Intermediated (indirect)	• Overdrafts, Credit cards, Term Loan Leasing, Mortgages	Banks, Building Society/Credit Unions, Finance Companies.
Debt — Disintermediated (Direct)	• Company Debentures, Community paper, Securitised assets	Market, brokers , investment advisers
Equity	Shares	Market, brokers, investment advisers
Asset-related risk management (Asset protection)	Car, Fire, Mortgage, Creditor Insurance	General Insurance Company

- provide ways for changing the terms and conditions of underlying financial promises (e.g. fixed/variable swaps); and
- provide alternative means to "pool funds", to be used in the disintermediation process (Securitisation). However, this has not yet extended to some of the more "opaque" debt instruments (such as, small business debt).

4.2 A HIERARCHY OF BURDEN

Clearly, at the functional level, there is a hierarchy in the burden of the promises attaching to financial instruments. Thus, for example, a promise to pay a specific sum on demand is more onerous on the promisor, vis-à-vis, a promise to generate an income stream based on a "best endeavours" basis deliverable some time in the future. Typically, the most onerous promise (full payment on demand) is also the basis for settlement of trade and, as such, can have widespread consequences if dishonoured - precipitating default spreading from one party to the next. This phenomenon of financial contagion is the one most likely - if allowed to go on unchecked - to generate a lack of confidence in the overall stability of the financial system - and hence, large-scale economic disruption.

In many ways, the risk of financial contagion is inherent in aspects of the intermediation process. Intermediaries reduce the need for a lender to acquire information about borrowers, as depositors rely on the intermediary's judgement. By pooling the risk of withdrawals of funds, intermediaries increase liquidity and can also hold a portfolio of assets which are less liquid than their liabilities. These processes are fundamentally built on trust. Loss of confidence or trust will clearly impair the process of financial intermediation. The critical element, however, is not so much the failure of an individual intermediary, but the danger that the repercussion of failure spreads well beyond that intermediary.

From the above description, it is obvious that key elements of this process are:

- liabilities of financial intermediaries that are readily convertible (face value demand deposits); and
- liabilities of financial intermediaries that can serve as a transaction medium.

In terms of Tables 4.1 and 4.2, this is very much encapsulated by instruments for exchange of value and very liquid savings/transaction accounts - indeed, put slightly differently, these

could be redefined as a liability that is withdrawable within 24 hours and/or may be paid to, or used by, third parties on the instruction of the depositor.[7]

The other feature of the above process that adds to the risk of financial contagion is the presence (on the balance sheet of the same institution) of substantial assets that are not liquid - or at least are not redeemable without substantial discount. The combination of the above three features is, of course, very much a feature of "banks'" balance sheets - and explain the particular emphasis placed on banks by regulators with a view to avoiding systemic risk.

It is, however, possible to re-design a financial system that separates out the combination of highly liquid demand and transactional liabilities from illiquid assets. Indeed, Merton and Bodie[8], arguing along purely functional lines proposed a solution that involves:

- any institution wishing to offer highly liquid demand and transactional liabilities be required to back them up, on a dollar for dollar basis, against Government securities;
- a set of alternative rules - based on purely functional grounds - governing other liabilities and assets (a la Table 4.1); and
- minimal (supervisory) intervention by governments - mainly focused on improving disclosure of information.

While it is highly likely that such a system would satisfy a "purely functional" outcome and would be "relatively safe" as regards systemic risk, it would also:

- as pointed out by Kaufman and Benston[9], lead to significant allocative inefficiencies in the intermediation process. That is, the cost of such a regime on institutions who typically provide such services would make it unlikely that they would be as willing to enter into the more "opaque" and riskier forms of debt funding - such as to small business and personal loans. (The National, for example, would be required to hold around $25 billion of government securities to support its current activities.) Here, it could also be noted that

[7] See, for example, E. Gerald Corrigan, then President of the New York Federal Reserve Bank, in "Keep Banking Apart", Challenge November/December (1987).
[8] See (1) and Merton, RC and Bodie, Z "Deposit Insurance Reform: A Functional Approach", Carnegie-Rochester Conference Series on Public Policy 38 (1993) pp. 1-34.
[9] Kaufman, George G and Benston, George J, "Risk and Solvency Regulations of Depository Institutions: Past Practice and Current Options", New York University Graduate School of Business Administration (1988).

financial instruments are unlikely to provide effective alternatives, given the very nature (opaqueness) of such lending; and

- effectively implement "narrow" banking and, among other things, mitigate the need for banks. As such, it would represent a radical departure from financial structures currently (and prospectively) in operation in offshore financial markets - and could well cause Australian financial institutions to be treated with a good deal of scepticism by offshore regulators and monetary authorities.

4.3 A PRACTICAL VIEW - NATIONAL'S RECOMMENDATIONS

Ultimately, what the above means is that the objective of maximising dynamic and static efficiency, while maintaining confidence in the underlying stability of the system, inevitably (as argued by Corrigan[2] and many others) involves compromises. That, of course, is not the same as arguing for maintenance of the status quo. Indeed, as argued earlier the "no change" option does not exist, given the pressures already (and increasingly) generated by the global, technological and consumer drivers of change.

The "compromises" that the National is advocating could be described as attempting to narrow the differences between the treatment of like financial products, but critically opening up to all an ability to participate in any part of the financial system, provided certain entry criteria are met - with the latter, in turn, set very much with a view to maintaining confidence in the integrity of the Australian financial system.

Among other recommendations, these changes include the introduction of financial conglomerates, where the holding company is a non-bank financial institution and allows for non-bank participation in the payment system. The current "special" position of banks in the financial system should be very much thrown open to competitive pressures. The resultant increased contestability of markets means that regulatory and competitive definitions of banking need to be broadened significantly. That in many ways is moving the existing financial framework to make it more compatible with the emerging market reality. These changes, in turn, suggest the need for some streamlining of supervision and structures that deliver practical co-ordination of the regulations of financial institutions and regulators. The National is also advocating greater "ex-ante" disclosure of information by all financial

institutions (both as regards financial products and the institutions that stand behind them) and the introduction of functionally-based training criteria for staff of financial institutions.

Given greater contestability of financial markets, it also follows that current taxation arrangements (including FID and BAD), that distort the pattern of the flow of funds between competing financial institutions and products, need to be normalised.

4.3.1 National's Proposals

We turn now to the details of the National's proposals.

Table 4.3 below provides a brief overview of the current restrictions on financial institutions, and as such serves as something of a benchmark for the following discussion.

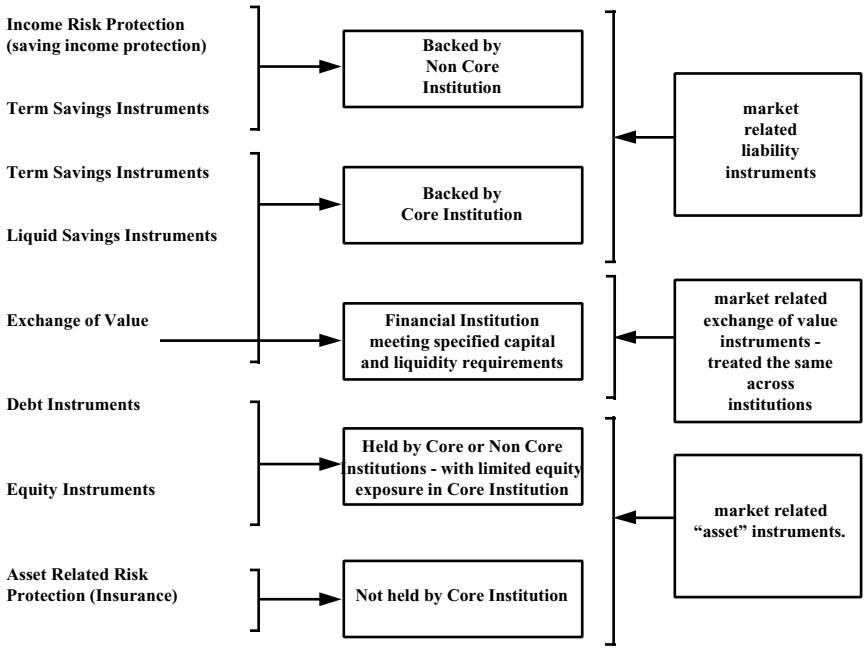
From the previous discussion, it is clear - from a systemic viewpoint - that a good deal of attention needs to be placed on maintaining the integrity of institutions that wish to participate in the areas of exchange of value/transactional accounts and of demand (fixed face value) saving instruments. The new schema advocated by the National is set out in Table 4.4.

Table 4.3: Comparison of Existing Regulations

	Legal Structure				Ownership		Prudential Requirements				
	Limited Liability Company	*Co-operative*	*Mutual*	*Trustee*	*Restrictions on Concentration* ①	*Cross-Ownership Restrictions*	*Risk weighted Capital Requirements*	*Liquidity Requirements*	*Exposure Limits*	*Accept Deposits without a Prospectus*	*Accept Deposits on Balance Sheet*
Banks	✓	×	×	×	✓	✓	✓	✓	✓	✓	✓
Non-bank Depository	✓	✓	✓	×	✓	✓	✓	✓	✓	✓	✓
Non-depository Non-bank	✓	✓	✓	✓	×	×	×	✓	✓	×	×

① *Banks: Individual equity holdings are restricted to a maximum of 15%. Unless approval is granted by the Commonwealth Treasurer.*
Non-bank Depository Institutions: Individual equity holdings are restricted to a maximum of 10%. Applies only to non-mutual building societies.
Banks: Require approval to hold significant equity in any company (bank or non-bank).
Non-bank Depository Institutions: Require approval to hold significant equity in any company (bank or non-bank).
Banks: Require a minimum risk-weighted capital ratio of 8%.
Non-bank Depository Institutions: Require a minimum risk-weighted capital ratio of 8%.
Banks: Require a prime assets ratio (PAR) of not less than 6% and non-callable deposits held with the Reserve Bank of not less than 1% of total liabilities less shareholders funds.
Non-bank Depository Institutions: Must satisfy emergency and operational liquidity requirements.
Non-depository Non-banks: Must satisfy minimum liquidity requirements - where they apply
Banks: Must not exceed maximum exposure limits on lending without approval.
Non-bank Depository Institutions: Must not exceed maximum exposure limits on lending without approval.
Non-depository Non-banks: Must not exceed exposure limits prescribed in prudential standards -where they apply.
Non-depository Non-banks: Provided it is a registered superannuation fund.
Depository Institutions have recently been allowed to accept some deposits (RSAs) on balance sheet.
Non-bank Depository Institutions: Can issue cheques in association with a bank or through an industry based special service provider
Non-depository Non-banks: Can issue cheques in association with a bank.

Table 4.4



As can be seen from Table 4.4, the National is advocating a dual track approach in the area of exchange of value - that is, either via a"core institution" or a financial institution meeting specified capital and liquidity requirements.

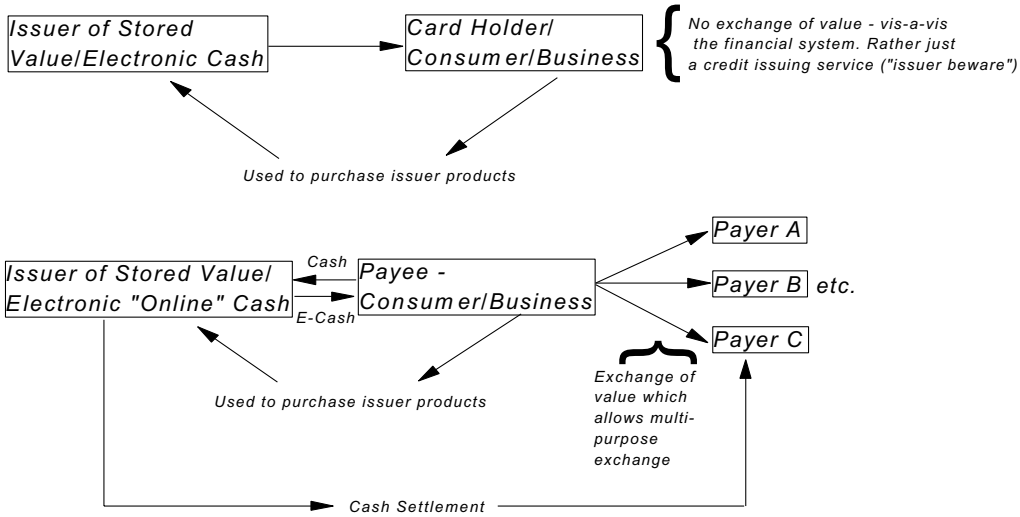
4.4 PAYMENTS SYSTEMS

Before moving on to these issues in more detail, it is first necessary to define more precisely what we have in mind in the area of"exchange of value". Essentially, it is a mechanism that allows/facilitates payments to third parties.

The main payment systems we are familiar with today are: cheques, cash and, increasingly, EFTPOS as a means of exchanging value (with the need to have settlement processed through banks and a limited number of industry providers, with exchange settlement accounts held at the Reserve Bank of Australia); and the charge card systems, which facilitate payments to a defined range of third parties, but without the cross-institutional settlement requirements. It is widely expected that usage of smart cards and on-line electronic payment platforms will

increase dramatically (see Chapter 2). Aspects of that process, however, could have profound systemic implications. In essence, electronic cash "represents a return to privately issued currency"[10] to the extent that they provide a multi-dimensional exchange of value facility as illustrated below:

Figure 4.1: Payments Systems



To date, we have enjoyed stable and secure payment systems in Australia. This has revolved around the fact that the majority of payment value has passed through payment providers who:

- are prudentially supervised deposit taking institutions; and
- with clearing and final cross institutional settlement regulated and closely controlled.

Payment providers that fall outside of the above have been largely comprised of charge card schemes. These schemes have focussed on the large volume, small value transactions end of the market, hence the financial risk involved has been comparatively low. They provide third party payment capability for their cardholders, however, payees/merchants must have a contractual arrangement with the payment provider. Settlement and clearing, therefore, occurs directly between the payment provider and the payee/merchant.

[10]See Harper, I.R. and P. Leslie, Working Paper 7, Melbourne Business School, October 1994, p18.

It is in this latter, unsupervised environment that the new technology driven electronic payment systems will develop and prosper. Efficient and convenient communication channels will facilitate providers of such systems being based either on or offshore.

The traditional view is that as no cross institutional settlement is involved, then systemic risk is non-existent. We consider that as use of the new payment systems extends into satisfying business trade needs and cash substitution escalates, accumulated value in the system/s will increase significantly to the extent that failure of such schemes/providers would have a detrimental effect upon the overall stability of Australia's payment infrastructure and public confidence in the electronic medium involved.

The monetary value of the risk is the amount owing by the payment provider to the participants, i.e. value due to payees for unsettled transactions and/or value held on behalf of payers (e.g. stored value, electronic online cash). Clearly, if growth in these electronic payment systems is anywhere near what is expected, rules need to be established: either as to which set of institutions are allowed to issue these instruments[11]; or, the level of capital and the integrity of the systems required, before a non-core financial institution is allowed to issue such instruments.

4.5 CORE INSTITUTIONS

Returning to our new schema, Table 4.4 above introduced the concept of a "core" institution. The rationale for such an institution derives out of the need to have a set of institutions dealing in the exchange of value and at call savings areas that can be perceived by the public to be subject to more comprehensive supervisory standards with both capital and liquid resources to back them up. Also, if we are to participate in international financial markets, there will inevitably need to be a concept approximating a "bank". Extending the liability side of core institutions to include "term" saving instruments, would to a large extent, achieve that objective. The differentiating feature between saving instruments in core and non-core

[11] The Working Group on European Union Payments Systems (WGEUPS) 1994 Report to the Council of the European Institute on Prepaid Funds, for example, recently concluded "[i]n economic terms, it is clear that the money received by the issuer of an electronic purse is a bank deposit. It is indeed a claim which the card-holder (or account holder) has on a third party and which can be used to make cashless payments to a wide range of providers of goods and services. Such deposits contrast with deposits which are payments in advance for which the range of goods or services to be purchased is well defined and limited in scope. Therefore, in economic

institutions would be in relation to the treatment of the depositor, should the core or non-core institution experience difficulties (see below).

To be registered as "core" an institution, would be required to:

- hold a fixed proportion of its liabilities "at call" with the central bank. This criteria is essentially a liquidity buffer. At present, this function is partly met by the NCD requirement - although, the payment of sub-market rates for these funds relates more to fiscal or revenue raising objectives than a true liquidity instrument [and this aspect should be abolished]. While the exact level of the liquidity buffer should be determined by the appropriate supervisor, a requirement of around 1 percent of liabilities minus shareholders' funds would not be unreasonable;

- hold an additional fixed proportion of non-shareholder liabilities in "near cash". To leave no doubt that the purpose of the requirement is to stand behind the core institution's exchange of value, liquid savings and term saving instruments, it would be inappropriate to calculate such a ratio on the asset side of the institution's balance sheet (as per the current PAR regime). Also, reflecting the increasing international dimension of financial markets, "near cash" should include not only Australian Government securities, but also government securities of major OECD economies (e.g. G-7 economies). Again, while the exact level of the "near cash" requirement should be determined by the appropriate supervisor, a figure of around 5 percent of liabilities less shareholders' funds would not be unreasonable;

- hold capital of at least 8 percent of risk weighted assets. The holding of capital is the ultimate link between the liability side of the core institution's balance sheet and its assets. The level of capital should be set at acceptable international standards - currently 8 percent of risk weighted assets. While Australian experience suggests that the current risk weights should be reviewed, that is probably best done in an international context, rather than in isolation. That said, the National would suggest that the Inquiry recommend that the Australian authorities raise with the Bank for International Settlements (BIS) an alternative set of risk weights that, inter alia:

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terms, the reasons which led public authorities to reserve deposit-taking to a specific category of institutions should also apply to the issuers of electronic purses".

- lowers significantly the risk weights on housing (currently 50 per cent to no more than 25 per cent); and
- provides for greater differentiation between "graded" debt and other debt (it makes little sense to risk weight the debt of an AAA graded company the same as an ungraded corporate or small business debt);

- the core institution also must have ready access to new capital via the market;

- the main restrictions on the asset side of the balance sheet of a core institution would be:

  - prohibition on the carrying of "insurance" products on the balance sheet. That restriction basically reflects the different nature of insurance risk (and is commonly recognised as such in most overseas countries) see Chapter 2;
  - limitations on the core institutions' ability to take on direct equity. This could be set at a maximum ratio (perhaps 10%) of shareholders' funds;

- the core institution is subject to the most comprehensive supervision of any financial institution but the focus of the supervision moves from "prescriptive" to an "inter-active" nature and greater public disclosure. This would involve some streamlining of existing regulatory returns.

- the core institution would be required to have a diverse ownership structure (not more than 15 percent of the capital held by any one stockholder). Also, there would be a limit on large exposures (as per current 'bank' regulations). Normal corporate rules for directors would apply. In the first instance, the appropriate enforcer of these criteria would be the relevant supervising body, albeit "on behalf" of the Treasurer (with the latter maintaining a power of discretion).

In return, the core institution:

- has automatic - but not monopolistic - access to the system of exchange of value;

- will, like banks today, have some features that provide an additional element of security to the public:

in a more market-oriented financial system, it is not appropriate for the Central Bank to provide either an explicit or implicit, depositor guarantee. Accordingly, it is the National's view that explicit reference to depositor protection be removed from the Reserve Bank Act.

Core institutions will continue to have the ability to raise savings from the public without a prospectus (see below).

Instead, the monetary authorities' undertaking to core institutions should be restricted to:

- an undertaking that the relevant supervisor will oversee the tidy exit and/or wind-up of the assets of any core institution should it experience difficulties; and

- as part of that process, depositors of core institutions will have the "first call" on the assets of that institution - a right not extended to borrowings by other financial institutions.

Thus, referring back to Table 4.4, the difference between a savings instrument in a core and non-core institution relates to the nature of the "guarantee" given to the capital component of the savings investment. In principle, a savings investment can be thought of as involving a capital component held with a financial institution which, in turn, generates an income stream. That income stream, in turn, can be determined by either referring to an interest formulae or one based on exposure to the equity market, commodities, property or a balanced portfolio. However, only in the core institutions does the depositor get the additional security of the "first call on assets". In that context, the Government's proposed treatment of retirement savings assets would fit well within the core institution model.

Clearly, the above structure for core institutions is closely related to existing bank structures. Indeed, consistent with the National's guiding principles of efficiency and international acceptance, the maintenance of bank-like structures remains highly desirable. The more important matter is to provide the means to facilitate more competition into all aspects of the financial system.

4.6 EXCHANGE OF VALUE

For non-core institutions the requirement to issue directly term savings instruments will depend on the type of product, as set out in Chapter 7. Beyond that, the degree of burden in issuing prospectus' should be significantly reduced and in time removed (to be replaced by our suggested disclosure regime).

An important example of increasing competition, as noted earlier, is our proposition that non-core institutions be allowed to participate in the payment or exchange of value system. Given the systemic implications involved in this part of the financial system, a number of safeguards must be implemented. These include:

I. Any participant in exchange of value must be an Australian registered financial institution, thereby allowing it to come under the auspices of a relevant financial supervisor. (A similar requirement - called Regulation K - was recently introduced in the USA to provide for the same concerns[12]);

II. The financial institution must be adequately capitalised. As the institution may not have "assets" on its balance sheet, this requirement is most likely to take the form of a lump sum capital (possibly $50m or more). Although this may provide some grounds for re-consideration in relation to special service providers (such as, CUSCAL), the current system seems highly arbitrary, in that it allows some mutuals direct access to the payment system on the basis of the financial position of their industry, but larger, better capitalised stand-alone mutuals, such as AMP, National Mutual, etc. are excluded;

III. In addition, given the systemic implications, it is vital that these institutions have an ability to meet demands on the liquidity created by payment systems (refer to Figure 4.1 above). On that basis, government (G-7 or Australian) securities should be held on a dollar for dollar basis against outstandings held on behalf of participants (payees and/or payers); and

[12] Bank Administration Institute (1996), Building Better Banks: The Case for Performance-Based Regulation, McKinsey & Company.

IV. Also, in line with its registered/licensed status, the financial institution would need to have the integrity of its payment delivery and settling procedures monitored by the relevant supervisory authority.

These changes, together with the introduction of Real Time Gross Settlement (RTGS), would contribute to significantly improving the "security" of the payment system to meet the new electronic environment, while at the same time, boosting competitive focus in those areas.

4.7 HOLDING COMPANY STRUCTURES

In addition to this reform of the payment systems, the National strongly believes that all parts of the financial system should be made more "contestable". At present, banks can compete in non-bank areas through financial holding companies - where the holding company is the bank and there are some limits on the relative uses of the non-bank subsidiary vis-à-vis the bank. The reverse, however, i.e. a non-bank fully owning a bank subsidiary, is not generally allowed.[13]

It is the National's view that **the** single change that will create the greatest improvement in contestability across the financial system - and thereby create an ability for all potential competitors to participate - would be to introduce holding company structures that allow both domestic and foreign-based financial institutions to fully own "core institutions".

The issue of how to deal with financial conglomerates, is perhaps the issue most exercising the minds of financial analysts, academics and regulators today. Some of the issues that arise include: appropriate corporate structures (e.g.. how to deal effectively with "contagion" across the group); how to ensure competitive neutrality between conglomerates and specialised participants; and on the regulatory side, who should "do it" and what is the appropriate capital/liquidity standards etc.[14] Some of these issues, including some of the key lessons, are set out in more detail in Appendix 2.

[13] Exceptions to these rules are however already arising: e.g.. the CML takeover of the SBNSW and, if it were to go ahead, the proposed Suncorp/Metway Bank merger.

[14] See for example "The Supervisors of Financial Conglomerates" A Report By the Tripartite Group of Bank, Securities and Insurance Regulations, July 1995 (the so called "de Swan Report").

Drawing on that experience, the National would advocate the following rules to be applied on a holding company which includes as a subsidiary a "core institution":

I. the holding company must be a registered Australian financial institution (and hence supervised). While ultimately it might be possible to fully integrate industry and banking, (i.e. allow industrials to have a dominant interest in the holding company), the structure proposed below, of a series of separate legal entities under the holding company, delivers nearly all the efficiencies of a diversified conglomerate - without raising the potential for conflicts of interest associated with industrials owning banking or "core" institutions.[15];

II. the holding company must have diversity of ownership (with no one owner with more than 15 percent of the capital). This, in fact, would be the same requirement as per a stand-alone core institution carried through to the holding company;

III. there would need to be a "net" large exposure limit applied across the conglomerate as a whole (possibly set at around 30 percent of total "net capital");

IV. the combination of the first two criteria above would, in isolation, exclude foreign financial corporations. That is not the aim - on the contrary, the aim is very much to encourage international competition within the domestic financial system. Thus, if the domestic holding company can trace its ownership to an offshore financial institution (not necessarily a bank) that satisfies all the other relevant criteria, it will be deemed as satisfying the conditions necessary to operate as a conglomerate directing a core institution in Australia:

- the only proviso here is that the foreign parent be consolidated on a group basis in a "BIS" consistent jurisdiction.[16]

I. on neutrality grounds, the current 50% withholding tax on foreign branches should be abolished and would not apply to the conglomerate;

[15]See Corrigan's (2) cited above, especially pages 32 - 34, and Dale R.,"Regulating Investment Business in the Single Market", *Bank of England Quarterly,* November 1994, pp.333-340.
[16]Broadly similar criteria have recently been advocated in the USA.

II. under the holding company, subsidiaries (including core and other entities) are to be structured as separate legal entities with a requirement that each entity must, separately, satisfy the specified capital, liquidity (and any other) requirements imposed by the supervisor. In addition, this should allow the holding company the possibility of operating a number of core institutions (i.e. multiple licences). There are no "funding firewalls" between subsidiaries. However, where offers are made to the public, directors of the subsidiary must satisfy the criteria of operating in the best interest of the customer - this implies that a subsidiary can fund from another's customer base, but must do so at "market" rates;

III. in addition to the separate legal structures, it would need to be clearly identified that under the holding company structure the "core" institution remains isolated "in law" from a subsidiary, should the latter experience difficulties;

I. as discussed in the next chapter, one of the key efficiency drivers in mergers and financial conglomerates is the opportunities it provides to "cross sell." To utilise this opportunity, it is vital that, while maintaining confidentiality and privacy requirements within the conglomerate, no artificial barriers remain, or are erected, to obstruct the free flow of information on customers' needs across the conglomerate; and

I. given that subsidiaries are structured as separate legal entities with a requirement that they separately (on a "net" basis) satisfy capital and liquidity standards, it follows that overall capital requirements for the conglomerate will be significantly influenced by the type of products offered and the regulations applying to them.

4.8 NON-CORE INSTITUTIONS

In that context, it is worth turning to a brief discussion of some of the key points relating to the current (and, in the case of the Life Insurance Act, prospective) regulation governing capital/liquidity requirements for life insurance, superannuation funds, general insurance and investment advice (broking etc).

These issues are summarised in Appendix 2. Some of the key points, however, are:

I. current and proposed changes to the legislation for life insurance mean that regulation of this industry is already very much structured on a functional basis;

I. in particular, the level of the "resilience reserve" (aimed at ensuring the on-going ability of life and super funds to meet their requirements) is importantly determined by:
- product mix;
- asset mix and portfolio diversification;
- product terms (e.g.. surrender value basis);
- the level of the guarantees.

I. this means, together with the requirements for general insurance, that non-bank financial institutions (or, in the future, a "non-core" subsidiary of financial conglomerate) covering the full spectrum of non-bank products, can have a very different capital requirement, according to the spread of their offerings. Some indication of this diversity is shown in the followingtable which is based on work commissioned by the National for this Inquiry.

Table 4.5

Nature of Business	**Excess Reserves Likely for a Typical Fund: % of Liabilities**
Capital Guaranteed Business	10-15
Investment Linked Business	0.5-1
Whole of Life and Endowment Insurance	5-10
General Insurance	35 *

* For pure risk, a minimum solvency requirement was around 11.5 percent of liabilities, whereas the figure reported above equals the average of excess, liquidity of a sample of 23 general insurance companies.

I. The above figures imply that a life insurance firm operating with significant exposure to "capital guaranteed" and "pure risk" business could be required to hold around 8-10

percent in excess liquidity (or notional capital). Given the new life office standards, newer entrants (and especially funds managers) are likely to restrict their exposures to these higher "capital" required offerings and, on that basis, could be required to hold between 4-6 per cent in notional capital.

I. On the basis that 'functional' regulation is already effectively in place, the National does not see the need for more fundamental reform in this area. There would, however, be merit in:

- allowing the expense reserve and the new business capital reserves of life offices (essentially additional reserves to allow for costs of closing down and for expanding networks, respectively) to be held at the company level, rather than the proposed practice of placing them individually in each fund;

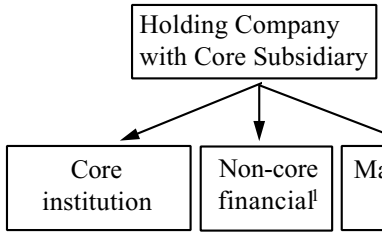
- removing the requirement to hold additional reserves if more than 25 percent of a fund is held with a subsidiary bank (or, in the future, a core institution). If maintained, this feature would act to significantly increase the cost of raising funds across the subsidiaries of a financial conglomerate. It also makes little practical sense, in that, it takes no notice of the "rating" of the bank involved (thus holding a larger proportion of the fund in a higher rated bank attaches a penalty, whereas diversifying to five or more lesser ranked banks does not). More to the point, such treatment is inconsistent with a more market based approach to financial regulation; and

- a key area of reform will be to implement a new disclosure and distribution regime to facilitate more informed choice. (These issues are addressed later in some detail in Chapter 7.)

Drawing the above together, and recognising that notional capital for non-core subsidiaries will vary according to the activities undertaken, it is possible to illustrate, by way of a simple worked example, the type of capital structure a holding company (including a core institution as a subsidiary) may face.[17]

[17]More detailed worked examples of methodology that provides for appropriate treatment of capital in conglomerates is set out in the "de Swann" report (obiter cite) pp. 100-114.

Table 4.6



Assets	40%	30%	30%	
Minimum Level of Capital/Excess Liabilities	8%	4%	1%	
				Total
	3.2	1.2	0.3	4.7%

(1) Life, Superannuation, General Insurance.

(2) General investment advice plus any trading activities not carried out in the "core" subsidiary.

In the above illustration, the minimum required capital requirements are 8 percent, 4 percent and 1 percent, respectively for the core, the non-core and market related activities. For the latter, it should be noted that we would envisage areas of trading, such as foreign exchange and OTC derivatives, to continue to be regulated on a purely functional form - and hence, it is open to the conglomerate to either do it in the core institution or to set up a separate "trading" entity. In the simple illustration above the minimum total capital required of the conglomerate would be 4.7 percent (net). Excess capital could be held in the holding company, or within the subsidiaries, according to wherever the holding company expects it to generate the best returns - and thereby contributing further to efficiency in the allocation of capital.

Although covered in Appendix 2, it is worth noting that there is some debate about whether such a holding company should be required to hold capital in excess of the "minimum sum required of the component subsidiary" (i.e. more than 4.7 percent above). That in large part relates to the perceived risk of "contagion" across subsidiaries.

Against that:

I. studies are increasingly (see especially Saunders and Walter (1994) and Benston (1994)) pointing to, if anything, a lowering of risks by combining banking and insurance. Rather, the largest element of risk appears to be associated with trading activity (which in Australia is already largely concentrated in banks); and

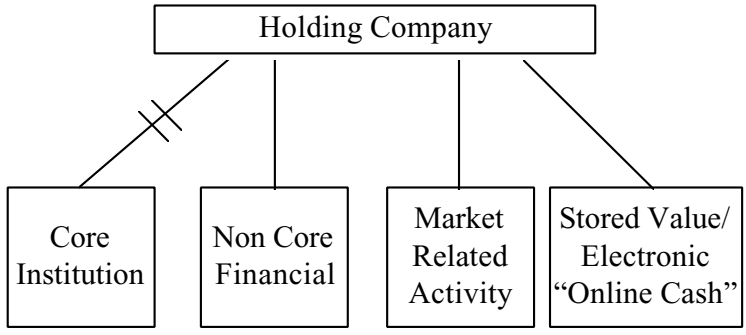
II. indeed, there is evidence of conglomerates encountering counter-cyclical revenue streams in their various banking, securities and insurance subsidiaries (see Watt, Richert and Mohanty 1993). Similar arguments were also made to the recent meeting of the International Monetary Committee in Sydney by the Chairman of the Executive Board of ING, Aad Jacobs and by the Managing Director of Barclays, Andrew Buxton.

On balance, the National is of the view that neither a capital premium nor discount should be applied to these financial conglomerates. What is obvious, however, is that while, on balance, there may be no overall increase in systemic risk from our holding company proposals, this will only hold if adequate risk management systems are set up within the conglomerate. Further, those internal risk monitoring systems will need to be more flexible and sophisticated than those required by stand-alone entities.

I. In these circumstances, the National advocates the introduction of a "trigger" mechanism - whereby it will be up to the conglomerates to convince the appropriate supervisor that internal risk management systems are in place. Such discussions should be "consultative" in nature and not "prescriptive".

Before leaving the issue of holding company structures, there are examples where some large offshore institutions would fail the diversity of ownership test (e.g.. GE Capital). While the above structure will not allow them to set-up subsidiaries that are core institutions, our schema would still allow significant participation in the financial system - including payments (provided the appropriate capital, and liquidity conditions are put in place) - as shown in table 4.7.

Table 4.7



The final issue to be addressed in this chapter relates to the treatment of mutuals. As noted previously, there appears to be quite mixed treatment of mutuals under the current system - both as regards access to the payments system and their ability to raise deposits without a prospectus (refer Table 4.3).

It should be noted that it is not easy to fit" mutuals" into a simple schema. In the past, mutuals have not been allowed to own banks, primarily due to the difficulties these legal structures entail in accessing capital in times of distress.

Although somewhat arbitrary, one possible way forward would be the following:

I. a mutual can compete in the payment system, provided it satisfies the rules for a financial corporation operating in the payment system (as set out above);

II. a mutual (domestic and foreign) can operate as a core institution, or as a holding company with a core subsidiary, provided it meets the rules for core institutions (including capital);

III. Where legal restrictions are such that access to"capital" is not available, the mutual would be required to operate as a non-core institution. In the special case of building societies and credit unions, they would continue to have the ability to raise deposits without a prospectus, provided their reserves are not lower than the equivalent capital standard of a core institution.