UNDERSTANDING PAWNBROKING

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1. Introduction:

Pawnbroking is a long standing form of credit and can be traced in the western world back to the later Middle Ages[1]. Although pawnbroking plays an important role in personal day-to-day finance for particular socio-economic groups, it is not well understood. Little research exists on the particular characteristics of pawnbroking credit, the pawnbrokers' place in a nation's credit system, or on their role in society.

Pawnbroking is currently under attention in social welfare circles in Australia for several reasons. One is the perception of a growth in gambling activity and the view that unsuccessful gamblers may turn to pawnbrokers as an immediate source of finance for continuation of their activities[2]. Another reason is the gradual dismantling of government social welfare safety net facilities which leave lower income groups more exposed to financial crisis and in need of pawnbrokers' services for short term finance. A third reason is the concern that increased competition and growth of user pays philosophy in financial markets is reducing the access of lower income groups to more "mainstream" credit sources.

Much of the social welfare oriented discussion of pawnbroking emphasises the potential imbalance in bargaining relationships between the borrower and lender in these circumstances and thus leads to an interpretation of pawnbroking as an exploitative activity, involving "usurious" interest rates. An alternative interpretation is that the services provided by pawnbrokers are of value to their customers, as indicated by the willingness of those customers to utilise pawnbrokers (often on a regular basis). Such customers may be in financial distress, but to blame pawnbrokers for extending needed credit on expensive terms when other financiers will not extend credit at all (ie on infinitely expensive terms) misses the point. To the extent that there is competition in the pawnbroking industry, exploitative behaviour can be expected to have adverse reputational effects and thus affect long run profit performance. The terms on which pawnbroking credit is extended may be high compared with other forms of financing, but may not necessarily be unwarranted given the nature of the transaction involved.

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[1] Caskey and Zigmund, 1990, p.8
[2] In Melbourne, for example, many observers have commented on the establishment of pawnbrokers near the temporary Casino.

It is thus important to separate out the issue of the underlying characteristics of pawnbroking credit, and the likely terms and conditions to be found in a competitive, informed, market, from the question of exploitative behaviour by individual operators in a less than perfect market. By doing so, appropriate regulatory policies can be identified.

The Victorian Government has recently passed significant changes to the legislation governing pawnbroking, to take effect from January 1998[3]. These changes involve the removal of interest rate ceilings, new (more liberal) registration (rather than licensing) provisions, introduction of requirements for display of standardised information on terms and conditions of credit, requirements for identification of customer identity (related to verifying ownership of goods pledged). Since these changes are both controversial and potentially significant in their effects on the industry, analysis of pawnbroking focusing on its risk-return characteristics, role in society and the financial sector, and costs and benefits to users, is particularly warranted, since there appears to be no research available which explicitly identifies or quantifies the risks of pawnbroking operations, or which examines the risk-return trade-off for the pawnbroker.

Much of the available information about pawnbroking is anecdotal. However, data obtained from a survey of Victorian pawnbrokers (more detail is contained in Bienkowski and Davis, 1997) will be referred to in the following sections which aim to identify, describe, and analyse, the characteristics of pawnbroking credit and the industry. Section 2 outlines the important characteristics of pawnbroking credit and this is followed in Section 3 by an analysis of the economic (and social) functions performed by pawnbroking. Section 4 examines the risks involved in pawnbroking credit (both from the perspective of the borrower and lender) and costs are analysed in Section 5. Together these sections provide the basis for understanding how the traditional pawnbroking contract described in Section 2 overcomes inherent market imperfections and how poorly designed regulation aimed at protecting consumers has led to financial innovation and practices which avoid the intended regulatory effects and have undesirable consequences. Section 6 then provides some conjectures on what value a competitive market interest rate for pawnbroking credit might take. Section 7 looks at the characteristics of the pawnbroking market, focusing upon the impact of trends in economic and financial conditions and legislation on the viability of pawnbroking. Section 8 provides some concluding comments.

2. Characteristics of Pawnbroking Credit

[3] Pawnbroking is regulated by State Governments. The new legislation in Victoria involved amendments to the Second Hand Dealers Act, and was passed in March 1997.

Pawnbroking involves the borrower "pledging" goods as security for a short term loan. The pawnbroker provides the individual with cash, in exchange for custody of specific goods, with redemption of the goods by the borrower possible at some future date(s) in exchange for payment of an agreed amount. Should the borrower not make repayment, the pawnbroker is entitled to sell the pledged goods to recover the amount owing. Historically these loans have involved low value transactions. A study of pawnbroking in the United States found that the average loan size was approximately $50, (Caskey and Zigmund, 1990) and the regulations governing pawnbroking in England at one time even went so far as to set the maximum principle loanable by a pawnbroker to £10[4]. Our survey data indicates that the average loan size in Victoria is just under $100.

Loans are not only for small sized amounts, but are characterised by being short-term, secured loans. Our survey data for Victoria indicates that the initial term is most commonly 1 month and sometimes up to 3 months. Caskey and Zigmund's data on US pawnbroking is consistent with this, with loans initially made for 1 or 2 months, and the typical pledge being redeemed within 2-3 months. There is generally an implicit agreement that the loan can be extended indefinitely beyond the initial term.

The main difference between a typical loan from a pawnbroker and one from a commercial financial institution (such as a bank) concerns the requirements for the provision of identification. In the case of a bank loan, rigorous identification checks are required to assess the credit risk of the borrower. Conversely, a pawnbroker only requires identification of the borrower so that the title of the goods pledged as security can be accepted and potential loss from retrieval of pledged goods by the rightful owner avoided. (Pawnbrokers regard this as possibly the most serious risk they face). Apart from this, identity of the borrower is irrelevant. Similarly, whereas formal legal contracts are required for bank borrowing, minimal legal documentation is involved in pawnbroking. The only documentation legally required to be produced by the pawnbroker, is that of a pledge ticket which consists of basic information about the borrower, the goods, the principal of the loan, the interest rate charged, and the amounts and dates when payments are to be made[5]. As a result of the minimal contractual and identification obligations, a loan may be completed in about ten minutes.

A typical transaction begins with the potential customer coming into a pawnshop with the item the individual wants to pledge. The pawnbroker and the borrower will then negotiate an amount of money to be lent against the item(s) pledged. Although the amount to be lent will be negotiated, the borrower is often in a poor bargaining situation. What generally occurs in arriving at an amount to be lent, is that the pawnbroker will prompt the borrower to proffer an amount they wish to borrow against the good to be pledged. If this amount is less than the

[4] Minkes (1953)

[5] In practice, interest rate ceilings in Victoria have meant that few pawnbrokers have operated as pawnbrokers *per se*, instead undertaking transactions in the form of *buy backs*, as discussed below.

maximum amount that the pawnbroker would lend against the item, the pawnbroker will agree. On the other hand, if the amount requested for loan is above this 'maximum', then the pawnbroker will negotiate down until the pawnbroker is willing to lend an agreed amount. Often this amount will be less than the amount desired by the borrower but the individual is commonly not in a powerful bargaining position because of the immediate need for funds. Nevertheless, anecdotal evidence from pawnbrokers suggests that only around 20% of enquiries eventuate into loans - although some part of the non completions arise from pawnbrokers' refusal to lend on goods perceived to be stolen.

When a loan amount is agreed upon, the borrower is required to produce one piece of photo identification, or two other accepted forms of identification. The pawnbroker is then required to maintain a record of all transactions in a book. This record book is to contain a description of the goods received, details of the borrower, amount pledged, the monthly and annual rates of interest, the amount and dates of payment, and the period of the loan. A pawnbroker must fix the period of the loan at the time that the goods are pledged. The pawnbroker must then issue the borrower with a pledge ticket, the details of which are governed by regulations 9(3) and 11.

If the period of the loan expires and is not extended, and the goods are not redeemed, the pawnbroker is able to offer the goods for sale as soon as practical and so as to receive the best price reasonably obtainable. If the principal lent is greater than $100, the pawnbroker must send notice to the borrower that the goods are being offered for sale after one month from the date of the notice. The person who pledged the goods is entitled to recover any difference between the sale price and the amount owing plus costs. The borrower has 12 months to reclaim this discrepancy, which is generally done through the courts. A person who has pledged goods may redeem the goods at any time before the pawnbroker sells or disposes of them.

The goods "pawned" or "pledged", ie. left as security for the loan, are heterogeneous, durable and portable goods. Pawnbrokers may accept anything, from bed linen, to electrical goods, jewellery or a tradesman's tools. As long as the pawned good can be stored by the pawnbroker (so that transportability is important), and is durable (ie. will hold its value) and marketable (so that it can be sold easily if needed), the good fulfils the basic requirements needed to act as security. One further characteristic preferred, but not essential, is that the size of the good be small to facilitate storage on the premises. In Victoria, the principal types of items pawned are jewellery, small appliances, musical instruments and sporting goods. The value pledged on a good, ie. the loan-to-collateral ratio, may depend on the item pledged, how well known the customer is to the pawnbroker, and to what extent the pawnbroker believes that the item will be redeemed.

In Victoria, pawnbrokers have made few loans in recent years under the standard pawnbroking format, preferring to rely instead on an informal "buy back" agreement. In this type of transaction, the pawnbroker purchases the goods from the customer and agrees verbally to allow the customer to buy the goods back at the specified date for a specified sum. Motivating this practice has been the desire (and need) to avoid the interest rate ceiling of 4% per month imposed on consumer loans under the *Consumer Credit Code Act (1984)*, which, if adhered to, prevents pawnbrokers charging an interest rate sufficient to compensate for costs and risks involved in this form of lending. "Buybacks", typically involving repurchase prices equivalent to an implicit interest rate of between 10-20% per month, have enabled the avoidance of this ceiling since the sale with option to repurchase has not been treated by the authorities as being a loan. Not only has this practice meant that the ceiling rate is ineffective, borrower protection has been reduced in two ways. First, borrowers must rely solely on the verbal assurance of the pawnbroker that they can redeem goods sold. Second, where borrowers do not redeem goods they have no claim upon the residual proceeds from sale by the pawnbroker, unlike the case (at least in principle) of a standard pawnbroking loan.

3. Functions and Interpretations of Pawnbroking

Pawnbrokers perform a variety of economic functions for a variety of customers. The most common interpretation of the pawnbrokers' role is that they provide short-term secured loans. Often these loans are necessary for emergency funds, providing access to food, rent, or even a tram fare. Pawnbrokers perform this function for all members of the community, however it is often pointed out that pawnbrokers cater for those consumers who are not able to utilise credit offered by mainstream financial institutions. Various reasons for this include: the need for immediate instantaneous credit; demand for low credit amounts; desire for anonymity; no prior banking facilities[6] (and therefore no credit history or rating); unsuitable credit security, perceived high risk of the individual due to low income. Because of these socio-economic characteristics of many pawnbroking customers, regulatory and social welfare groups often focus on the imbalance of economic power and knowledge in pawnbroking transactions and the potential for exploitative behaviour by pawnbrokers.

As well as provision of consumer credit, pawnbroking can be interpreted as being part of the second-hand dealers market. Pawnbrokers offer owners of goods a (not necessarily revenue effective) means of selling those goods (by pledging goods and not subsequently redeeming them). When pawnbrokers sell goods not redeemed they are offering consumers an alternative to purchasing new goods, and thereby enhancing the efficiency and liquidity of the second-hand goods market. Many pawnbrokers hold both a Pawnbrokers and a Second-hand Dealers license, while some second-hand dealers perform some pawnbroking functions, although not actually holding a pawnbrokers license, through *buy-back* transactions. Indeed, many pawnbrokers interpret their role more as a purchaser of second hand goods, offering customers the option of a repurchase, rather than as a provider of short term credit..

[6] For example, a Federal Reserve Survey showed that 12% of all families in the States did not have a banking account. Caskey and Zigmund (1990).

Another interpretation is that pawnbrokers provide access to cash as a media of exchange. Individuals may have an urgent need for cash to undertake certain cash based transactions, and be unable to obtain it in other ways due, for example, to inability to access bank accounts. With the gradual extension of banking hours, development of ATM/EFTPOS facilities for access to cash, and growth of facilities for non cash transactions (cheques, credit cards, EFTPOS), this role, even if once relevant, can be expected to have declined in importance in recent years.

Other features of the pawnbroker's function which have been suggested by some commentators relate to additional characteristics, relevant to a few customers, and not necessarily impacting on the efficiency of the credit market. It has, for example, been posited that some individuals pawn goods before going on holiday in order to protect those goods from robbery. It has also been suggested by some that a pawnbroker's shop provides a meeting place and social environment for those who may be unemployed or lonely. In this view the pawnbroker provides a social function to the community, rather than solely an economic function.

A final interpretation of the pawnbroking role, and that least complimentary to the pawnbroker, is that it may facilitate the disposal of stolen goods. Because of the minimal identification requirements, possessors of stolen goods can obtain cash for those goods by pledging them, but with no intention of redeeming. The extent to which pawnbroking facilitates the disposal of stolen goods depends upon the extent to which pawnbrokers insist on verifying title to goods offered, which in turn depends, *inter alia*, upon the probability and extent of loss if goods accepted are stolen and subsequently reclaimed by the rightful owners. Regulatory requirements and their enforcement are relevant here, as is the extent to which, for different types of goods, title can be readily established. For example, serial numbers on electronic equipment may enable police and rightful owners to identify such goods easily, whereas rightful ownership of common design jewellery is not so readily established.

4. Risks of Pawnbroking Credit

Both the pawnbroker and the customer are exposed to risks when conducting a transaction.

For the customer, the worst case scenario involves a loss equal to the value of the goods pawned less the amount advanced. Such risk arises from two sources. First, redemption of the goods may prove impossible due to default by the pawnbroker as might occur if the pawnbroker reneges on a buyback agreement or if the business is closed down. To the extent that customers take such risks into account, reputation for honesty and business strength is an important asset of a pawnbroker, and made more so under the buy back practice where the borrower's title to goods involved is less secure. Concern over reputation, to the extent that customer information networks exist, would encourage pawnbroker honesty, although transient customers dealing with newly established pawnbrokers with little reputational capital would be most at risk. Should a pawnbroker cease business prior to goods being redeemed, the customer would have the right to pursue compensation for the excess value of the goods involved through the courts, although this is a costly form of recourse given the typical amounts involved and of limited use where the pawnbroker has ceased business and not easily found. Moreover, in the case of buybacks, there would typically appear to be little hard evidence which a borrower could provide to back up such a claim.

A second source of redemption risk arises from fluctuations in the customer's economic situation. If redemption of goods is not feasible and thus does not occur as agreed, the goods may be offered for sale (after some minimum required period), or interest will continue to accrue until the amount owing will lead the pawnbroker to view redemption as unlikely and thus sell the goods. While legislation provides for the customer in a pawnbroking transaction to share in any surplus of sale proceeds over amount owing and other costs, this appears to be a rare event in practice, and such rights do not exist under the buyback practice.

The pawnbroker faces many risks. Some of these risks are inherent in the trade, while others may be self inflicted.

The most commonly occurring risk is that of default risk, or more simply, the non-redemption of pledged-items. Observations made in discussions with Victorian pawnbrokers, and survey data, suggest that non-redemption ranges from 10%-30%. Evidence in the United States seems to suggest that the number of non-redemptions ranges between 14%-22% (Caskey and Zigmund, 1990). This figure is somewhat inflated since it is the lower valued loans that have the highest default frequency. The dollar value of non-redeemed loans suggested by Caskey and Zigmund is in the range of 9%-19% of all loans. To the extent that customers may return long after the agreed redemption date wishing to then repurchase an item, and when finding it sold are classified as defaulting, the default rate will also depend on how long the pawnbroker holds a pledged good before it is offered for sale.

Paradoxically, customer default is probably to the short term advantage of the pawnbroker, since the net profit from resale of non redeemed goods is likely to exceed the profit from interest paid on redemption. In practice, the pawnbroking industry can be expected to implicitly factor in an expected probability of default in setting interest charges which mean that a desired return on business is made. Should average default experience exceed the expected rate, a larger proportion of goods will be sold than was expected, and pawnbroking profits be higher. Pawnbrokers, however, argue that their preference is for redemption since this increases the probability of repeat business from the same customers.

The risk of low resale value is another significant risk facing the pawnbroker. Resale risk is influenced by supply and demand factors in that particular goods market, general economic conditions, obsolescence, and the condition of the pledged good. The largest source of risk is likely to be the condition of some technical or complicated items (computers, electric guitars, video recorders/cameras) where it is more difficult to identify any major problems within the short time that a loan is transacted. This means that the pawnbroker faces a problem of adverse selection. Unless pawnbrokers have specific expert knowledge, they are subject to the risk of being a target for easy disposal of defective goods.

It is often thought that because of the nature of their business, pawnbrokers provide a conduit for trade in stolen property. While stolen goods may be offered as collateral, the pawnbroker faces the risk that, if the pledged item does not belong to the individual, a claim by the rightful owner will lead to return of the pledged good and loss of the loaned funds. Such a risk may be referred to as title risk, and is regarded by pawnbrokers as a major source of risk, particularly since goods may be pawned by family or friends of the rightful owner and criminal charges of theft never laid (impeding the (already low) ability of the pawnbroker to reclaim funds from the borrower). This risk is comparable to a financial institution's credit risk and, just as those institutions attempt to assess the credibility of the promise to repay, pawnbrokers will generally attempt to assess the credibility of the borrower's claim to title.

Apart from risks associated with individual transactions, pawnbrokers face typical business risks. The state of the economy is relevant, and it is often asserted that a pawnbroker's business increases during recessionary times. Whether pawnbrokers do better in bad times is, however, a matter for conjecture, since the rate of return on loans may also vary due to lower redemption rates accompanied by lower resale values.

Pawnbrokers also face liquidity risk and interest rate risk. Liquidity risk refers to the availability of cash on hand with which to fund loans. Decreased liquidity will arise from an increase in demand for loans, a decrease in redemption (ie an increase in defaults), or increased time required to sell unclaimed goods. Interest rate risk may result from an increase in market interest rates, because a pawnbroker's interest receipts are fixed when the loan is originated. However, given the short term of pledge contracts, and the fact that pawnbroker funding is predominantly own equity (rather than borrowed funds) the interest rate risk is minimal.

Pawnbrokers are also often perceived to be a target for theft - since the goods held are transportable and marketable. Being a target for crime presents a risk, not only to the profitability of the business, but also to the well-being of the pawnbroker. Furthermore, pawnbrokers may face difficulty insuring their premises for property damage or theft because of the larger risks associated.

As with any industry, a business faces economic risk if an increase in competition is possible. Such a risk is likely where there are low barriers to entry and pawnbroking is an industry where barriers to entry are low. Pawnshop start up costs and capital requirements are relatively low (loans outstanding for an average pawnbroker are in the order of $50,000), while entry into the industry is subject to minimal regulation.

5. Costs of Pawnbroking Credit

The most obvious cost involved in any type of loan, is that of the explicit (or implicit) interest rate charged by the lender. While in Victoria, the *Consumer Credit Code Act (1984)* has set the maximum allowable interest rate charged to any borrower at 48% per annum (ie. 4% per month) the actual implicit interest rate paid by individuals under the *buy back* arrangements used is typically in the range of 10%-20% per month.

Such figures, however, do not fully describe the expected cost of borrowing, since they ignore the cost to the borrower when default occurs. This cost depends upon the loan-to-collateral ratio (ie. the amount the individual receives in relation to the value of the item). It has been stated that this ratio commonly varies from 25%[7] to approximately 50% (Caskey, 1991), and in Victoria appears to be around 60% of the pawnbroker's estimated resale value. Whatever this ratio may be (which is also dependent on a fair assessment of the true (possibly unobservable) market value, and also often perceived differently in the biased judgement of the individual who ties sentimental value to the item), the individual is not in a powerful bargaining position such that an amount close to this true market value could be obtained. The individual may often be desperate for money while the pawnbroker faces resale risk, and such factors lead to the loan-to-collateral ratio being driven down.

The cost arising from default results in the actual cost to the individual of raising funds being much higher than the explicit interest rate being charged. For example, suppose goods worth $100 are pawned for a one month loan of $60 at an interest rate of 4% per month (ie an interest cost of $2.40). Suppose further that there is a 70% probability of the loan being redeemed. The expected cost to the individual is thus 0.3 x ($100-$60) + 0.7 x $2.40 = $12.40 + $1.68 = $14.08 which equates to an expected interest rate of 23.47% per month.

From the customer's perspective other costs which need to be considered include explicit fees and charges levied by the lender (which have not been permissible), together with time and expenses incurred in undertaking the transaction. Most of these latter costs are not directly measurable, but include inconvenience costs, transportation costs, and psychological costs. Inconvenience costs are the result of not having the use of the goods for consumption or, as in the case where a labourer pawns tools, income producing activities. Transportation costs are mentioned frequently in the discussion of pawnbroking. This point relates more to earlier times

[7] The minimum stated by a consumer group in a submission to a review of the Second-hand Dealers and Pawnbrokers Act (1989).

when most people had very limited access to transport (public or private). Even today however, the cost of a train ticket ($2.20 for a basic adult ticket) to obtain a small loan, say a $20 loan for one month, will increase the effective interest rate from 4% to 15% per month. This is almost a 300% increase and results in an annual interest rate of 180%. For this reason, transportation costs affect the geographical distribution of pawnbrokers leading to a concentration in heavily populated, lower socio-economic, areas. Psychological factors may also be relevant for those who are forced to utilise this form of credit through inability to access alternative sources of funds. The cost is presumably higher for first time borrowers, but depends on how the individual is affected (decreased motivation, self-esteem etc.) by the transaction.

It is also interesting to note that individuals are often unaware of the explicit interest rate. This may reflect the fact that in the circumstances faced by the borrower, rational economic calculation of the costs is impossible or unnecessary (the transaction is not of a marginal nature), or due to the fact that under the *buy-back* system, the good is repurchased at maturity, for an amount which assumes an implicit interest rate rather than an explicit interest rate.

From the perspective of the pawnbroker, earnings (either in the form of interest or sale proceeds) must be sufficient to cover operating costs and provide an adequate return on funds employed in the business for the risk involved.

The largest cost in running a pawnbroking business is that of fixed operating costs. These include fixed costs such as rent or purchase of the business premise, installation of security, rates, wages, and license fees. Of these items, license fees impose a minimal cost to the pawnbroker; $100 for a license application, and $50 for renewal. Security costs can be quite expensive, especially where insurance is not possible, and may include installation of safes, an alarm system, a deposit-security box at a bank, thief-proof caging around the counter, and even an alarm link up with a security-service provider. Wages and cost of business premises are particularly large costs, and dwarf interest foregone on funds tied up in the business for the average pawnbroker. (An average pawnbroker might have $50,000 of loans outstanding implying an interest foregone, at say 20% p.a., of $10,000 p.a., compared to an opportunity cost of his/her labor of, say, $50,000 p.a. and rental of premises of, say, $10,000 p.a..)

The most significant cost saving to the pawnbroker in comparison to a mainstream financial institution is that of information and documentation/processing costs. A pawnbroker faces relatively little of the information costs confronting a mainstream institution which primarily consist of accumulating credit rating information. The most significant information costs a pawnbroker faces is that of collecting and assessing information about the true market value of items which might be pawned, and in judging whether a potential borrower has valid title to goods offered.

6. A "Fair" Interest Rate for Pawnbroking Credit

If pawnbrokers are to operate without being subject to an interest rate ceiling, what interest rate might the borrower expect to be charged? Several approaches to estimating a market determined rate can be used, although all must take into account two important facts. First, all operating costs of the pawnbroker need to be covered by loan proceeds and thus reflected in the interest rate charged. Second, loan proceeds take the form of either interest received (when the loan is repaid) or proceeds of sale of pledged goods (in the case of default).

These facts make direct comparison of pawnbroking interest rates with other consumer credit interest rates impossible. Operating expenses are high relative to loan size, and non redemption rates are relatively high.

An alternative approach might be to recognise that a pawnbroking loan can be interpreted as equivalent to the customer selling the goods and simultaneously purchasing a call option giving the right to redeem the goods at the agreed buyback price. However, the significance of physical operating costs in undertaking the transaction, the absence of a liquid market in which to undertake hedging transactions in the underlying asset, and the possibility of non exercise by the option holder due to income constraints means that option pricing theory cannot be realistically applied.

The most promising approach is a "cost plus" method, based on estimating the costs for an "average" pawnbroker. For such a hypothetical individual, an average loan book would have around $50,000 of loans outstanding, with an average size of $100 and maturity at inception of one month[8]. Assume that a proportion p of loans are redeemed at maturity at an interest rate of r% per month, and that the remainder are not redeemed and the goods sold immediately at market value. Assume further that the ratio of market value of goods to loans is L (ie the loan/valuation ratio is $1/L$), that the opportunity cost of funds employed is r_o % per month, and that fixed costs (labor costs, rental of premises etc.) are $K per month.

In a competitive market, profit for such an average pawnbroker should be zero - provided that the assumed opportunity cost of funds allows appropriately for risk and that labor costs allow for a market related return on the proprietor's time and effort. The expression for profits can be written as:

Profit = interest income + resale profit - cost of funds - fixed costs

[8] Our survey data suggests that the average pawnbroker makes 15 loans per day for an average value of slightly less that $100 and initial maturity of one month.

$$= 50{,}000 \times p \times r \quad + 50{,}000 \times (1-p) \times (L-1) \qquad - 50{,}000 \times r_o \quad - K$$

Setting Profit to zero and solving for r gives

$$r = K/(50{,}000p) + r_o/p - (1-p)(L-1)/p$$

Table 1 provides estimates of the monthly interest rate which yields zero excess profit for various parameter values. The first set of estimates assume fixed costs (rental, wages, own labor costs etc.) are \$8,000 per month, and that an appropriate risk adjusted cost of funds is 3% per month (36% p.a.). For a market value /loan ratio of 1.5 (ie loans made at 2/3 of the market value of goods pledged) and 80% of loans being redeemed, the competitive interest rate charged is 11.25% per month. Noticeably, as the proportion of redemptions declines, the zero profit interest rate declines reflecting, under the assumptions made here, the greater profitability of resale. For a lower assumed cost of funds (2% p.m.) and fixed costs (\$6,000) in the second set of estimates, the zero profit interest rate is correspondingly lower.

Table 1

K = 8,000	r_o = 3%		
		p	
L	0.6	0.7	0.8
1.2	18.33%	18.57%	18.75%
1.5	-1.67%	5.71%	11.25%
2	-35.00%	-15.71%	-1.25%

K =6,000	r_o = 2%		
		p	
L	0.6	0.7	0.8
1.2	10.00%	11.43%	12.50%
1.5	-10.00%	-1.43%	5.00%
2	-43.33%	-22.86%	-7.50%

The sensitivity of zero profit interest rates to changes in assumed parameter values is apparent in Table 1. For market value/loan ratios ranging from 1.2-1.5 and repayment probabilities between 0.7 and 0.8, (both of which are realistic ranges) the zero profit interest rate ranges between -1.43% and 18.75% per month. However, since fixed costs of \$8,000 per month are not unreasonable, and a risk adjusted interest rate of 3% per month (reflecting compensation for possible insolvency and other non-diversifiable risks) may not be out of the question, it is clear that double digit per month interest rates may be consistent with a competitive market for this type of credit.

The preceding calculations examine the average loan for the average customer and ignore the fact that many users of pawnbroking credit are not able to search easily for the best rate. Many are desperate for immediate cash and therefore are constrained to whatever rate the pawnbroker wishes to charge. While this suggests that exploitation of some customers by some pawnbrokers is possible it does not justify a case for regulation which takes the form of a ceiling interest rate on all loans which prevents pawnbrokers achieving normal profits.

Beyond the expected costs of a loan, the borrower will also be interested in the relationship between the loan size and the security offered for collateral, ie the loan-to-collateral ratio. Goods which are of small size, low volatility of demand and which have an established secondary market; constitute good security. Good examples are gold or jewellery, and when pawnbrokers are asked to estimate their loan-to-collateral ratio, they often provide their estimates for the case of gold. Being relatively low risk and with a market value which is easy to calculate, this loan-to-collateral ratio appears to set the maximum one can expect to obtain.

7. Economic Trends, Regulation and Pawnbroking

Pawnbroking, like any other industry is affected by economic trends. While demand for pawnbroking credit may wax and wane with economic conditions, longer run influences are particularly relevant for assessing the industry's future viability.

An important consideration is the availability of short-term, low-value credit facilities from other sources. General use of credit cards and shopping cards (eg. Myer card) has increased markedly in recent decades and these provide a ready and cost-effective substitute for low value personal credit facilities. While this can be expected to reduce the need for pawnbroking services, this effect is confined to those whose credit standing enables them to achieve card ownership. To the extent that certain socio-economic groups are excluded from access to such credit facilities, the composition of pawnbroker customers may be increasingly made up of such groups.

Credit cards, along with the use of debit cards, have increased out-of-hours access to cash. The wide spread distribution of these facilities is evidenced where EFTPOS or ATM labels are displayed. The impact of these developments is also to reduce the demand for pawnbroking services.

Since pawnbroking credit is often an emergency form of obtaining funds for necessary expenses (food, rental, drugs) an important longer term determinant of industry growth is the extent to which social changes lead to individuals being in this predicament and with no alternative sources of finance. On this score, casual empiricism suggests significant future growth for pawnbroking. First, there would appear to be a widening gap between rich and longer term poor, exemplified in the persistence of high long term unemployment and social welfare dependence in certain socio economic groups. Second, social problems such as drug dependency and gambling addiction, which can create circumstances of repetitive emergency needs for cash, appear to be on the increase, and thus conducive to growth in pawnbroking services. Finally, there appears to be a decline occurring in government provided social welfare safety net facilities which would otherwise partially obviate the need for use of pawnbroking services.

In such circumstances, appropriate regulatory design to facilitate use of pawnbroking services while preventing exploitative practices is increasingly important. As discussed, the Second-hand Dealers and Pawnbrokers Act (1989) has recently been amended to remove the interest rate ceiling, increase information provision to customers, and make entry easier into pawnbroking. It remains to be seen whether the proposed changes lead to the demise of the buyback system, with its inherent risks for customers, and a return to "pledge based" lending.

8. Conclusion:

The typical pawnbroking loan is structured to enable the short-term procurement of a small volume of funds in an environment characterised by significant information deficiencies. The requirement to provide physical marketable collateral with value well in excess of the repayment obligation removes credit risk faced by the lender (but replaces it with title risk) and provides incentives for the borrower to repay the loan by, in effect, transferring the consequences of credit risk back to the individual. By increasing the probability of redemption the pawnbroker also reduces the extent of resale risk, although the problem of adverse selection through individuals pawning and not redeeming defective goods remains an important risk to be managed.

An important feature of pawnbroking is that costs incurred in the process of providing loan facilities are significant relative to the size and term of loans involved. To cover such costs, the interest rate charged on loans must (unless explicit fees are levied) be relatively high, and the interest rates observed in the market of between 10% and 20% per month are not obviously incompatible with competitively determined rates.

The current situation in Victoria is that most, if not all pawnbrokers are operating under a *buy-back system*, rather than as traditional pawnbrokers. This has had two main effects. The first is that the regulation imposing a maximum interest rate is thought to have been circumvented, and if not, the law has ignored this breach of regulation. The second effect has been to increase the risk to which customers are exposed, in the form of absence of a contract providing clear entitlement to redeem goods. Financial innovation has not only enabled good intentioned but poorly designed regulation to be avoided, but has most likely worsened the situation of those whom that regulation was designed to serve. Changes to the legislation in 1997 which remove the interest rate ceiling provide scope for the industry to adopt more efficient contractual arrangements, but it remains to be seen whether they and market forces provide adequate safeguards to prevent exploitative behaviour.

REFERENCES

Bienkowski Nick and Kevin Davis (1997) "The Pawnbroking Industry: Evidence from Victoria" *mimeo, Department of Accounting and Finance, The University of Melbourne*.

Caskey John P (1991) "Pawnbroking in America: The Economics of a Forgotten Credit Market" *Journal of Money, Credit, and Banking*, 23, 1, February, 85-99

Caskey John P and Brian J Zikmund "Pawnshops: The Consumer's Lender of Last Resort" *Federal Reserve Bank of Kansas City Economic Review*, March / April 1990, 5-18

Hudson Kenneth (1982) *Pawnbroking: An Aspect of British Social History*, The Bodley Head, London

Minkes A L (1953) "The Decline of Pawnbroking" *Economica* February, 10-23.

Tebbett Melanie *Making Ends Meet: Pawnbroking and Working-Class Credit*, Leicester University Press, New York, 1983