

A STUDY OF AGREEMENTS FOR SALE AS A SOURCE
OF RESIDENTIAL FINANCE

by

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ABSTRACT

The basic purpose of this paper was to gain a better understanding of agreements for sale as a source of residential finance. This meant discovering what terms were being charged and why purchasers of houses used agreements as a source of finance versus mortgages. To this end, three hypotheses were derived in order to arrive at these answers.

The first problem was to discover the relationship that existed between the state of the economy and the usage of agreements for sale as a source of residential finance. In addition, the influence on the terms charged was measured. The second area of investigation was to discover the effect of a house buyer's socio-economic status on the probability that he would have to use an agreement for sale. The basic question concerned whether a person with a low socio-economic status would be more likely to use an agreement. The terms charged were similarly analyzed. The third and final problem compared the terms on agreements and on mortgages. Was there greater variation in the terms amongst agreements than mortgages? If there were any variation, could this be due to differences in the quality of the borrower's financial collateral?

To answer the first problem, data was collected for the year 1970 and 1971 on agreements for sale because these two years coincide with a recessionary and expansionary economic period, respectively. For the second problem, data was collected on mortgages for the year 1971. Purchasers under agreements for sale and mortgages were then all assigned a socio-economic status. Thereupon, the analysis was undertaken on the basis of the data collected. For the third hypothesis, the collected data for 1971 on agreements for sale and on mortgages was

statistically compared. In addition, regression equations were derived between certain variables to arrive at relationships between terms.

In concluding, it was found, that in a recessionary state in the economy, agreements for sale were in greater prevalence than in an expansionary state. The terms charged at such a time were much harsher than in a time of economic expansion. Purchasers with low socio-economic status tended to use agreements for sale more often than did buyers with a high index. In general, it was found that agreements for sale tended to have less harsh terms than did mortgages.

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CHAPTER I - INTRODUCTION

The underlying purpose of this study is to increase the basic stock of knowledge available on the topic of financing single-family detached housing. It focuses on agreements for sale as an alternative source of funds to finance the purchase of residential properties. In short, this paper investigates the extent to which agreements for sale are used as a source of credit in purchasing a home.

Although an intensive analysis of agreements for sale will be presented in the next chapter, to clear up any possible misunderstandings, a brief definition is given here. Basically, an agreement for sale occurs when the vendor in a real estate transaction finances the sale. Generally, the vendor accepts a down-payment initially and the right to receive a series of periodic payments covering interest and principal amortization for the purchaser.

This study has a two-fold function. It is descriptive - the extent to which agreements for sale are used and the terms negotiated will be delineated. It is also analytical - the significance of the relative magnitude of the terms and other variables will be derived. The basic approach is a comparative one, that is, the results for the agreements for sale (agreements) will be compared to those computed for the mortgages sampled.

The hypotheses that are investigated relate basically to two questions. First, one concerns the conditions under which agreements are used to finance a real estate transaction. Secondly, what differences exist for the terms charged between agreements and mortgages under different circumstances.

The first factor to be analyzed which might affect the usage of agreements will be the general economic conditions of the community. In other words, does the economic level of a community, province, or country, affect the relative use of agreements as a source of residential finance vis a vis mortgages. For example, if money is tight (Interest rates are high, consumer spending and capital investment is low, and taxes are high), are house purchasers more likely to resort to agreements for sale to finance the transaction?

The second factor relates to the socio-economic status of the purchaser. The basic question is to what extent will the socio-economic status of the borrower determine the likelihood of using an agreement as a source of credit to buy the house? For instance, is a person with a low socio-economic status more likely to use an agreement than a person with a high status? In theory, this socio-economic index measures such aspects as one's job, personal income and wealth, education, place of residence, interest, etc. But, as will be described later, the one utilized in this study includes only personal income levels.

The third and final hypothesis is designed in order to understand how agreements for sale and mortgages differ in their respective terms. Are there financial advantages to one source of funds or the other which would affect the borrower (purchaser or mortgager)? In other words, are the terms harsher for mortgages, especially with respect to the interest rate charged, the periodic payment required, and the down-payment needed? The severity of the terms charged will determine which residential purchasers can obtain mortgage financing and which ones have to look elsewhere for credit or forego the purchase.

HYPOTHESES IN SUMMARY ARE:

1. That during a period of economic recession, agreements for sale are more prevalent than during a period of expansion in the economy.
2. That a person with a low socio-economic index is more likely to finance his residential purchase with an agreement, than is a person with a medium or a high socio-economic index and that the low index purchaser is likely to obtain more favourable terms with an agreement than with a mortgage.
3. That the terms of Agreements for sale show a greater variation than those on mortgages, and that the variation is a direct reflection of quality differences with respect to the borrower and his financial collateral.

IMPORTANCE

Traditionally, food, clothing, and a roof over one's head have been the basic essentials of life on our earth. The affluence of the western world has allowed people to have better quality essentials and more of them. The provision (quality and quantity) of these necessities involves social and political considerations. This means that biases and inequalities in our present system of allocating these essentials have ramifications throughout our society from a personal view-point as well as from a social, political, and economic perspective. Therefore, understanding the nature of these inequalities and why they exist, should provide a means for alleviating them.

Many statements are made about how homes are financed and why; some of which seem intuitively correct especially when they are asserted by those actively engaged in the residential market. This research project will try to provide a better understanding of these questions as they apply to agreements for sale relative to mortgages. In addition, it will endeavour to prove whether or not some of these statements are true.

On the whole, this paper will try to provide a better understanding of the financial aspects of the residential market, in particular that of Vancouver, British Columbia.

ORGANIZATION OF THE THESIS

Chapter Two subjectively deals with agreements for sale and mortgages in the context of their usage and their respective legal problems. These are compared practically from an economic perspective and legally from a common law point of view. In addition, this chapter discusses why these two methods of residential finance are used and what circumstances determine which one is to be used. Chapter Three discusses what data was collected, how it was sampled and which computations were undertaken on the data. Chapter Four analyses the effect of the economic conditions of a community on the usage and terms charged for agreements. Chapter Five discusses the importance of the socio-economic status of the borrower in determining which source of finance can be used and what the terms of the contract will be. Chapter Six compares agreements and mortgages as to their respective terms. Finally, Chapter Seven summarizes the results of the three preceding chapters and describes their implications for a potential residential purchaser.

CHAPTER II - ECONOMIC & LEGAL PERSPECTIVES

Before proceeding with the definition of an agreement for sale, it should be noted that there are many synonyms having the same meaning in law and in business as the phrase Agreement for Sale. The following list of phrases is synonyms for the term Agreement for Sale - rights to purchase, land or property contracts, and land or property sale contracts.

The legal and business implications of agreements and mortgages must be understood to comprehend the quantitative analyses in the following chapters.

Both the agreements and the mortgages are used principally as a means of financing real estate transactions by securing the loan with real property. The debtor contracts to re-pay the principal borrowed and also pledges real estate as security for the re-payment to the creditor. In an agreement, the vendor of a particular property accepts payment of the purchase price in periodic instalments (usually on a monthly basis) after an initial down-payment is made. A purchase-money mortgage also involves these circumstances - the purchaser who is the mortgagor makes periodic payments to the vendor (mortgagee). In most cases, the purchaser has also made an initial down-payment to the vendor. (N.B., As noted in the introductory chapter, purchase-money mortgages are not included in this study). An agreement and a purchase-money mortgage both involve only two participants - the purchaser and the vendor. However, the kind of mortgage studied in this paper has three participants in the sale and financing transaction. There is the purchaser (mortgagor), the vendor, and a separate mortgagee. The mortgagee in this case is usually a life

insurance company, a bank, a credit union, or a real estate company. The purchaser finances the sale by mortgaging the property to any one of these institutions. He makes a lump-sum payment to the vendor for his property, part of this sum is borrowed from the mortgagee and part is his own equity. He also contract to make periodic instalment payments to the mortgagee. The important point to note is that under an agreement for sale, the vendor participates in the financing arrangements and therefore, bears some risk. The vendor bears very little risk if the sale is financed with a mortgage because, once he receives the purchase money and the transaction is registered, he is out of the picture completely under normal circumstances. The mortgagee bears the risk.

Under both these financial arrangements, the purchaser is not usually indebted for the entire purchase price. He contributes part of his own equity capital to finance the transaction. In addition, the periodic instalment payments cover the cost of interest and principal amortization. The vast majority of arms length financial arrangements involve interest payments.

Under British Columbia's Land Registry Act¹ (R.S.B.C. 1969), title rests with the vendor under an agreement for sale and with the mortgagor under a mortgage. These instruments are secured by registering them as charges against the title. A charge under this act "means any estate less than the fee-simple, and shall include any equitable interest in land, and any encumbrance upon land,..."² The definition of an encumbrance includes "any Crown debt, judgement, mortgage lein or other claim to or upon land created, effected, or given for any purpose whatever, whether by the act of the parties or

by or in pursuance of any Statute or law, and whether voluntary or involuntary."³ Therefore, both agreements for sale and mortgages are included within this definition of an encumbrance.

Fortunately, the Land Registry Act has greatly simplified the procedures involved in transferring real property. Under common law, property transactions involving instruments of finance tend to be quite complicated. In practice, the Land Registry Act applies; however, when points of law are in question, common law applies.

The case of North Vancouver v. Carlisle⁴ specifically entertained this problem of common law superceding the statute. The presiding judge stated, "In my opinion the law remains as it was, unaffected by our L.R.A., 1921, Ch.26, that by mortgage the legal title passes to the mortgagee subject to an equity of redemption in the mortgage."⁵

Under an agreement, the vendor holds the legal title of the property until the last instalment has been paid by the vendee. "What remains to the vendor after making an agreement of lands was held not to be an estate or interest but a right to money for the payment of which he has a lein upon the land and as security for which he holds the legal estate."⁶ In law, the vendor is a trustee of the purchaser. However, upon completion of the terms of the sale contract, he must convey to the purchaser the title to the property in question. Basically the purchaser has an equitable interest in the land. He retains this equity interest till the terms of the agreement are completed, at which time he receives the fee simple interest of the property.

When a mortgage is used to finance a real estate transaction, the vendor is removed from the picture as soon as the conveyance is

completed and the purchase price has been paid. At the time of sale, the vendor conveys his fee simple interest to the purchaser in return for the purchase monies. Thereupon (actually the following is pre-arranged before the vendor conveys his title), the purchaser, to finance the transaction, gives a mortgage to the mortgagee as security for the borrowed funds. During this time when the property is mortgaged, the mortgagor has an equity of redemption which is "the right of a mortgagor to redeem the mortgaged property (title) upon payment of all that is due by way of capital and interest."⁷ The mortgagee, on the other hand, holds the title to the property in question until all payments are completed.

In both a sale and a mortgage transaction and in an agreement for sale transaction, actual possession of the property is transferred only from the vendor to purchaser. However, legal title changes hands many more times. In the situation of a sale and mortgage, the title to the property is conveyed from the vendor to the purchaser as part of the sale and is then transferred to the mortgagee as security for the mortgage. Eventually under the provisions of the mortgagor's equity of redemption, the purchaser re-gains title when he has fulfilled all the mortgage commitments. On the other hand, in an agreement, title is transferred from the vendor to the purchaser only when the terms of the agreement are completed.

From the point of view of the creditor in both these forms of real estate finance, what legal security does he have in case of default by the debtor? A mortgagee's possible remedies are to sue on the mortgagor's personal covenant to obtain the balance still owing or to foreclose the mortgage which has the effect of terminating

the mortgagor's equity of redemption. Generally defaults are remedied by foreclosure because the debt outstanding in most cases is too large to expect that the mortgagor could afford to pay it off in one lump sum. Legally, a purchaser, after he has defaulted under the provisions of an agreement, is sued for specific performance of the contract or the contract is rescinded by the vendor. The most likely reason for defaulting is a failure to make the instalment payments, so that, the only feasible remedy is rescission. Rescission in these circumstances implies that the agreement for sale is nullified and the fee simple interest in the property is returned to the vendor. It should be noted, however, that in British Columbia foreclosure of an agreement is recognised.⁸

Upon foreclosure or rescission, the period of redemption has been one of the main differences between a mortgage and an agreement. Under common law, the courts have traditionally permitted a six-month period of redemption to the mortgagor. However, for an agreement for sale the courts in the past permitted only a three-month period to the purchaser. Recently this has been altered so that there is no hard and fast rule as to the length of the redemption period. Rather, it now depends on how secure the vendor is financially, so that the outstanding debt can be paid.⁹

WHY ARE AGREEMENTS FOR SALE USED?

In the majority of residential sales transactions, the purchase is financed by obtaining a mortgage from a life insurance company, a credit union, a bank, or any number of other financial institutions. However, many individuals, who are desirous of purchasing a house, cannot obtain institutional mortgage financing. These people, therefore,

resort to an agreement for sale. The following paragraphs attempt to describe and analyze why agreements for sale are used as a source of financing.

A person decides to sell his home usually for some significant reason. It may be because he is being transferred to another position in a different town, his wife is expecting a child, his family desires a house that provides more amenities, or his children have grown up and moved away. There are two variables that affect the vendor's position vis a vis the use of an agreement for sale to finance the purchase of his house. These are eagerness to sell and personal financial circumstances. The vendor's eagerness to sell is usually measured in terms of time. In other words, he has to start work in another city within one month or schools may be starting in two months time or the baby is expected in six weeks. Such a time constraint affects the urgency that he feels to sell. The more eager he is to sell, the less bargaining power he has in obtaining a reasonable market price. Conversely, when he has more time to sell his house, he can likely bargain for a sale price that seems reasonable to him.

This also applies to agreements for sale - if the vendor urgently has to sell, then he is more likely to accept the use of an agreement to finance the purchase. His financial circumstances at present, and the financial arrangements in the vendor's new accommodation also affect his decision to accept an agreement. First, if he has large savings accumulated and a secure regular income, he is more likely to accept an agreement because he can obtain reasonable mortgage financing for the purchase of his new house. However, if he does not have a large lump-sum saved, then he probably does not have enough money to pay the down-

payment for his desired new home. Under these circumstances, he likely wants to completely cash out his equity investment in his present home. The most significant point to note is that the sum of the vendor's present savings and income combined with the down-payment and installments from the purchaser completely pay for the accommodation that the vendor desires. If they do not amount to enough to finance his new place of residence, then an agreement will not be acceptable to him. There are many different kinds of accommodations that he may be seeking - rental apartment, an equivalently priced home, or a more expensively priced home. An agreement is more easily accepted if the vendor is moving into rental accommodation which requires no initial lump-sum payment but only regular monthly rental payments. If the vendor is planning on moving into a more expensive home, then a lump-sum cash payment from the purchaser is the most desirous to meet the higher down-payment and periodic payments.

In many circumstances, the vendor has very little choice - he has to accept an agreement to finance the sale. Often, these circumstances are not under the control of the vendor. If the quality of the house involved is noticeably poor, especially in relation to the surrounding neighbourhood, or if the neighbourhood has some stigma attached to it, such as a high crime rate or a socially low class area, then potential buyers will not regard the house as a particularly good purchase. Two problems are likely to result: the vendor in order to sell his home, will accept an agreement with very liberal terms to entice a buyer or, secondly, only those buyers with marginal financial collateral will be interested in buying. In the latter case the buyer will have great difficulty in obtaining a mortgage, so that an agreement will be the only possible means of financing the sale. A very similar situation arises

when the economy is in a recession because the number of potential buyers is reduced drastically. This forces the vendor to attract buyers with liberally termed agreements.

As already briefly described in the previous paragraph, a potential purchaser with only marginal financial collateral is often forced to use an agreement to finance the transaction. Financial collateral includes many different but interrelated aspects. The buyer's job, his credit rating, and his past experience form part of it. If his job seems insecure or he has frequently changed jobs or he has a low credit rating, the institutions are less likely to consider him a good risk for a mortgage. If he is having marital or other personal problems which these institutions may be aware of, then they may consider him too risky to be given a mortgage. The two most important financial factors that are heavily weighed by these institutions in deciding whether to give a purchaser a mortgage are his regular personal income and his accumulated down-payment. If the annual amortization payments on the mortgage plus property taxes are greater than 25% of the purchaser's annual income and if his down-payment is less than 25% of the purchase price, then these institutions will not give him a conventional mortgage. With NHA insured mortgages the two ratios become, respectively 27% and 95% up to a sales price of \$25,000. Even given these relaxed terms many buyers cannot obtain mortgage financing and are, therefore, forced to use an agreement to finance the home purchase.

In addition agreements are used when the sales transaction is a non-arms length one. In this situation the sale is usually between friends or relations. Because there is a trusting relationship between the two parties involved in the transaction, this means of financing the sale can be the most compatible to both the vendor and the purchaser.

There is very little chance of complications such as default or legal problems.

One of the advantages of an agreement that is often cited is the fact that it seems to be easy and very cheap to set up. In a book on real estate finance, it was stated, "In his eagerness to economize the vendee may consider the services of an attorney to represent his interests an unnecessary cost."¹⁰ It seems that in many cases, the real estate salesman transacting the sale takes care of all formalities - business and legal. The terms superficially seem to be very simple and merely state the sales price, the down-payment, the monthly payment, and the interest rate. Unfortunately, because of this, the wording of the contract is misconstrued, on occasion, or important clauses involving acceleration or pre-payment are omitted completely. These ambiguities and omissions likely prejudice unfairly the interests of both parties to the contract. When considered rationally, as much consideration (time and expense) should be involved in settling an agreement contract as is required for a mortgage.

Although the previous discussion has centered on the factors that might lead one party to a sale transaction to use an agreement to finance it, in most situations, it is not so one sided. In other words, there are usually factors affecting both vendor and the purchaser, that force them to use an agreement to finance the transaction. These factors can be any one of the ones previously discussed in this section - from personal income to the state of the economy.

FOOTNOTES - CHAPTER II

1. Land Registry Act, R.S.B.C. 1969, Ch. 208. Consolidation.
2. IBID. p. 2215
3. LOC. CIT.
4. North Vancouver v. Carlisle (1922) 70 DLR 527.
5. LOC. CIT.
6. Auld, F.C. The Canadian Abridgement, Burroughs & Co., Toronto, 1943. p. 654.
7. Cheshire, G.C. The Modern Law of Real Property. Butterworths. London, 1962, p. 68.
8. Singer v. Garrett (1929) Two Western Weekly Reports. 201 (B.C.) p. 201.
9. LOC. CIT.
10. Hoagland and Stone. Real Estate Finance. R.W. Irwin, Inc. 1969.. Fourth Edition, Illinois, p. 137..

CHAPTER III - RESEARCH PROCEDURES

Data was collected from the Teela Market Surveys,¹ only for the Cities of Vancouver and North Vancouver, and the District Municipalities of North Vancouver and West Vancouver. Teela in 1970 published 24 books and in 1971, 27 books. Each book, comprising two sections, covers a two week period of the year. The first section lists all the property transactions registered in that two week period and the second lists all the mortgages registered. Agreements for sale, because they are part of the sale transaction, are included where applicable in the information provided for each property transaction.

Information was gathered for agreements and mortgages for the year 1971 to undertake the comparison between these two means of residential finance. It was also amassed to discover the effect of socio-economic index on the usage and terms of agreements with respect to mortgages. In addition, data on agreements was collected for 1970 so that cyclical economic changes could be related to the usage and terms of agreements.

The 1970 data for agreements was amassed on the basis of a fifty percent random sample of the total population. The 1971 information was gathered on the basis of a one-third random sample. A smaller random sample was used in 1971 because the results for 1970 indicated that a one-third sample in 1971 would be statistically valid. In 1970, data for 552 agreements was collected while in 1971 information for 313 agreements was gathered.

The mortgage sample was designed merely to be an indication of conventional institutional mortgage lending, so that comparisons could be drawn with agreements. Initially, all the mortgages that were registered in 1971 and were also published in Teela were collected and prepared for computer analysis. A distribution of mortgages issued per individual

company was derived on the basis in which every firm issuing fewer than 30 mortgages in 1971 was removed from the potential sample.

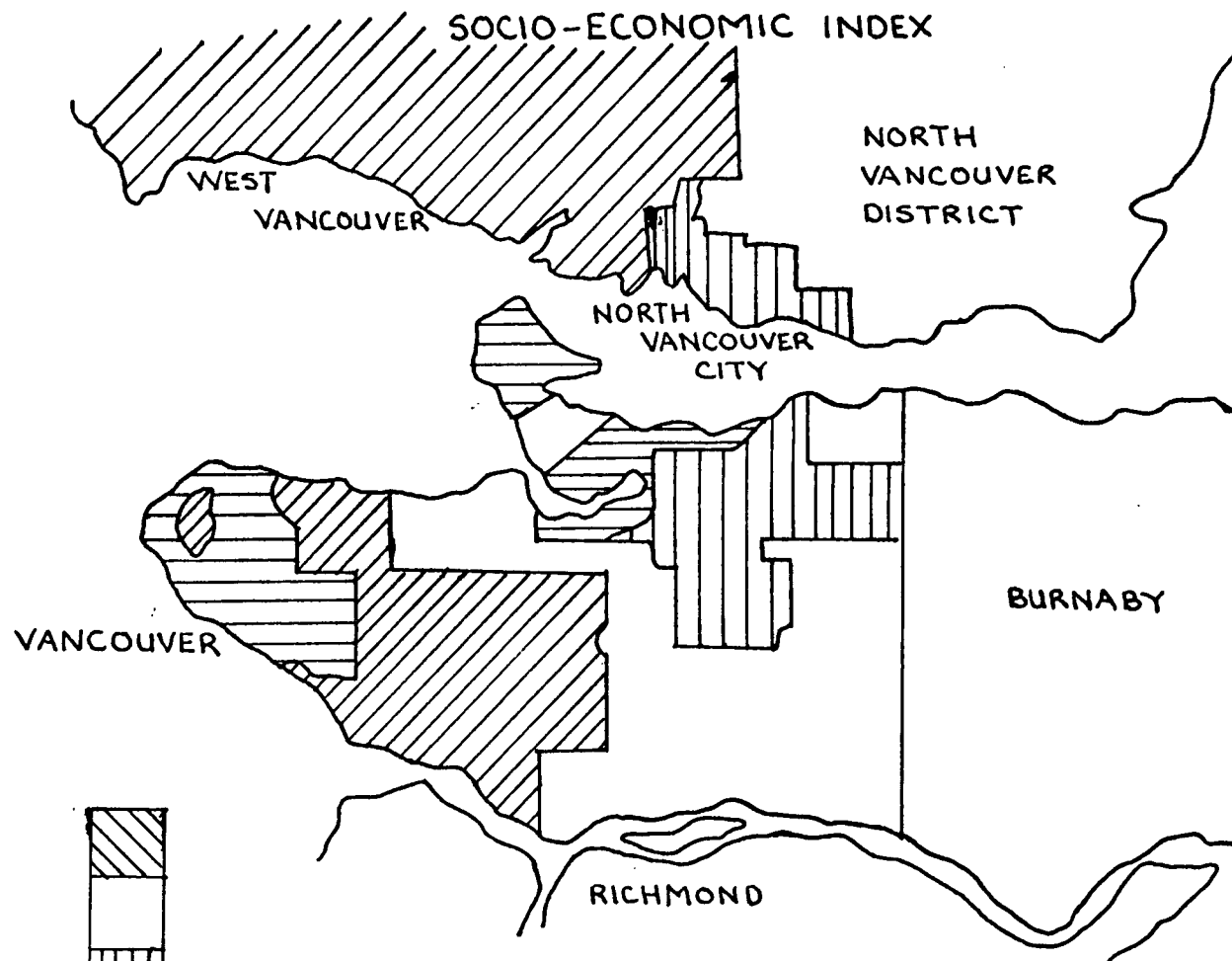
A mortgage is not necessarily used to finance a house purchase. A house can be given as security for a mortgage but the funds given may be for business purposes. It may also be a refinancing of an older mortgage or agreement. Because the agreements included in the sample seemed to be financing a house sale, it was necessary that only those mortgages used to finance house purchases be included in the sample. To derive meaningful statistics, like situations must be compared. To eliminate those mortgages not fitting this criterion, each mortgage remaining after the initial sampling had been completed was searched to discover whether a sale had occurred in 1971. If such a transaction existed for a particular mortgage, then it was included in the final sample of mortgages to be analyzed.

To do this search for a sale, the assessment records of the three City and Municipal Administrations on the North Shore were used. Because of constraints of time and money, the City of Vancouver's assessment records were not examined. Rather, the Teela Summary for 1971, was searched for each mortgage by the address of the mortgagor. From a total population for the four areas of 8755 mortgages, the sample to be used in this paper finally amounted to 1812 mortgages.

As already discussed in the preceding paragraphs, the two basic sources for data required in this study were the Teela Periodicals and Summary for 1971 and the assessment records of the North Shore municipalities. From the Teela periodicals, data on the agreements and the mortgages was taken. For each agreement for sale this information included the address, sales price, the down-payment, the periodic monthly

payment, and the interest rate. The address, the outstanding principal, the periodic monthly payment, the interest rate, as well as the name of the mortgagee was collected for each mortgage in the sample. As previously noted, the 1971 sales prices for the mortgages issued in the City of Vancouver were obtained from the 1971 Teela Summary while the sales for those issued on the North Shore were obtained from municipal assessment records.

Furthermore, each property transaction was allocated to a socio-economic group so that income comparisons could be drawn. This was done on the basis of Map One² which has the four areas under study separated geographically along major corridors into three zones - a high, medium, and low socio-economic status zone. As earlier delineated, socio-economic index was defined only in terms of the personal income of the family. Unfortunately, at this time the only income statistics available were those obtained in the 1961 Canada-wide census. It was on the basis of these statistics that Map One was drawn. The annual income levels separating the high, medium, and low socio-economic indexes were \$6500 and \$4500, respectively. (These figures were derived by tracing the socio-economic zones geographically back to personal income levels in each Census Tract³). If the personal incomes for June 1961 were given an index value of 100.0⁴ then the index value for June 1971 would be 178.0⁵. (No adjustments for cost of living changes). Using the previous indexes, the income separations in 1971 between high, medium, and low socio-economic index would be \$11,600 and \$8,000 respectively. The approximate value of the house which a family might own earning these amounts would be \$33,200 and \$24,000, respectively. These figures are based on the commonly accepted rule-of-thumb that a family's home should not exceed in value its income by more than a factor of three.



The use in 1971 of this 1961 socio-economic map of Greater Vancouver, brings up the question of its accuracy in being applied to the 1971 situation. Many economic, political, demographic, and physical changes, have occurred in Vancouver since 1961. These absolute changes, however, have not altered the relative positions of the various segments of Greater Vancouver.⁶ In other words, the census tracts with the high socio-economic index remain today the highest and similarly, the census tracts with the medium or low socio-economic indexes remain relatively constant in their positions.

DATA COMPILATION

To facilitate the efficient use of all this collected data, it was key-punched on to computer cards. The first operation performed by the computer on the data was to calculate the length of the term for each agreement and mortgage and then to transcribe it on to the particular computer card.

With over 2100 different transactions, the data could not be amassed nor could significant results be drawn merely by inspection of the collected information. Therefore, the first step undertaken by the computer was to calculate the means of the various terms on the basis of the four study areas and the three socio-economic levels. In addition, as a check on the significance of these means standard deviations of these results were also derived. On a similar basis, the distributions of these terms were calculated. Agreements and mortgages were included on these operations separately so that their numerical results could be compared.

To try to understand the relationship existing between the various terms, linear regression equations were derived by computer analysis. Once again, these operations were undertaken separately for agreements and mortgages, so that, their results could be compared. The basic purpose of this analysis was to relate two or more terms of an agreement or mortgage mathematically. An equation would be computed indicating the relationship between the variables (terms).

FOOT-NOTES - CHAPTER III

1. Teela Market Surveys, Vancouver, B.C., 1970 & 1971 issues.
2. Bell, I.L. An Overview for Social Planners. Research Dept. Community Chest and Councils of Greater Vancouver, Vancouver 1965, p.7.
3. Ibid, p. 42, 43, 44.
4. D.B.S. Employment Indexes and Average Weekly Wages and Salaries. Queen's Printer, Ottawa, D.B.S. 8003-512, April 1966, Table 6, p.257.
5. Statistics Canada, Employment Earnings and Hours. Queen's Printer, Ottawa, D.B.S. 72-002, November 1971, Table 15, p. 104.
6. Simmons. "Voting Behaviour and Socio-economic Characteristics The Middlesex East Federal Elections, 1965." Canadian Journal of Ecomics and Political Science. XXX lll (August, 1967) p. 393.

CHAPTER IV - ANALYSIS OF THE FIRST HYPOTHESIS

The first hypothesis, which is to be discussed in this chapter, is that during a period of economic recession, agreements are more prevalent than during a period of expansion in the economy.

Basically the data collected for agreements in 1970 and 1971 is compared with respect to the numbers of agreements issued and the terms charged. As will be amplified in later sections, the years 1970 and 1971 coincide respectively, with a period of economic recession and recovery in Canada.

Agreements for sale cannot be considered in isolation. They are a means of real estate finance completely inter-related with the financial structure of Canada's economy. Business cycles and institutional (government and private finance) changes all affect agreements as well as mortgages.

Aggregate demand in the economy is below its full capacity during a recession, therefore, inventories of goods and materials as held by firms,¹ increase. Interest rates, in general, climb. As part of governmental monetary policy the Bank of Canada interest rate is increased as a persuasive means of encouraging chartered banks and, as a result, other financial institutions to raise their interest rates. At the same time the money supply of the economy is reduced, stabilized, or permitted to grow, but at a rate less than would be the case under most economic circumstances.³ Government spending is also reduced or stabilized.⁴ Capital investment is low, unemployment high, inventories high, and over-all spending low.⁵ On the whole the economy is sluggish. In these conditions credit lending is reduced because the available supply of funds is low.⁶ In addition, institutional lending officers raise their loan requirements for giving credit,⁷ which is merely part of the over-all

pessimism that prevails the economy when it is in a recession. The stiffer requirements coupled with the high cost of credit forces the more marginal home buyers to use agreements for sale to finance their residential purchases.

On the other hand, a period of economic recovery, with respect to government monetary policy, is characterized by a bank rate that is being reduced, an expanding money supply and government spending that is increasing.⁸ Often fiscal policy is altered by reducing income tax to further encourage recovery.⁹ In this period of recovery capital investment is increased after the unused capacity of the economy is utilized. Inventories fall and unemployment is reduced as job opportunities open up.¹⁰ With the economic conditions easing up, credit is obtained more easily, so that, the marginal home buyers, who in a period of recession were forced to resort to using agreements for sale, can now obtain mortgage financing through one of the financial institutions.¹¹ In a time of recovery the requirements for credit are reduced, as is the cost of credit.

Given the following economic indicators, it follows that the year 1970 was a recession year while 1971 was a year of economic recovery. On Table One there is a very definite reduction in interest rates in Canada as a whole from 1970 to 1971. The spread between 1970 and 1971 varies anywhere between 1.00% and 0.50%. Similarly, the interest rates for NHA approved lender mortgages (see Table One) in British Columbia have a spread of approximately one percent. This applies to new and existing housing. Unfortunately, interest rates on residential mortgages for this study's area of concern, Vancouver, are not compiled separately.

TABLE ONE - BOND YIELDS AND MORTGAGE INTEREST RATES (1970 & 1971)¹²

- THE FOLLOWING ARE AVERAGE STATISTICS FOR CANADA

	<u>JAN.</u>	<u>FEB.</u>	<u>MAR.</u>	<u>APR.</u>	<u>MAY</u>	<u>JUNE</u>	<u>JULY</u>	<u>AUG.</u>	<u>SEP.</u>	<u>OCT.</u>	<u>NOV.</u>	<u>DEC.</u>
FEDERAL												
GOVERNMENT - 1970	8.31	8.31	7.93	8.04	8.23	8.09	7.91	8.00	7.88	7.94	7.50	6.99
BONDS - 1971	6.67	6.85	6.76	6.97	7.38	7.30	7.49	7.15	6.97	6.71	6.56	6.56
CORPORATE - 1970	9.36	9.33	9.28	9.27	9.34	9.30	9.18	9.23	9.21	9.25	9.09	8.87
BONDS -1971	8.16	8.33	8.39	8.49	8.53	8.64	8.68	8.52	8.41	8.27	8.19	8.30
CONVENTIONAL- 1970	10.58	10.54	10.58	10.60	10.58	10.53	10.38	10.40	10.36	10.35	10.28	10.16
MORTGAGES - 1971	9.94	9.72	9.28	9.20	9.25	9.34	9.46	9.53	9.55	9.55	9.26	9.10
NHA INSURED - 1970	10.06	10.27	10.21	10.29	10.28	10.24	10.03	9.94	9.97	9.86	9.83	9.79
MORTGAGES - 1971	9.65	9.47	8.98	8.84	8.79	8.80	8.88	8.99	9.05	9.09	9.05	8.91

(24)

TABLE TWO - AVERAGE INTEREST RATES, NHA APPROVED LENDER LOANS FOR HOME OWNERSHIP AND EXISTING HOUSING IN B.C.

	<u>NEW HOUSING</u>		<u>EXISTING HOUSING</u>	
	<u>1970</u>	<u>1971</u>	<u>1970</u>	<u>1971</u>
JAN.	9.98%	9.71%	10.21%	9.93%
FEB.	10.19	9.41	10.30	9.79
MAR.	10.40	9.04	10.37	9.47
APR.	10.24	8.97	10.64	9.10
MAY	10.41	8.86	10.67	9.06
JUNE	10.35	8.83	10.64	9.22
JULY	9.86	9.06	10.17	9.31
AUG.	10.17	9.11	10.14	9.44
SEPT.	9.90	9.08	10.22	9.51
OCT.	10.04	9.06	10.15	9.41
NOV.	10.08	9.06	10.11	9.12
DEC.	9.89	8.94	10.19	9.10

N.B. Above averages are weighted averages.

TABLE THREE - SELECTED ECONOMIC INDICATORS

	<u>1970</u>	<u>1971</u>
UNEMPLOYMENT RATE (B.C.) ¹⁴	7.6%	7.1%
BUILDING PERMITS (VAN.) ¹⁵		
Residential	\$168,998,000	\$201,531,000
Non-Res.	116,039,000	191,819,000
Total	285,037,000	393,350,000
MORTGAGE LOAN APPROVALS (B.C.) ¹⁶		
- N.H.A. insured & conventional	12,333 D.U.	20,502 D.U.
New Residential	9,215	16,503
Existing		
Total	21,548	37,005

TABLE FOUR - DWELLING UNIT STARTS¹⁷ AND BUILDING PERMITS¹⁸ FOR VANCOUVER, B.C.

<u>DWELLING UNIT STARTS^a</u>			<u>BUILDING PERMITS (Thousands of Dollar)</u>		
	<u>1970</u>	<u>1971</u>	<u>1970</u>		
			<u>Residential</u>	<u>Non-Residential</u>	<u>Total</u>
JAN.	950	1010	168,998	116,039	285,037
FEB.	1005	1210			
MAR.	1337	1368			
APR.	921	1303	<u>1971</u>		
MAY	542	949	201,531	191,819	393,350
JUNE	479	1427			
JULY	728	1570			
AUG.	1170	1074			
SEPT.	1455	1425			
OCT.	1884	1155			
NOV.	1304	1444			
DEC.	<u>1962</u>	<u>1618</u>			
TOTAL	13737	15553			

^a A dwelling unit is defined as a structurely separate set of living quarters having its own entrance from outside of the building, or from a common passage inside. All metropolitan areas and urban centers with a population or 10,000 or more...are enumerated completely each month.

TABLE FIVE - UNEMPLOYMENT RATE BY REGION (PER CENT)¹⁹

ANNUAL AVERAGE	<u>BRITISH COLUMBIA</u>
-1970	7.6
1971	7.1

MONTHLY AVERAGE	<u>BRITISH COLUMBIA</u>
-----------------	-------------------------

	<u>UNADJUSTED FOR SEASONAL VARIATIONS</u>		<u>ADJUSTED FOR SEASONAL VARIATIONS</u>	
	<u>1970</u>	<u>1971</u>	<u>1970</u>	<u>1971</u>
JAN.	7.3	9.4	5.8	7.6
FEB.	6.7	8.7	5.7	7.4
MAR.	7.0	8.3	6.5	7.7
APR.	8.6	8.1	6.1	7.6
MAY	8.1	6.8	8.3	6.8
JUNE	9.7	7.1	9.8	7.2
JULY	8.3	6.2	9.4	7.0
AUG.	7.1	5.4	8.7	6.7
SEPT.	6.6	5.5	8.2	6.8
OCT.	7.9	5.7	8.7	6.2
NOV.	8.6	7.1	8.2	6.8
DEC.	8.0	6.9	7.9	6.9

N.B. The unemployed as a percentage of the labour force for each region.

If there any differences between the interest rates charged in British Columbia as a whole and in Vancouver they are very slight. Vancouver's would tend to be marginally lower. However, rather than adjust the interest rate charged, the mortgage loan officer in these outlying communities is more likely to merely not give a mortgage. Table Three illustrates very clearly that economically 1971 was a much better year than 1970. The unemployment rate (unadjusted) in Vancouver decreased thirty-eight percent and the number of mortgage loan approvals in B.C. rose seventy-two percent. On a month-by-month basis dwelling unit starts in Vancouver have increased markedly, especially in the months from December to July of 1971. From this table it would seem that the early signs of recovery began in the fourth quarter of 1970 when housing starts almost doubled from the third quarter level. This early increase is appropriate because the housing industry has always been the first to react to a change in monetary policy. Table Five gives a very clear indication of the changes in the unemployment rate for B.C. over 1970 and 1971. From a high of 9.8% in June of 1970, it fell to a low of 6.2% in October of 1971 for the adjusted rate which is a 2.6% difference over a period of sixteen months.

TABLE SIX

		<u>1970</u>	<u>1971</u>
Number of Sales			
(Single-family Homes)	-	4235	4123
Agreements For Sale			
-Primary Means of Finance	-	552	331
-New Issue			
Number of Mortgages	-	3596	3586

N.B. 1970 - 12 Periods of Data Collection From Teela
 1971 - 9 Periods of Data Collection From Teela

TABLE SEVEN

		<u>AGREEMENTS FOR SALE</u>		<u>SALES</u>		<u>AGREEMENTS/SALES</u>	
		<u>1970</u>	<u>1971</u>	<u>1970</u>	<u>1971</u>	<u>1970</u>	<u>1971</u>
VAN.	-	422	268	3060	2891	13.8%	9.3%
NORTH VAN.	-	99	43	853	895	11.6	4.8
WEST VAN.	-	<u>31</u>	<u>20</u>	<u>322</u>	<u>337</u>	<u>9.6</u>	<u>5.9</u>
TOTAL SAMPLE	-	552	331	4235	4123	13.1%	8.0%

N.B. Source - Research Data

Interest rates were significantly lower than those of 1970, employment was higher, residential credit was much more plentiful, and construction levels were markedly higher. Because of these significant trends, it is safe to make the assumption that 1970 was a recession year and 1971 was a year of recovery.

Now that the economic conditions of 1970 and 1971 have been established, a comparison of the research results for agreements in those two years can be undertaken. Because 1970 was fifty percent sampled and 1971 was one-third sampled, the absolute number of sales, agreements, and mortgages cannot be related. However, if a ratio of agreements to sales is created and likewise for mortgages, comparisons may be drawn between the two ratios. This ratio quantifies the propensity to use agreements. On this basis, for every hundred residential sales in the study area there were 13.1 agreements issued in 1970 and only 8.0 agreements given in 1971. Therefore, the number of agreements was reduced by 5.1 in 1971 from the previous year, during which time the state of the economy improved from recession to advanced recovery. On the other hand, there were 85.0 mortgages issued in 1970 and 87.0 issued in 1971.

It is strange, though, that there was not a substantial off-setting increase in the number of mortgages. The mortgages issued increased by only two. This meant that more buyers used their own equity to purchase houses. Many buyers, who were previously owning, did not sell their former homes in 1970 because of the poor market conditions. Rather, they waited till 1971 when the real estate market had improved. This would account for the larger number of homes sold in 1971 than in 1970. Many of these people who waited for better market conditions probably

had one hundred percent equity in their property, hence, they could purchase new homes with no money borrowed. It would be very unlikely that a prospective home buyer would assume a mortgage issued in 1970, because those mortgages had a high interest rate. If he could not obtain mortgage financing, then he was forced to assume the mortgage already existing on the property. However, if the mortgage was issued previous to 1970 when lower interest rates prevailed, he might assume it. In addition, the buyer would be likely to assume an existing agreement on the property if its terms seemed reasonable with respect to present market conditions, especially the interest rate. Therefore, the reason why the relative number of mortgages did not increase more substantially probably stemmed from the fact that more families used one hundred percent equity and more buyers assumed existing agreements or mortgages depending on the terms available.

On the same basis of comparing the numbers of agreements to the numbers of residential sales, all three major areas have a significant reduction in the number of agreements issued per one hundred sales. That the City of Vancouver decreased the least can probably be accounted for by the large number of low socio-economic status families and by the large quantity of older homes in that area. North Vancouver decreased by more than half down to a level comparable to West Vancouver's. This tremendous reduction probably stemmed from the fact that North Vancouver would seem to be an area for which it would be relatively easy to obtain mortgage financing. It is a popular upper middle-income suburban area with good and plentiful amenities such as parks, schools, shops and roads. Its land values are increasing very quickly every year because the demand for land there exceeds the supply of land.

Most of its homes are not very low priced (below \$20,000 in value) nor are they too high priced (above \$50,000 in value). In other words, this area fits ideally into the credit requirements of most mortgage lenders.

TABLE EIGHT - AVERAGE TERMS FOR AGREEMENTS FOR SALE

	<u>VANCOUVER</u>	<u>NORTH VANCOUVER</u>	<u>WEST VANCOUVER</u>	<u>TOTAL</u>
<u>LOAN-TO-VALUE:</u>				
1970 -	0.719	0.767	0.697	0.727
1971 -	0.739	0.784	0.724	0.745
<u>INTEREST RATES:</u>				
1970 -	9.50%	9.639	9.750	9.519
1971 -	8.85%	9.570	9.053	8.961
<u>TERMS (YEARS):</u>				
1970 -	19.1	22.0	21.0	19.5
1971 -	16.5	22.1	22.3	17.7
<u>SALES PRICE:</u>				
1970 -	\$24,680	24,001	33,383	25,027
1971 -	\$26,046	25,210	38,763	26,702

N.B. SOURCE - RESEARCH DATA

The state of the economy not only affects the relative usage of agreements for sale but also the terms changed. Agreements do not exist isolated from the rest of the available financial instruments in the economy. They are, in actuality, all inter-related, so that, for example, a general rise in interest rates pushes up the interest rates on mortgages and, therefore, on agreements. Similarly, changes in the loan-to-value ratios and terms of mortgages also effect them for agreements.

In the time periods being considered in this paper, the state of the economy went from recession to recovery. 1970 was a year of tight money and a low level of growth, while 1971 was characterized by an easing supply of credit and an expanding economy from a growth point of view. Therefore given these trends in the economy, similar changes should have occurred in the terms changed for agreements.

Both loan-to-value ratios and interest rates (see Table Eight) were relaxed in severity. In all the study areas and for the total sample, the average loan-to-value ratio was increased, and thus the buyer could make a smaller cash down-payment to purchase the house. Similarly, interest rates fell by one-half a percent at the least. In addition to the changes in the means, there was a remarkable change in the distributions of both these terms. As is indicated in Graph A, loan-to-value ratios in 1971 tended to be significantly more spread out than their counter-parts in 1970. In fact, the standard deviation of the mean increased by 0.0123% to 0.1553% from 0.143%. In 1970 12.3% of the agreements had a ratio of greater than 0.85, while in 1971 27.5% had a ratio of greater than 0.85. The range for loan-to-value ratios of less than 0.60 accommodated 16.3% of all the

GRAPH A

DISTRIBUTION OF LOAN-TO-VALUE RATIOS
FOR
THE AGREEMENTS FOR SALE

NO. OF AGREEMENTS FOR SALE

110

100

80

60

40

20

0

< .60

.60-.65

.65-.70

.70-.75

.75-.80

.80-.85

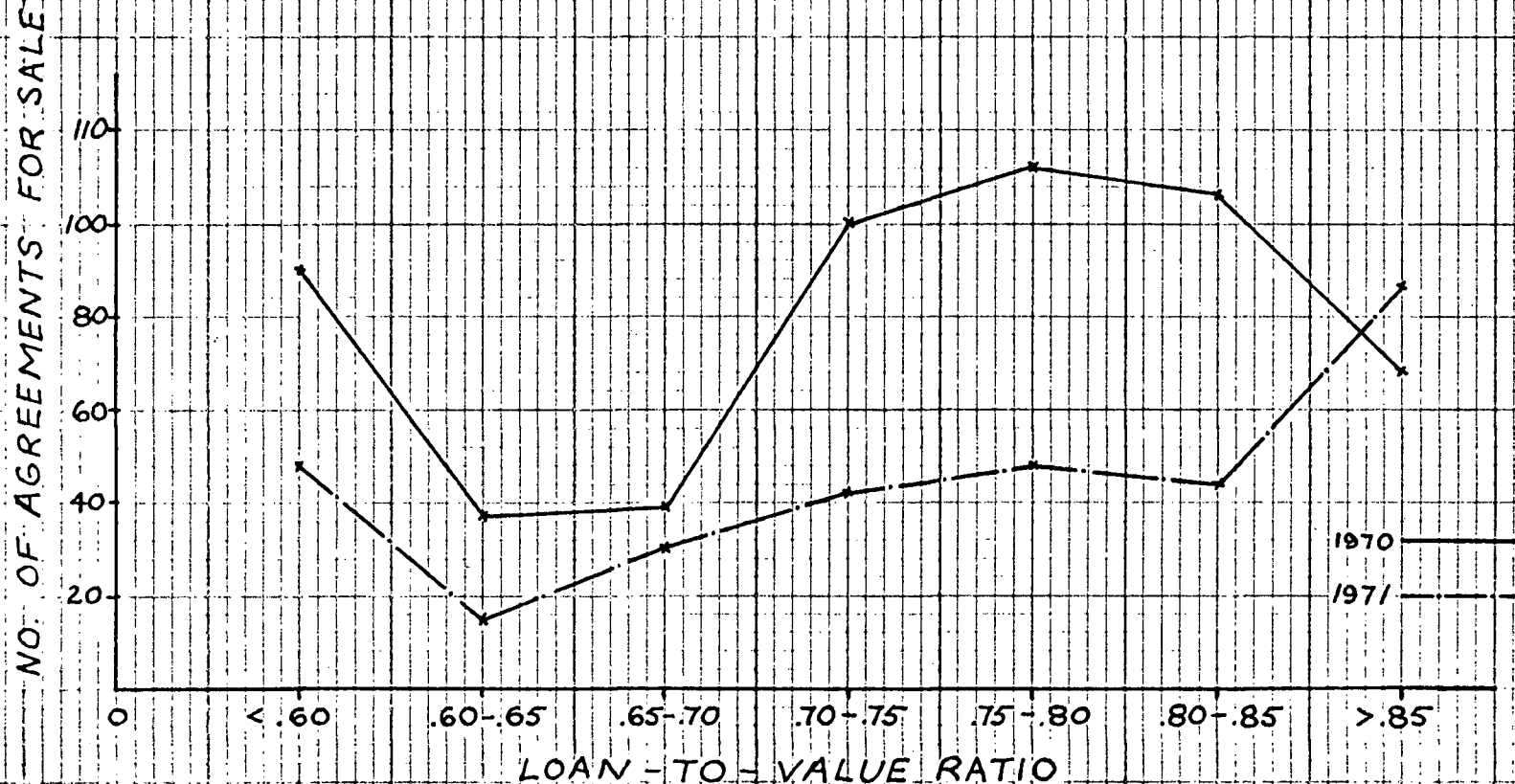
> .85

LOAN-TO-VALUE RATIO

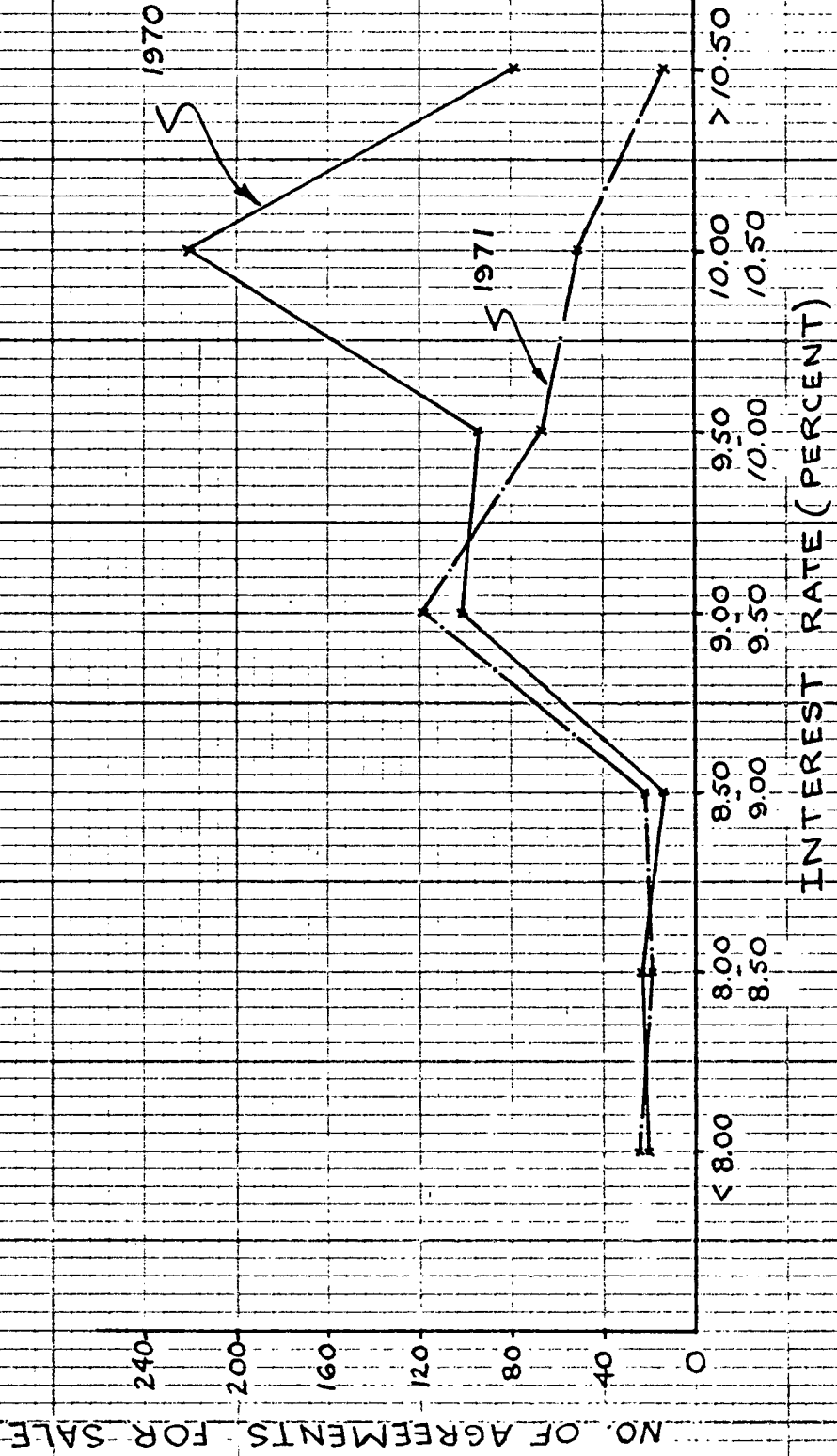
1970

1971

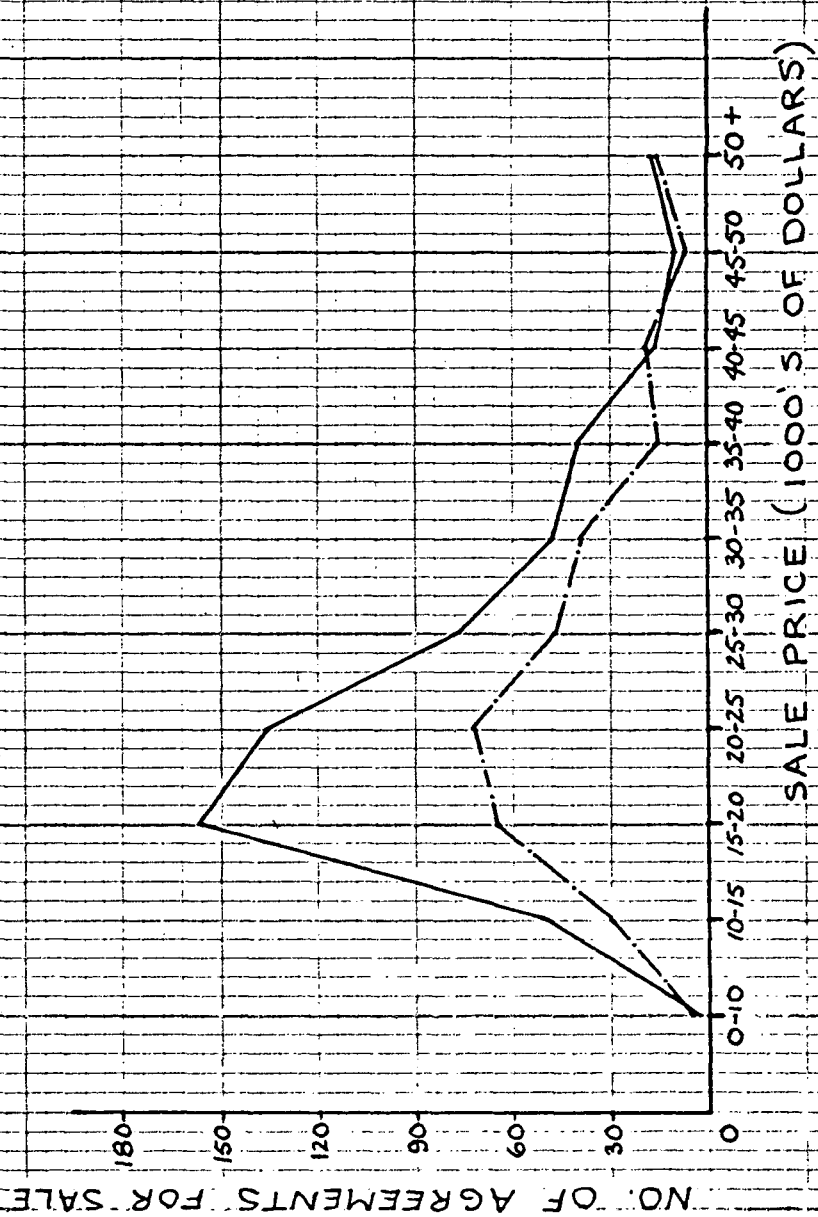
(36)



GRAPH B DISTRIBUTION OF INTEREST RATES
FOR THE AGREEMENTS



GRAPH C DISTRIBUTION OF SALE PRICES
FOR AGREEMENTS



agreements issued in 1970 and 15.4% of those given in 1971. Therefore the trend of loan-to-value ratios was in an upward direction.

Graph B clearly illustrates the changes in the distribution of interest rates between 1970 and 1971. In 1970 the mode which was in the range of 10.00% to 10.50% accounted for 40.4% of the agreements and in 1971, the mode which was in the range of 9.00% to 9.50% amounted to 38.3%. In addition, the standard deviation of the means varied by only .0007% from one year to the next. Although, the interest rates charged fell significantly from 1970 to 1971, the distributions did not alter very much. However, at the extremes, less than 8.00% and greater than 10.50%, they decreased proportionately.

The length of the terms of the agreements varied inconsistently from area to area. In total (see Table Eight), the average term decreased by 1.8 years. But, in both West Vancouver and North Vancouver (City and District), the terms increased by 0.1 years and 1.3 years respectively. Only in Vancouver did the term span a briefer period. It decreased by 2.6 years. It should be noted that Vancouver amounts to 81.0% of the total sample. Therefore, over 80.0% of the total sample of agreements had their terms decreased by 2.6 years on the average. Not only did the average term decrease but also the standard deviation of the mean decreased by 2.26 years which indicates that the distribution of terms was more concentrated in 1971 than in 1970.

Although the level of sales prices cannot be directly linked to the state of the economy, there are indirect linkages. When an economy is healthy and growing, people's incomes increase thus allowing people to bid for the more desirable dwellings. Assuming that most families would prefer to live in a single-family, detached house²⁰, then the

prices of these types of dwellings would increase. Therefore, 1971 with its healthier economy would most likely have higher residential sales prices than 1970. This previous argument is one means of explaining the higher average sales prices for agreements in 1971 (see Table Eight). The other argument, equally as hypothetical as the previous one, is that lower interest rates (see Table One and Eight for evidence that interest rates were lower in 1971 than in 1970) mean that prices must be higher. This analysis assumes that the vendor and the purchaser are sophisticated investors completely aware of the opportunity costs of their investments, statistically an unprovable statement.

Statistically, the reason for the higher average sales price would seem to originate from a movement of the mode sales price and a change in the distribution curve of sales prices. (See Graph C). The mode has increased from the range \$15,000 to \$20,000 to the range \$20,000 to \$25,000. From being steeply concentrated, the distribution line has spread out more. In fact, in the range of \$30,000 and above, there were 23.9% of the agreements in 1970 and 26.8% of them in 1971 which is an increase of 2.9%.

On the basis of the statistical results given in this chapter, it can be concluded that very definitely the state of the economy, nationally as well as locally, affects not only the relative usage of agreements but also the terms charged. The year 1971, being a year of economic recovery and growth, had significantly fewer agreements for sale issued than in 1970. In addition, the terms, especially the loan-to-value ratios and interest rates, were not as harsh financially as they had been in 1970. The loan-to-value ratios were higher and the interest rates were lower.

FOOTNOTES - CHAPTER IV

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2. Ibid., p. 22
3. LOC. CIT.
4. Ibid., p. 16
5. LOC. CIT.
6. Committee on The Working of The Monetary System, "The Influence of Monetary Measures," Canadian Banking and Monetary Policy, McGraw-Hill, Toronto, 1965, p. 50.
7. LOC. CIT.
8. Officer And Smith, 1970, p. 22, 23.
9. Ibid., p. 23
10. Ibid., p. 16.
11. Committee on The Working of The Monetary System, "The Influence of Monetary Measures," Canadian Banking and Monetary Policy, McGraw-Hill, Toronto, 1965, p. 51.
12. Statistics Canada, Canadian Statistical Review, Queen's Printer, Ottawa, Volume 47, March 1972, Table 76, p. 64.
13. Confidential Information from the B.C. Regional Office of C.M.H.C. in Vancouver.
14. Op.Cit., Table 25, p. 20.
15. Ibid., Table 25, p. 20
16. Ibid., Table 39, p. 33.
17. Statistics Canada, Canadian Statistical Review, Queen's Printer, Ottawa, Volume 47, March 1972, Table 6, p. 80.
18. Ibid., Table 25, p. 20.
19. Ibid., Table 8, p. 44.
20. Hellyer, Paul. Task Force on Housing and Urban Re-Development. Queen's Printer, Ottawa, January, 1969, p. 17.

CHAPTER V - ANALYSIS OF THE SECOND HYPOTHESIS

The second hypothesis states that a person with a low socio-economic index is more likely to finance his residential purchase with an agreement than is a person with a medium or a high socio-economic index and that the low index buyer is likely to obtain more favourable terms with an agreement than with a mortgage. The hypothesis concentrates on the low socio-economic index because it is this group that always has problems financing house purchases. This group tends to have a larger proportion of marginal financial risks, which, in most cases means that they require more lenient financial terms especially with respect to the down-payment.

To ascertain whether socio-economic status effects the relative usage of agreements, the percentage distributions by socio-economic index were computed (see Table Nine). For the total sample, 6.00% more buyers with a low socio-economic index used agreements than mortgages. For the medium and the high indexes, there were in each case approximately 3.00% fewer agreements than mortgages. Therefore, on the basis of the statistics offered here, the conclusion would be that for a large area with a wide variety of social and economic classes persons with a lower relative socio-economic status would be more likely to finance a residential purchase with an agreement than would those with a higher status.

But if the individual study areas are isolated from the total sample (see Table Nine) the results differ. The statistical results for the City of Vancouver are more strongly pronounced than those for the total sample. This is probably because the City has a well-mixed population vis a vis its socio-economic status. With a population of

TABLE NINE - DISTRIBUTION OF SOCIO-ECONOMIC STATUS AMONGST STUDY AREAS

- NUMBER OF TRANSACTIONS

<u>SOCIO-ECONOMIC STATUS</u>		<u>CITY OF VANCOUVER</u>		<u>CITY OF NORTH VANCOUVER</u>		<u>DISTRICT OF NORTH VANC.</u>		<u>DISTRICT OF WEST VANC.</u>		<u>TOTAL</u>	
		<u>Mortgage</u>	<u>Agreements</u>	<u>M.</u>	<u>A.</u>	<u>M.</u>	<u>A.</u>	<u>M.</u>	<u>A.</u>	<u>M.</u>	<u>A.</u>
HIGH	-	319	53	5	0	45	4	119	17	488	74
MEDIUM	-	470	132	82	4	319	22	107	2	978	160
LOW	-	184	66	43	11	94	2	25	0	346	79
TOTAL	-	973	251	130	15	458	28	251	19	1812	313
HIGH	-	32.8%	21.0	3.8	0.0	9.8	14.3	47.4	89.5	26.9	23.6
MEDIUM	-	48.4%	52.6	63.0	26.7	69.7	78.6	42.6	10.5	53.9	51.1
LOW	-	18.8%	26.4	33.2	73.3	20.5	7.1	10.0	0.0	19.2	25.2

N.B. SOURCE - RESEARCH DATA

approximately half a million people, it is evenly represented by every social and economic group. The low index group has 7.6% more agreements in it than mortgages. It is also significant that there are 4.20% more agreements in the medium socio-economic group than mortgages. Unfortunately, the reason for this cannot be objectively explained. Coincidentally, a similar result existed for the District Municipality of North Vancouver. A plausible explanation of this phenomenon seems to be that the difference stems from purchasers who are themselves in the medium socio-economic group but are living in low index areas. Institutional mortgages tend to generalize on the basis of geography. Although difficult to prove, many mortgagees are extremely hesitant to lend money to persons living in the Strathcona area of Vancouver or for that matter, to families living east Main Street. This bias would force some potential mortgagors to finance their home purchases with an agreement instead. Similar results were obtained in the District of North Vancouver because it is the only area other than Vancouver that is almost represented in all the spectrums of society. It does however tend to have a larger medium range of population. The relative differences between the high and the low indexes are reversed for agreements and for mortgages. Mortgagees look upon this area very favourably, so that in the low socio-economic range there are more mortgages issued relatively than agreements. But, in the high group, there are 4.50% more agreements given than mortgages. This is most likely the result of mortgagees tending not to issue loans valued at greater than 50,000 dollars. Because this area does have a relatively large number of homes above this sales price level, many persons are forced to use agreements to finance the transaction.

Similarly, West Vancouver with its exceptionally high proportion of wealthy families tends to have many of its homes valued at greater than \$50,000. For mortgages, the split between high and medium socio-economic status is fairly similar with the high taking precedence by 4.8%. But for agreements, the split is 79.0% between the two levels with the high predominating. By a factor of nearly two, the percentage of agreements in the high socio-economic range exceeded that of mortgages. It seems that mortgage financing accounted for most of the property sales while the agreements took care of the marginal sales with exceptionally large sales prices.

In conclusion, the socio-economic status of the buyer seemed significant in determining the possibility that the sale may be financed with an agreement. Buyers with a low index are more likely to have used an agreement than are high index purchasers except for the sales involving a loan of greater than \$50,000 in which case, the buyer was also more likely to use an agreement.

This section endeavours to indicate the effect of a buyer's socio-economic status on the terms charged under a mortgage and an agreement for sale contract. The basic approach of the analysis is to compare the statistical results applicable to mortgages to those of agreements by socio-economic index.

Basically, the loan-to-value ratios as separated by socio-economic group fell into the same pattern as do the results for the entire sample. For each class, the mean ratio applicable to agreements exceeded that applicable to mortgages by about 5.5%. (See Table Ten) In addition, the standard deviation of this mean for mortgages exceeded that for agreements by about 20.0% which meant that mortgages are distributed

in a much wider pattern than are agreements. (see Table Eleven) However, to understand the effect of the socio-economic index on the respective terms, a measure of the terms sensitivity to the index must be computed. This was calculated in a rather gross fashion on Table Twelve. For the change from the high to the low socio-economic index the appropriate change in the average term was measured and converted to a percentage figure. This was done for both agreements and mortgages. For the loan-to-value ratio, mortgages underwent the greater change than agreements by 3.9% with a positive trend. This, in effect, meant that a change in the index had a stronger effect on mortgages than on agreements with respect to loan-to-value ratios.

Interest rates as separated by socio-economic group also displayed the same trends as did the total sample. For all three ranges, there was approximately a 1.00% interest rate difference between the two sources of finance with mortgages having the highest average rates. As opposed to the results for the loan-to-value ratios, the standard deviations as seen on Table Eleven for mortgages exceeded those for agreements. The concentration of interest rates around the mean for mortgages was much less than that displayed for agreements. As was the case for the previously discussed loan-to-value ratio, the sensitivity of the interest rates to the socio-economic index was greater for mortgages than for agreements. In other words, an equivalent change in the index created a larger change amongst mortgages than agreements.

The average length of the term for mortgages in all three socio-economic groups was greater than for agreements. (See Table Ten) The variation ranged from two years to four and a half years. The greatest difference occurred in the middle range with the least variation being in the high range. The standard deviation of the mean

TABLE TEN - AVERAGE TERMS BY SOCIO-ECONOMIC INDEX

	<u>HIGH</u> <u>S.E. INDEX</u>		<u>MEDIUM</u> <u>S.E. INDEX</u>		<u>LOW</u> <u>S.E. INDEX</u>		<u>TOTAL</u>	
	<u>MTG.</u> Mortgage	<u>A/S</u> Agreement for Sale	<u>MGT.</u>	<u>A/S</u>	<u>MGT.</u>	<u>A/S</u>	<u>MGT.</u>	<u>A/S</u>
LOAN/VAL.	- 0.65	0.71	0.69	0.74	0.74	0.78	0.72	0.75
INT. RT.	- 9.775%	8.81	9.72	8.97	10.15	9.08	9.82	8.96
TERM	- 21.7 yr.	19.8	21.7	17.2	20.1	16.6	21.4	17.7
SALE PR.	-\$41,715	37,526	28,257	25,227	20,668	19,550	30,432	26,702
LOAN AMT.	-\$25,866	26,219	18,861	18,231	15,592	15,128	20,123	19,337
MONTHLY PAYT.	-\$237	260	173	180	150	165	186	195
M.P./L.A.	- 9.16%	9.8	9.16	9.9	9.6	10.9	9.2	10.1

N.B. SOURCE - RESEARCH DATA

TABLE ELEVEN - STANDARD DEVIATION OF THE TERMS BY SOCIO-ECONOMIC INDEX

		<u>HIGH</u> <u>S.E. INDEX</u>		<u>MEDIUM</u> <u>S.E. INDEX</u>		<u>LOW</u> <u>S.E. INDEX</u>		<u>TOTAL</u>	
		<u>MGT.</u> Mortgage	<u>A/S</u> Agreement for sale	<u>MGT.</u>	<u>A/S</u>	<u>MGT.</u>	<u>A/S</u>	<u>MGT.</u>	<u>A/S</u>
LOAN-TO-VALUE	-	0.187	0.158	0.193	0.154	0.201	0.148	0.307	0.155
INT. RT.	-	1.22%	1.47	0.97	1.55	1.25	1.38	1.11	1.49
TERM	-	4.77 yr.	9.21	4.60	6.05	4.53	4.95	4.68	7.24
SALE PR.	-	\$19,570	17,855	11,016	9,091	18,283	9,372	16,956	13,473
LOAN AMT.	-	\$11,000	13,518	6,336	6072	6,294	6,557	8,688	9,444
MONTHLY PAYT.	-	\$93.09	176.09	58.63	55.93	60.38	87.09	76.90	110.35

N.B. SOURCE - RESEARCH DATA

TABLE TWELVE - THE DIFFERENCE IN THE TERMS (MEAN) BETWEEN
THE HIGH AND LOW SOCIO-ECONOMIC INDEX

HIGH TO LOW
SOCIO-EC. INDEX

	<u>Mortgage</u>	<u>Agreement</u>	<u>Mortgage</u>	<u>Agreement</u>
LOAN-TO-VALUE -	0.09	0.07	13.8%	9.9%
INTEREST RATE -	0.37%	0.27%	3.8%	3.1%
TERM -	(5 - 6 yr.)	(3.2 yr.)	(25.8%)	(16.2%)
SALES PRICE -	(\$21,047)	(\$17,976)	(50.4%)	(47.8%)
OUTSTANDING PRINCIPAL -	(\$10,274)	(\$11,091)	(39.7%)	(42.2%)
MONTHLY PAYMENT -	(\$87.00)	(\$95.00)	(36.7%)	(36.5%)

N.B. - Original figures taken from Table Twelve
 - Numbers inside the brackets are negative
 - Source - Research Data

term varied only a little for mortgages but for agreements it went from 9.21 years in the high group to 4.95 years in the low one. This difference probably stemmed from the institutional resistance applied both publicly and privately to the mortgage market. In other words, the length of the term tended to be fairly standardized for residential mortgages. For agreements, however, there were institutional conventions; each transaction was quite separate with few outside interferences. Once again, the mortgages displayed much greater sensitivity to changes in the socio-economic index. Under similar conditions, mortgages underwent a 25.8% negative change while agreements only had a 16.2% negative change in the length of their respective terms.

The sales price of the average transaction in each group was at its peak in the high socio-economic index and at its lowest point for the low index. The difference in price between mortgages and agreements varied from \$4181 in the high index group and to \$1118 in the low index group. In all three levels, the sales price of the average mortgage was greater than the price of the average agreement. Furthermore, the standard deviation of the mortgages exceeded that of the agreements in all three groups. In the low socio-economic index, the standard deviation of the mortgages was 95.0% greater than that of the agreements while in the other two the difference was only 9.5% and 21.5%, respectively. In addition, the mortgages had a 2.6% greater change than the agreements from the high to the low socio-economic index. Therefore mortgages showed a greater drop in sales prices than did agreements as the socio-economic index decreased.

The loan amount or the outstanding principal, as it is more commonly known, had no real consistent pattern. For the high socio-

economic index, the average for the agreements was the larger one by \$353 but for the medium and low indices the larger one was the mortgage group by \$631 and \$464, respectively. The relative closeness of the absolute figures as compared to the previously discussed figures was understandable given the higher loan-to-value ratios (see Table Ten). For each of the three indices, the standard deviations had only slight differences between mortgages and agreements. On the whole, the differences were not significant. It is interesting to note that only in this category were agreements more sensitive to changes in the socio-economic index than were mortgages. As the index decreased, the outstanding principal on an agreement reduced more than it did on a mortgage.

The average monthly payments in each of the three index groups followed the same pattern as existed for the total sample of this study. The average monthly payment for agreements exceeded that of mortgages in each of the three classes by 9.7%, 4.5%, and 10.0%, respectively. It has also decreased in dollar value as the index has gone from high to low. The standard deviation of the mean monthly payments for agreements exceeded that of mortgages by 89.2% and by 41.8%, respectively in the high and low socio-economic index, while for the medium range, the variation was marginal. As opposed to the previously discussed five terms, the monthly payment for both mortgages and agreements showed very similar sensitivity to changes in the socio-economic index. The difference in the changes (see Table Twelve) was only 0.2% which is an insignificant variation.

LIMITATIONS OF THE SOCIO-ECONOMIC INDEX

Before discussing the conclusions on the basis of the previous analysis of the results in this chapter, the limitations of the socio-economic index as it is used in this study should be delineated.

First, although it purports to include many variables, it was entirely based on personal income levels as they were reported in the 1961 Canada census. Factors, such as, the type of employment, the kind of area that the house is located in, the quality of the house, et cetera, were all ignored in the formation of the socio-economic index. They were, of course, extremely difficult to quantify and then to combine all in one index. Because of this latter problem, one is forced to base such an index on personal income levels.

Secondly, the problem of applying 1961 averages to 1971 was extremely difficult to circumvent. This point has been discussed in a previous chapter and the use of old data for the present has been defended, but it remains a problem affecting the results of this study. Unfortunately, obtaining more recent data was impossible. The 1971 census figures on personal incomes by census tract will not be available till very late in 1973. Furthermore, it seems from the author's own investigations that no other bodies, either private or public, keep such information up-dated to the present. They all depend, also, on the Census.

Thirdly, the numerical values for each socio-economic index were only gross ranges. They were all averages of the data collected in 1961. Unfortunately applying averages to specific data created inaccuracies in the final results. Again, however, this was the only way that such an undertaking as this study could be managed. The ideal

procedure would be to obtain the actual personal income level from each mortgagor and purchaser by direct questioning. This method would be extremely time-consuming and costly.

CONCLUSIONS

The socio-economic index as it is used in this study was supposed to be a gross measure of the level of personal collateral that a purchaser could offer. It indirectly was a measure of the risk that a person was to a vendor or a mortgagee. The lower was the socio-economic index, the higher, supposedly, was the risk and vica versa for a high index. Therefore, such an index should have implications for the terms charged in an agreement for sale and in a mortgage.

It has already been shown (see Table Nine) that a person with a low socio-economic status was more likely to use an agreement and conversely for a person with a high index. Now, what effect, in total, did socio-economic status have on the terms charged?

The first conclusion was that as the socio-economic index decreased, that is as personal incomes decrease, the loan-to-value ratio and the interest rate were likely to increase and the length of the term was likely to decrease. Although the trends were similar for both mortgages and agreements, the relative levels of the afore-mentioned terms for each was different. For mortgages and agreements, the mean loan-to-value ratio was higher for the low index group. Comparing the two means of finance, agreements had the higher ratio which meant that a vendor in the low socio-economic group could borrow more using an agreement than using a mortgage. This followed because the more marginal financial risk would have to use an agreement probably because he could not amass a large enough down-payment to use a mortgage.

As the socio-economic index decreased, the interest rates for both means of finance increased. This was partially a reflection of the higher risk involved in lending to a low socio-economic status person. The interest rate differentials between mortgages and

agreements resulted because of the shorter term for agreements and the higher mean monthly payments. The term was shorter for the low socio-economic group and therefore stiffer (larger periodic payments). The relatively larger monthly payment could be observed when the monthly payments were related to the outstanding principal. For both mortgages and agreements, the low socio-economic group had the highest monthly payments in terms of the amount borrowed (see Table Ten). Given the higher interest rate and shorter term, such a large proportion was appropriate. In addition, this proportion was relatively larger for agreements. This was mainly the result of the very short term of amortization for agreements vis a vis mortgages.

Therefore, it could be concluded that the socio-economic level of a borrower definitely affected the likelihood of using an agreement and also the terms charged. A high socio-economic group, would have to pay less periodically for a loan outstanding than would a low index group. Similarly, this group would receive lower interest rates and longer terms, but, its loan-to-value ratios would be higher. In other words, it would have to come up with more of its own equity.

CHAPTER VI - ANALYSIS OF THE THIRD HYPOTHESIS

The under-riding purpose of this study is to understand why agreements for sale are used to finance residential property purchases as opposed to mortgaging the property. For this reason the hypothesis to be studied in this chapter states that the terms on agreements show a greater variation than those on mortgages and that the variation is a direct reflection of quality differences with respect to the borrower and his financial collateral. Specifically, the terms of both these means of finance are analyzed together. By understanding the differences, especially with respect to their financial severity, it is determined deductively why agreements would be used rather than the traditional mortgage. Furthermore, by regressing the six major variables in various combinations, the relationship between the variables is derived. The regression equations drawn for the mortgages and for the agreements are compared to further assist understanding why one means of finance is used in place of the other. Therefore, by supplanting the original statistics with the regression equations, the motivations to use agreements for sale can be much better understood.

Basically, the following discussion analyzes the statistical differences between mortgages and agreements and then it endeavours to formulate logical reasons for these variations.

TABLE THIRTEEN - AVERAGE TERMS - AGREEMENTS FOR SALE & MORTGAGES

	<u>VANCCOVER</u>	<u>NORTH</u> <u>VAN CITY</u>	<u>NORTH</u> <u>VAN DIST.</u>	<u>WEST</u> <u>VAN</u>	<u>TOTAL</u>
LOAN/VALUE					
AGREEMENT	- 0.739	0.821	0.765	0.724	0.745
MORTGAGE	- 0.689	0.698	0.779	0.713	0.715
INT. RATE					
A/S	- 8.847%	9.717	9.518	9.053	8.961
MTGE	- 9.852	10.157	9.633	9.833	9.816
TERM					
A/S	- 16.56 yr	21.49	22.49	22.27	17.674
MTGE	- 20.63	20.79	23.02	21.86	21.42
SALE PRICE					
A/S	- \$26,046	21,100	27,404	38,763	26,702
MTGE	- \$28,085	27,861	29,931	41,779	30,432
LOAN AMT.					
A/S	- \$18,706	17,299	20,673	27,308	19,337
MTGE	- \$18,158	17,613	21,325	26,851	20,123
MONTHLY PAYT.					
A/S	- \$193.54	160.13	186.46	255.58	195.07
MTGE	- \$170.97	171.55	188.98	245.59	185.90

N.B. SOURCE - RESEARCH DATA

TABLE FOURTEEN - STANDARD DEVIATIONS - AGREEMENTS & MORTGAGES

	<u>VANCOUVER</u>	<u>NORTH VAN CITY</u>	<u>NORTH VAN DIST.</u>	<u>WEST VAN</u>	<u>TOTAL</u>
LOAN-TO-VALUE -					
AGREEMENTS -	0.159	0.123	0.128	0.137	0.155
MORTGAGES -	0.203	0.377	0.408	0.364	0.307
INT. RATE					
A/S -	1.605%	0.576	0.738	0.705	1.492
MTGE -	1.050	1.434	1.115	1.093	1.112
TERM					
A/S -	6.580 yr.	4.621	6.722	11.190	7.242
MTGE -	4.614	4.688	4.110	5.053	4.675
SALE PRICE					
A/S -	\$13,689	4,460	8,137	14,981	13,473
MTGE -	\$16,794	21,258	10,329	19,985	16,956
LOAN AMT.					
A/S -	\$9,663	3,693	6,315	9,565	9,444
MTGE -	\$7,719	7,459	7,196	11,157	8,688
MONTHLY PAYT.					
A/S -	\$118.02	34.36	46.90	87.58	110.35
MTGE -	\$70.53	87.61	60.11	91.09	76.91

N.B. SOURCE - RESEARCH DATA

ANALYSIS OF STATISTICAL RESULTS:

For the total sample, the average loan-to-value ratio for agreements was 3.00% larger than that for mortgages. As can be seen on Table Thirteen, Vancouver, which has the vast majority of agreements and mortgages transacted, has an average loan-to-value ratio 5.00% greater for agreements than for mortgages. The other three areas have only a small difference among their respective loan-to-value ratios. It is interesting to note that the latter three areas have more than a one hundred percent difference in their standard deviations for their average ratios while Vancouver, which had a large gap between the average ratios for agreements and mortgages, has only a one-third difference in the standard deviations. (see Table Fourteen). In addition the standard deviation of the mean loan-to-value ratio for the mortgages was twice that for the agreements. In other words, the spread of ratios was twice as concentrated for mortgages as for agreements.

Graph D illustrates clearly the separate distributions for mortgages and agreements of their loan-to-value ratios. Their curves were very similar with respect to their peaked natures. However, it should be noted that mortgages did spread out further for the lower loan-to-value ratios while the agreements distributed themselves toward the higher end of the scale in relatively larger numbers. In fact, 21.4% of all mortgages had a loan-to-value ratio of less than 60.0% while only 15.3% of all agreements were in the same range. On the other hand, 27.5% of all agreements had a loan-to-value ratio of greater than 85.0% while only 6.7% of all mortgages had ratios that fall within this range. In addition, both the medians and the modes had similar differences. For the mortgages, they were in the range of 70.0% to 75.0%

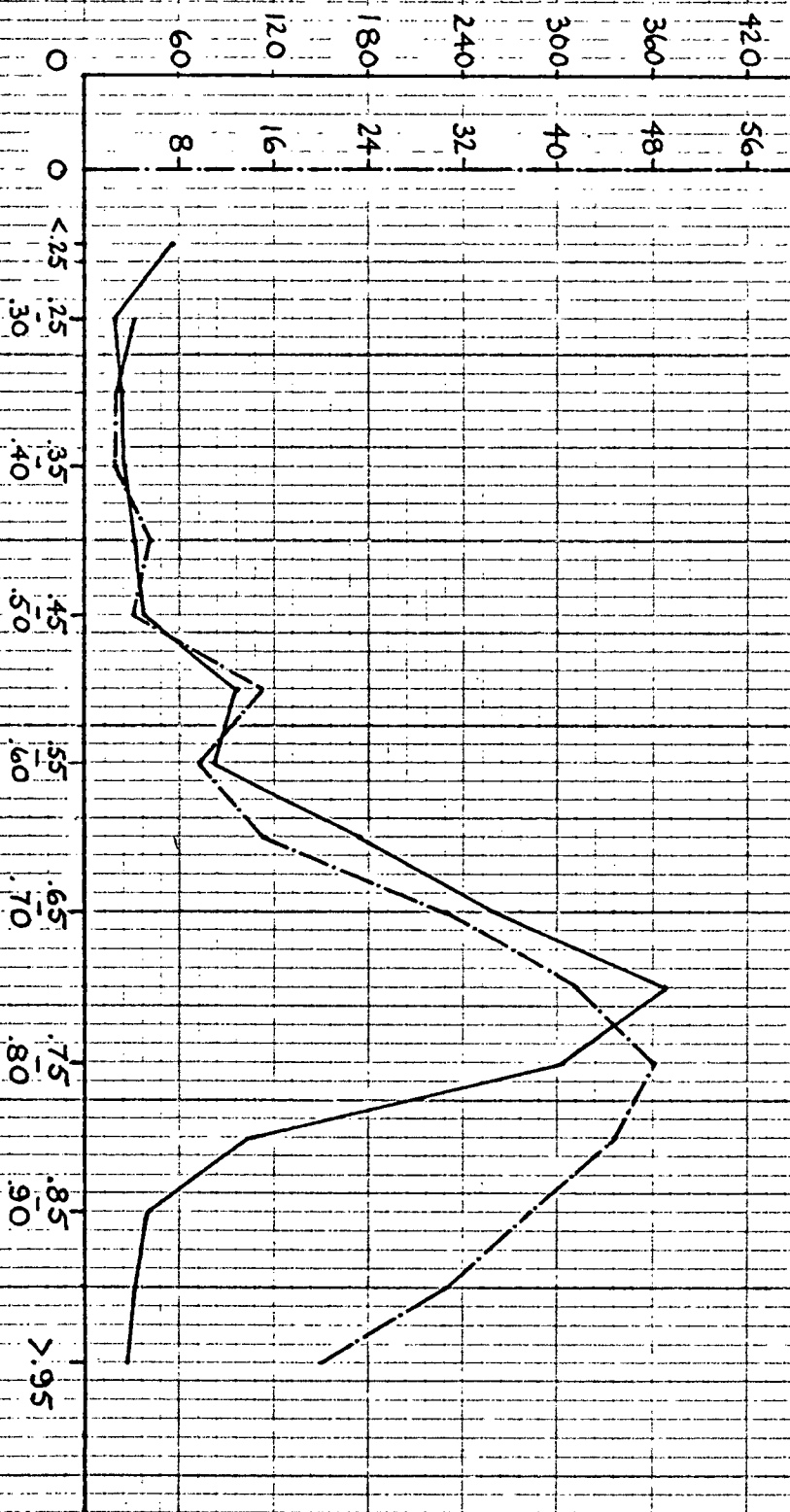
GRAPH D DISTRIBUTION OF MORTGAGES AND AGREEMENTS

MORTGAGES AGREEMENTS

FOR
LOAN TO VALUE

NUMBER OF TRANSACTIONS

LOAN TO VALUE RATIO



while for agreements they were in the 75.0% to 80.0% range. On the whole, a prospective home buyer could make a smaller down-payment by using an agreement than if he used a mortgage to finance his purchase.

The average interest rates for the whole sample varied by approximately one percent between mortgages and agreements. As is evident on Table Thirteen, the interest rates charged by mortgagees exceeded that charged by vendors by 0.955%. Except for the District Municipality of North Vancouver, this size of spread applied to all of the study areas. Unfortunately, the differences between areas could not be easily explained. It might be that the vendors in one area might be more knowledgeable about the existing market conditions than in another. It is interesting to note that the standard deviation of the average interest rate was significantly larger (anywhere from 0.30% up to 0.86%) for mortgages than for agreements.

Although there was almost a one percent spread between the average interest rates charged by mortgagees and by vendors, the modal interest rates were identical. They both were in the range of 9.00% to 9.50% (see Graph E). However, the median interest rates did differ. For mortgages, it was in the range of 9.50% to 10.00% and for agreements, it was in the 9.00% to 9.50% segment. On the whole, interest rates on mortgages were higher than for agreements. Furthermore, it seems from Graph E that the interest rates for agreements tended to be distributed in larger numbers at the lower end of the scale than were mortgages. Conversely, the interest rates for mortgages were more heavily distributed at the upper end of the graph. In fact 20.4% of all the agreements in the sample had an interest rate lower than 9.00% while only 0.72% of all the mortgages were in that category. However, in the

MORTGAGES
720

AGREEMENTS
120

GRAPH E - DISTRIBUTION OF INTEREST
RATES FOR MORTGAGES AND
AGREEMENTS (1971)

NO. OF TRANSACTIONS

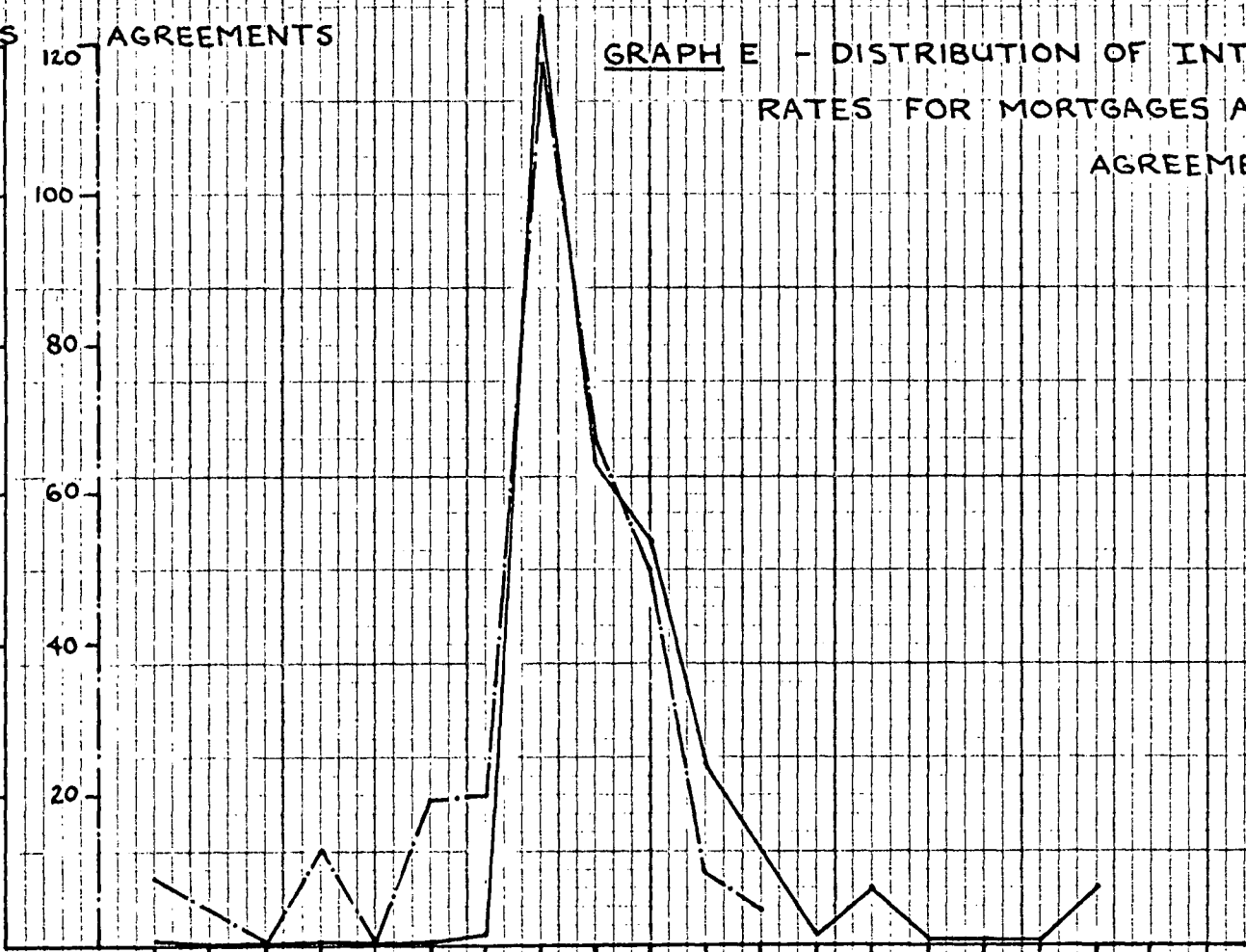
600
480
360
240
120

100
80
60
40
20

< 6.00 6.00 6.50 7.00 7.50 8.00 8.50 9.00 9.50 10.00 10.50 11.00 11.50 12.00 12.50 13.00 13.50 > 14.00

INTEREST RATE (PERCENT)

(b2)



range greater than 9.50%, there were respectively 4.2% agreements and 18.0% mortgages. Therefore, interest rates for agreements tended to be heavily distributed in the high rate area.

Although there was considerable variation between the four sampled areas, especially amongst the three North Shore communities with relatively small sample sizes the total sample of agreements tended to have on the average a term which was 3.75 years shorter than that applicable for mortgages (see Table Thirteen). The three North Shore areas, in effect, had no substantial differences in the length of the term allowed. The term for agreements was for Vancouver, on the average, 4.07 years shorter than that for mortgages.

By area there was no uniformity in the standard deviations. However, for the total sample, which was dominated by the City of Vancouver's sample, the standard deviation of the mean for the agreements was less than that for the mortgages by 2.57 years (see Table Fourteen).

The shorter length of term that was usually found in agreements relative to mortgages was clearly illustrated in Graph F. The modal term for agreements was only in the 12.5 to 17.5 years range while for mortgages it was in the 22.5 to 27.5 years range. Similarly, the medians were spread in approximately the same pattern. Although both curves were strongly concentrated around the means they were very different with respect to the over-all distribution of their terms. Nineteen and a half percent of all the agreements had a term of less than 12.5 years while only 5.01% of all the mortgages fell into this category. Similarly, 7.04% of all agreements had a term of greater than 27.5 years and only 1.2% of all mortgages had terms in this range. Therefore, an agreement was likely to have greater variation in its

(64)

MORTGAGES

AGREEMENTS

NO. OF TRANSACTIONS

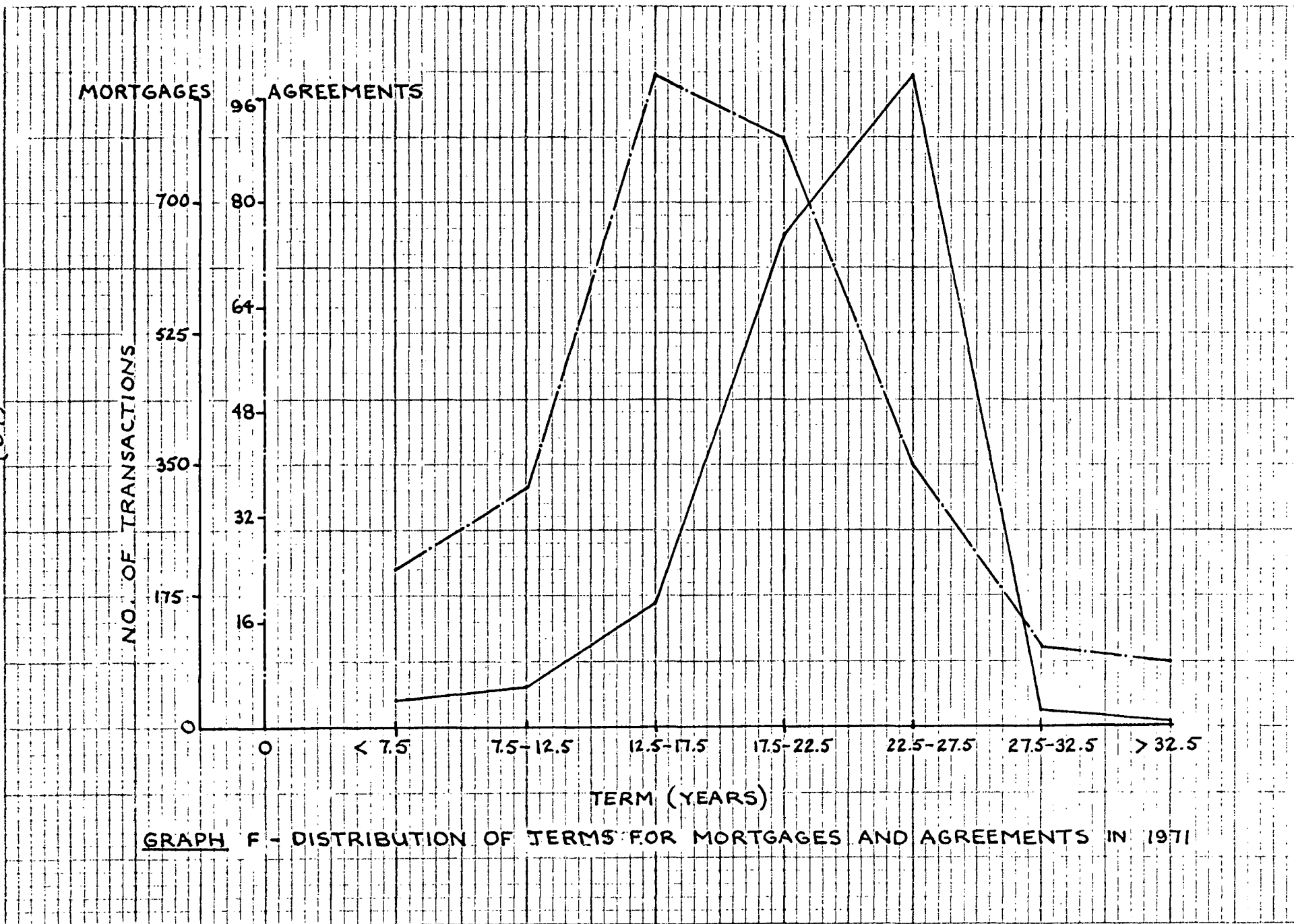
700
525
350
175
0

96
80
64
48
32
16
0

< 7.5 7.5-12.5 12.5-17.5 17.5-22.5 22.5-27.5 27.5-32.5 > 32.5

TERM (YEARS)

GRAPH F - DISTRIBUTION OF TERMS FOR MORTGAGES AND AGREEMENTS IN 1971



terms as well as a shorter term.

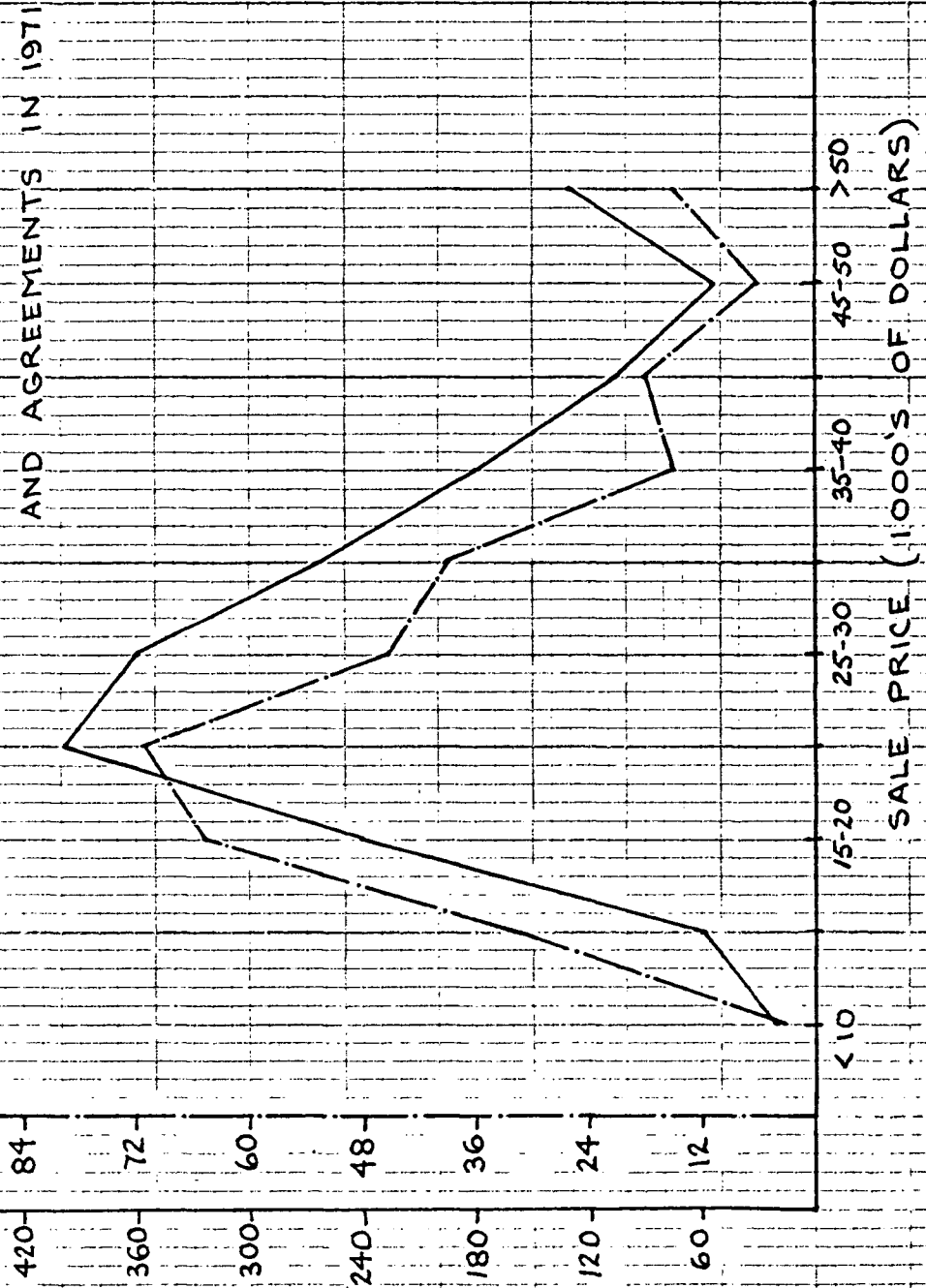
From Table Thirteen it can be seen that there was considerable variation in sale prices by area and by means of finance. West Vancouver naturally had the highest average sale prices. It also had the largest standard deviation of all four sample areas (see Table Fourteen). North Vancouver (District) and the City of Vancouver had very similar average sale prices. However, their standard deviations varied considerably. Including both agreements and mortgages, there was a difference of five to six thousand dollars between the two areas. Considering the tremendous variety of residential property values that were available in the City of Vancouver, it follows that it had the larger standard deviation in comparison to the more homogeneous North Vancouver District. The lowest average sale prices prevailed in the City of Vancouver. The difference in the standard deviation between agreements mortgages in North Vancouver (City) was considerable. The sale prices in transactions involving agreements varied only \$4,460 while for transactions involving mortgages the variation was \$21,258, which is a five-fold difference.

For the total sample, the average sale price for a mortgage exceeded the price for an agreement by 12.6%. On the basis of the range of average sale prices, it seemed that the standard deviations of these average prices for the whole sample varied appropriately.

The distribution of sale prices between agreements and mortgages was very similar (see Graph G). The modes were the same (\$20,000 to \$25,000). Both curves seemed to be sloped very much alike. However, they did have different concentrations of sales especially at the limits. For transactions valued at less than \$15,000, there were 10.9% agreements

MORTGAGES AGREEMENTS

GRAPH G - DISTRIBUTION OF SALE PRICES FOR MORTGAGES
AND AGREEMENTS IN 1971.



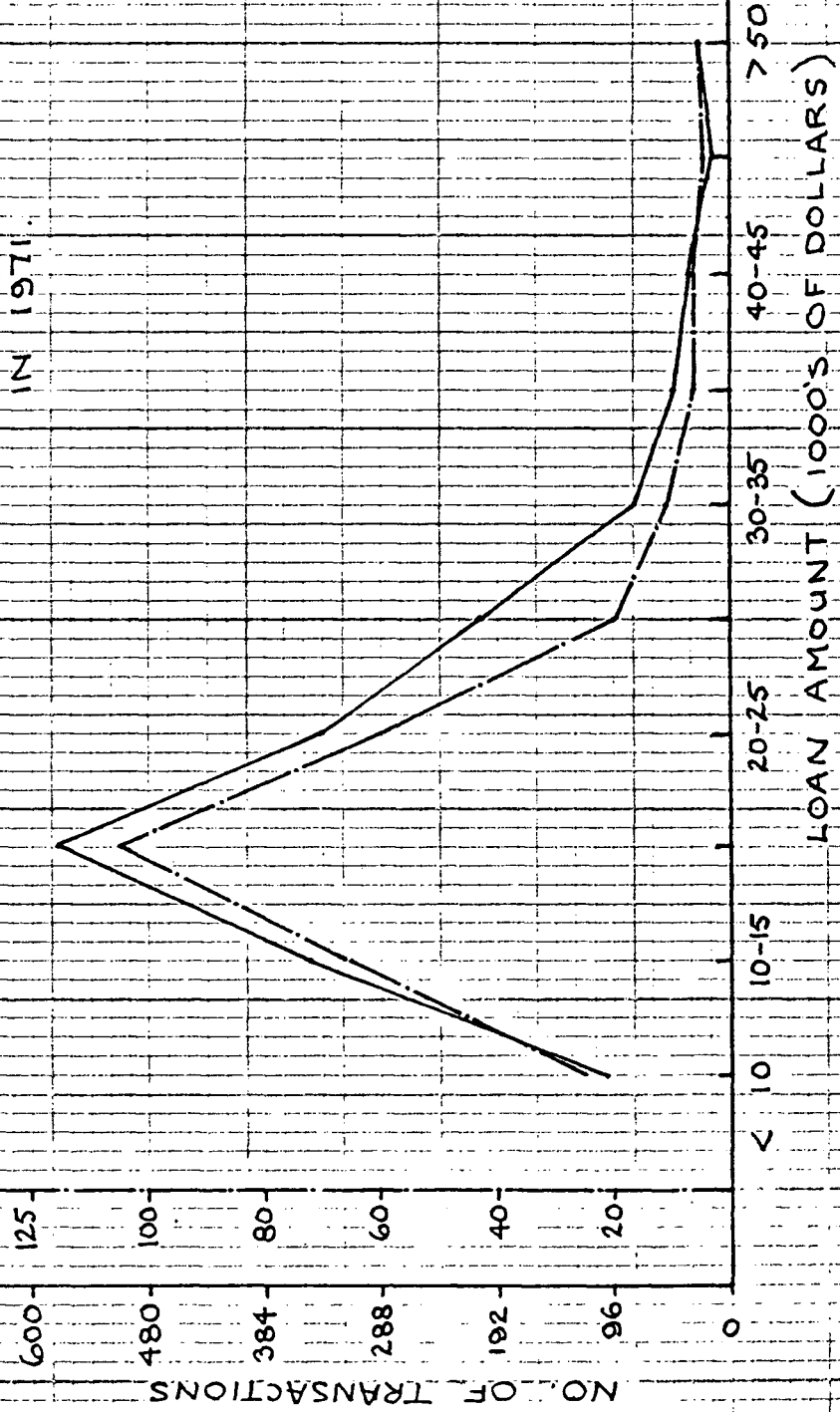
while only 4.14% mortgages. On the other hand, 25.6% of all the mortgages involved transactions valued at greater than \$35,000 while only 18.2% of all agreements were in this range.

The variation in mean loan amounts between mortgages and agreements was quite insignificant. For the total sample, mortgage loan amounts were only 3.9% more than that for agreements (see Table Thirteen). Average mortgage loan amounts were greater for both North Vancouver communities while average agreements loan amounts were greater for West Vancouver and Vancouver. In contrast, the standard deviation was just the opposite to the means. The standard deviation applicable to agreements was \$756 greater than that applicable to mortgages. In other words, the distribution was slightly more concentrated around the mean for mortgages than for agreements.

The similarity in the distributions of both agreements and mortgages was clearly evident on Graph H. The mode and the median were in the same range for both distributions. In the range of loan amounts of greater than \$35,000, there was, in effect, no difference in the distributions. There were 6.02% of all the mortgages and 6.07% of all the agreements in this high range. However, for loan amounts of less than \$15,000, there was a substantial difference. In this range, there were 24.7% of all mortgages and 29.4% of all agreements. Therefore, it could be concluded that, over the whole sample, agreements were less concentrated around the mean than are mortgages. At the lower end especially, agreements tended to be distributed in larger numbers.

There was a significant difference between mortgages and agreements with respect to the size of the periodic monthly payment. For the total sample, the payments were 5.4% greater for agreements than for

MORTGAGES AGREEMENTS
GRAPH H - DISTRIBUTION OF LOAN AMOUNTS FOR
MORTGAGES AND AGREEMENTS
IN 1971



mortgages (see Table Thirteen). Within the four areas, the variation in the average monthly payment was quite considerable. Vancouver, which accounted for the vast majority of the total sample, had an average monthly payment for agreements exceeding that for mortgages by 11.7%. For the Municipality of West Vancouver, the monthly payment for the mortgage exceeded that for the agreement. The difference was only marginal for the District of North Vancouver but for the City of North Vancouver it amounted to 6.4%

Between the four sample areas, there was a tremendous variation in the standard deviation of the means. In Vancouver the agreements exceeded the mortgages by \$48.00, but for all three North Shore areas the standard deviation of the mean monthly payment for mortgages was greater than that for agreements. For the total sample, agreements had a standard deviation which was \$34.00 greater than that for mortgages. With such a wide difference, the distribution for agreements was vastly less concentrated than that for mortgages.

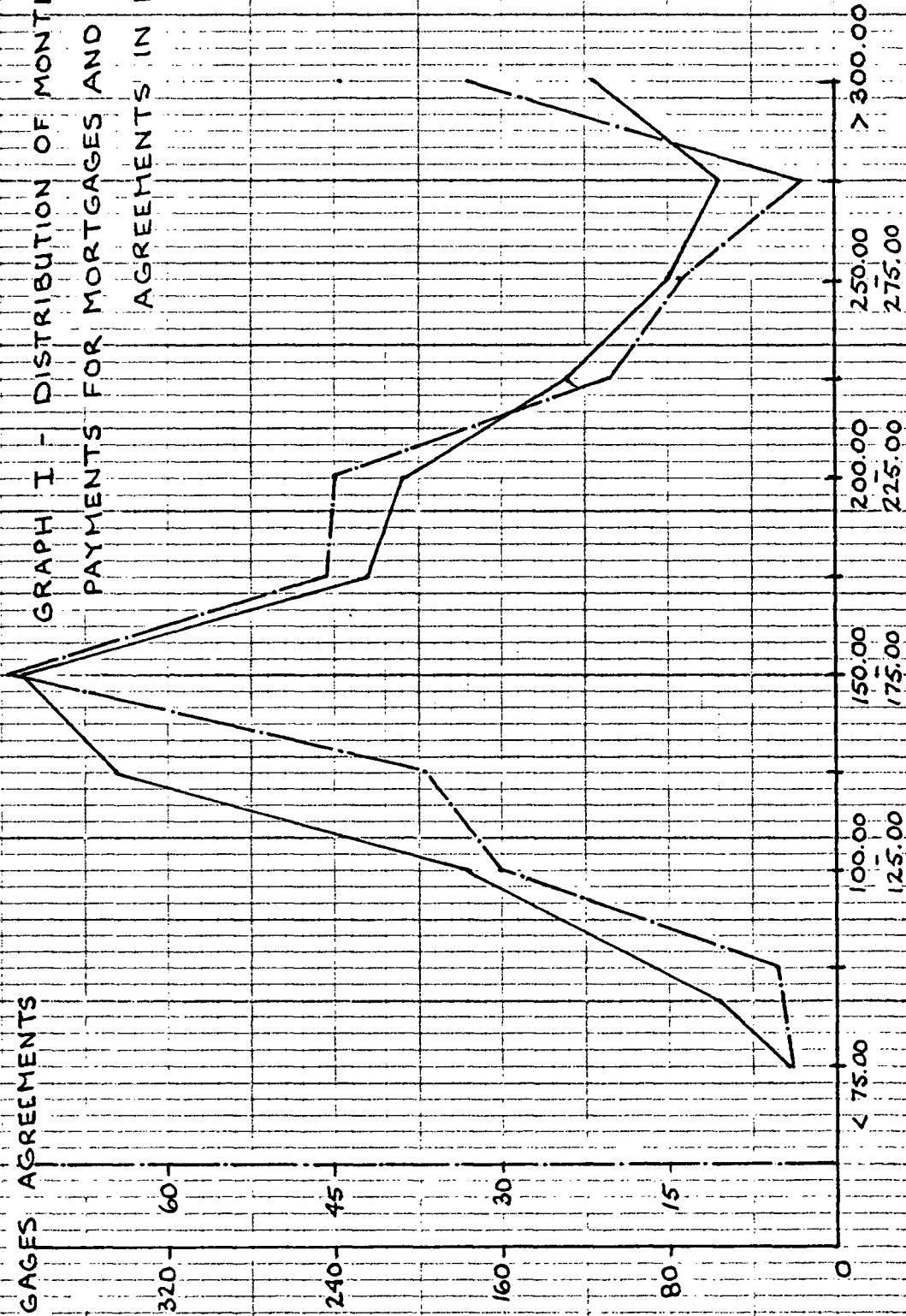
As can be seen on Graph I, the modes for both mortgages and agreements were in exactly the same range. In addition, the medians coincided exactly in that range for both. However, as already pointed out, the distribution for agreements was considerably less concentrated than that for mortgages. At the extremes, both agreements and mortgages were similarly distributed. For a monthly payment of less than \$125.00, 2.9% of all agreements and 4.2% of all mortgages were in this range. Twenty-two and four-tenths percent of all agreements and 21.4% of all mortgages had monthly payments that exceeded \$225.00. The differences in distributions were in the areas that were close to the means. This can be observed very clearly on Graph I. In the range

GRAPH I - DISTRIBUTION OF MONTHLY
PAYMENTS FOR MORTGAGES AND
AGREEMENTS IN 1971

MORTGAGES AGREEMENTS

NO. OF TRANSACTIONS

MONTHLY PAYMENT (DOLLARS)



of \$100.00 to \$175.00 per month, mortgages predominated quite strongly while in the range of \$175.00 to \$225.00 per month, agreements predominated.

The following section will attempt to summarize all the statistics discussed in the previous paragraphs about means, standard deviations, and distributions. In the total sample of agreements and mortgages, the average loan-to-value ratio tended to be higher in property transactions involving agreements than in mortgages. However, the mortgages tended to be much less concentrated around the mean. In addition, agreements were distributed in larger numbers in the range of the higher loan-to-value ratios while more mortgages than agreements had low-value loan-to-value ratios. Average interest rates were lower for agreements (by almost 1.00%) than for mortgages. From the calculated standard deviations, interest rates on agreements tended to spread out more, while for mortgages they tended to be concentrated. In addition, agreements had a larger proportion of low rates and mortgages had a larger proportion of high rates. The length of the term was almost four years shorter for agreements than for mortgages. Once again they tended to be less concentrated amongst the agreements. The average sale price was \$4,000 lower for agreements. Agreements had a higher concentration of sale prices in the low ranges and conversely, mortgages were in relatively large numbers in the high sales price ranges. The average mortgage loan amount was very similar to that of the agreements. Further, their standard deviations and distributions were also very much alike. Only at the lower end was there a significant difference. The agreements were in relatively larger numbers in the lower range than were mortgages. On the whole, the average monthly payment for agreements

tended to be approximately \$10.00 greater in value than for mortgages. The agreements had a much wider spread than did mortgages (the standard deviation was greater by \$33.44). They were also much more heavily spread at the higher ranges while mortgages were distributed in larger numbers at the lower ranges.

By isolating each of the four sample areas some very interesting results were found. With the vast domination of the City of Vancouver's sample (53.6% of all mortgages sampled and 80.1% of all agreements sampled), its individual statistics were extremely significant. As would be expected, the means of the terms for the mortgages and agreements issued in the City of Vancouver all bore a very close relationship to the results for the total sample. The absolute magnitude of the means were marginally different but relatively speaking they were equivalent. The results in total were, however, consistently lower in value than the other three areas and than the total sample. This was probably the effect of the east of Main Street area where incomes and property values tended to be lower.

The City of North Vancouver results were significant in two areas. Compared to the total sample, the houses which were financed with agreements had especially low sales prices. In addition, there was tremendous variation of the standard deviations of the six terms between agreements and mortgages. Only the length of the term had a like deviation. In the other five categories the standard deviation of the mortgage means were at least twice as large as those for the agreements.

Relative to the other three sample areas and to the total sample, the District of North Vancouver had three substantially different statistics. Its loan-to-value ratios for agreements and mortgages were

significantly higher. The average interest rate and average terms for an agreement issued in the District of North Vancouver were both substantially higher than the results for the total sample of agreements.

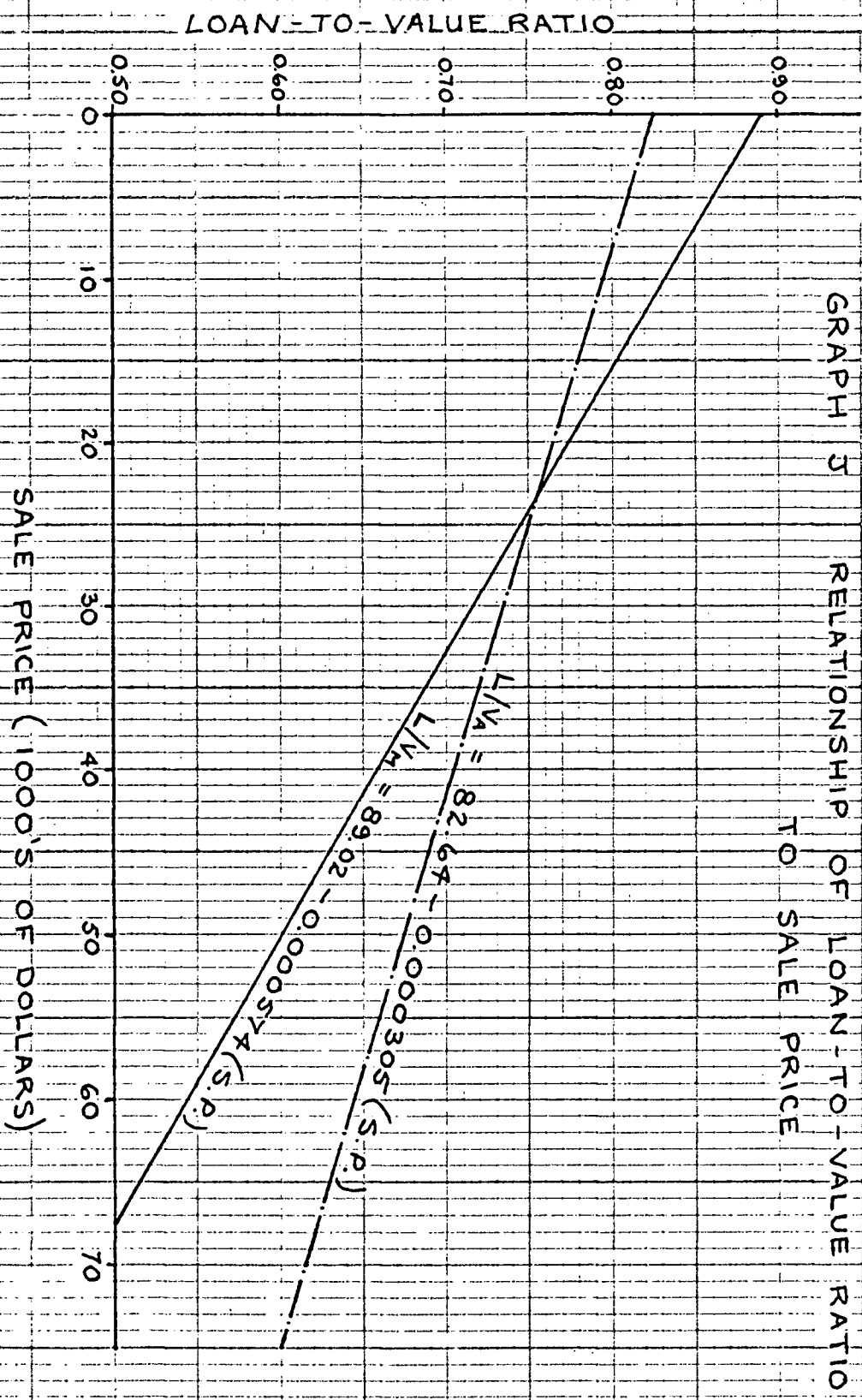
The results for West Vancouver were generally in line with the differences that prevailed in the total sample. The major divergence, of course, centered on the dollar values for the average sales price, the loan amount, and the monthly payment. They all tended to be substantially higher than the other three areas by approximately 25 to 30 percent. The term for agreements was slightly higher than that for mortgages which was the converse of the result for the total sample. Both the interest rate and the loan-to-value ratio followed the results of the total sample.

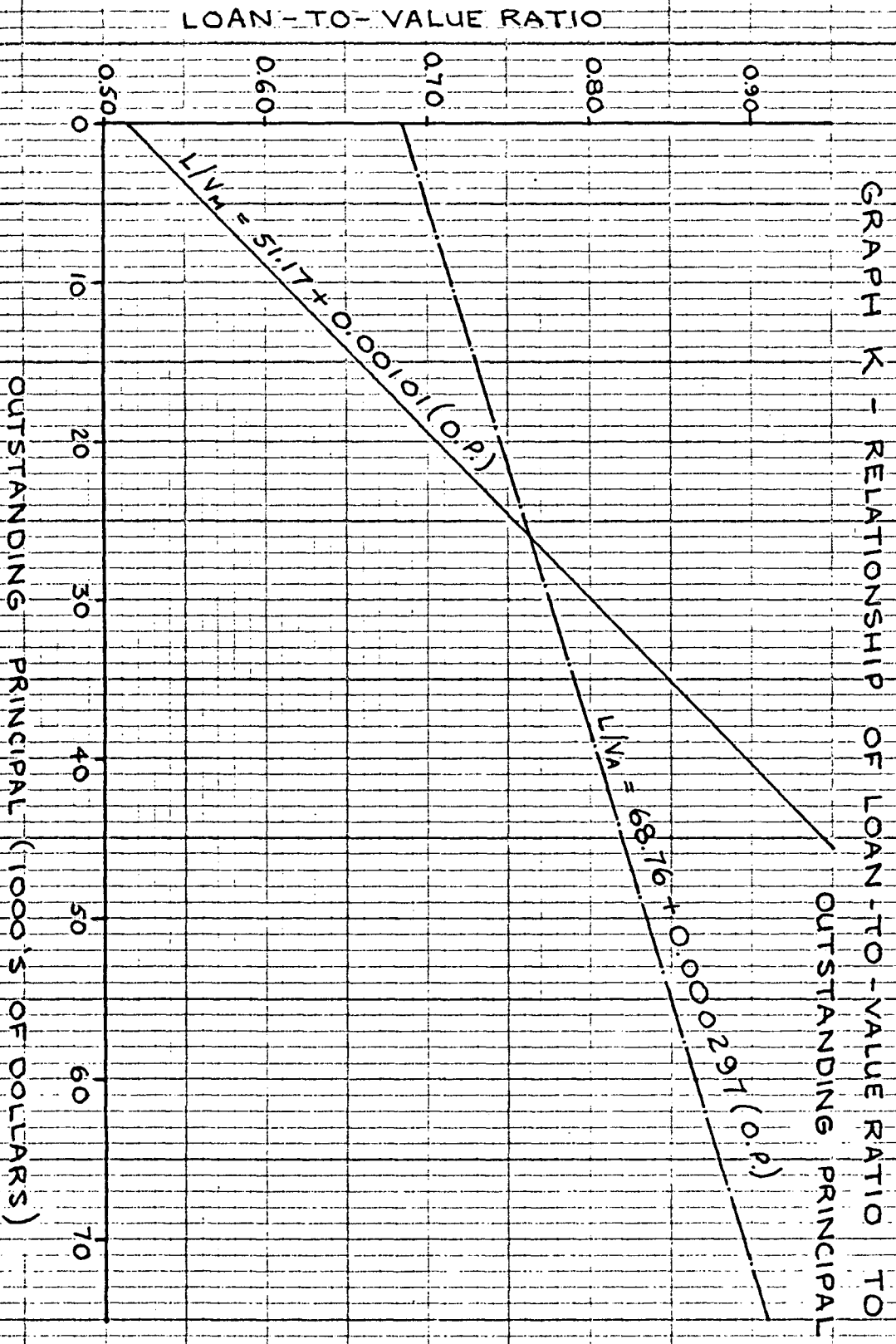
DERIVED REGRESSION EQUATIONS

This section will deal with the regression equations that were calculated for certain perscribed relationships that seemed to be important. The basic idea of this method of analysis is to separate two variables - one is to be assumed the independent variable and the other is to be the dependent one. All the observations for each of the two variables are then regressed with the help of a computer, so that an equation relating the two variables is derived.

In most situations an equation can be computed. But how statistically significant is it? Measures of its statistical significance were also calculated and were included as part of the computer output. It was decided that any relationship which had a probability of less than 0.050, (F Probability Level), that the derived equation was random, was considered to be statistically significant. On this basis, the computed equations for both agreements and mortgages were analyzed.

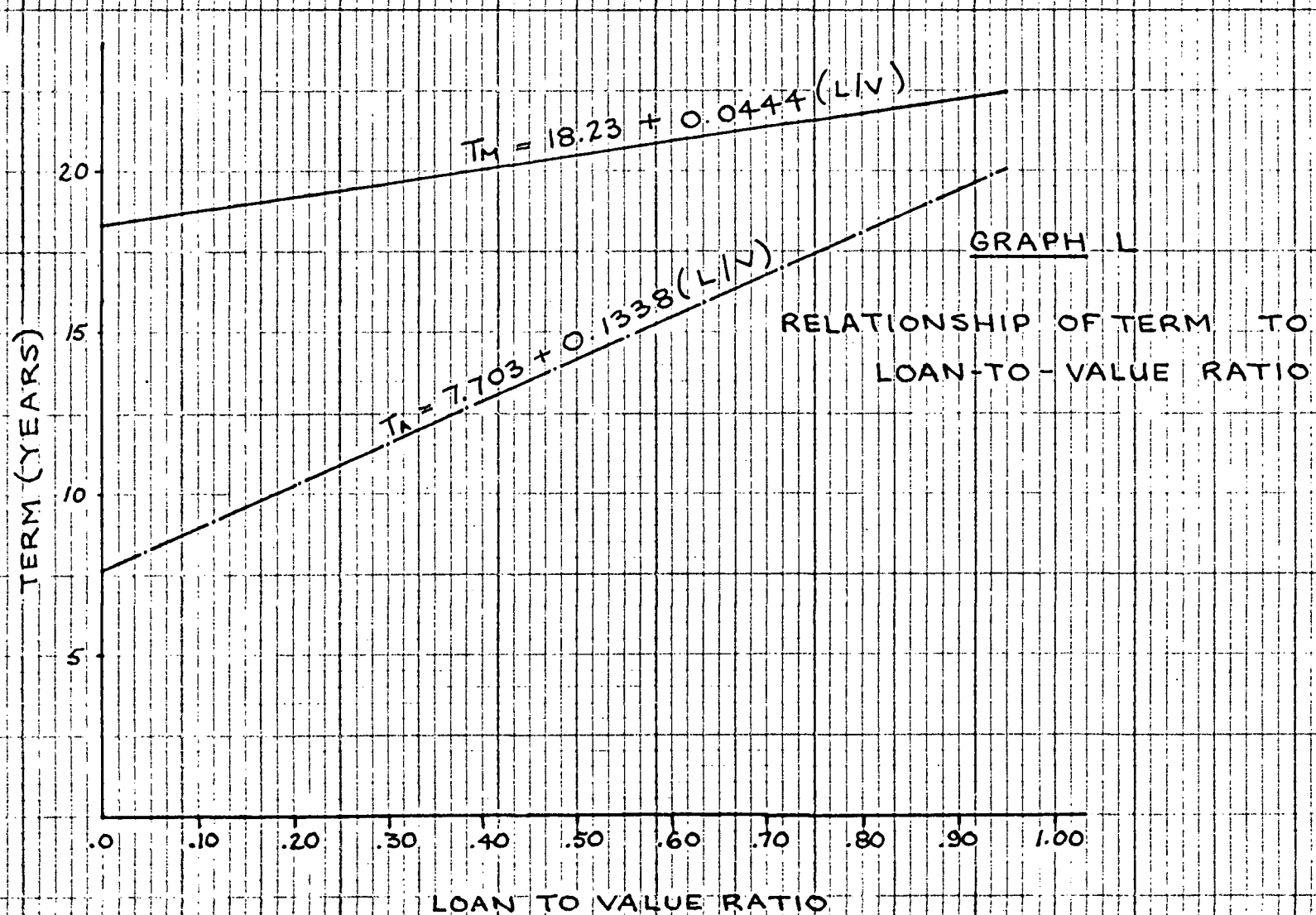
Loan-to-value was equated with the sales price of a property. The relationship for both the agreements and the mortgages were found to be significant on the basis of the FPROB LEVEL. As can be seen on the accompanying graph (Graph J), both relationships are inversely proportional. Both equations were very similar except that the mortgage one had a 55.4% steeper slope than the one for agreements. This meant that as the sales price increased, the loan-to-value ratio was likely to fall faster for mortgages than for agreements. For example, a property valued at \$23,000 would have the same loan-to-value ratio however the transaction was financed, while at a value of \$54,000 one could obtain 66% and 58% financing under an agreement and a mortgage respectively.

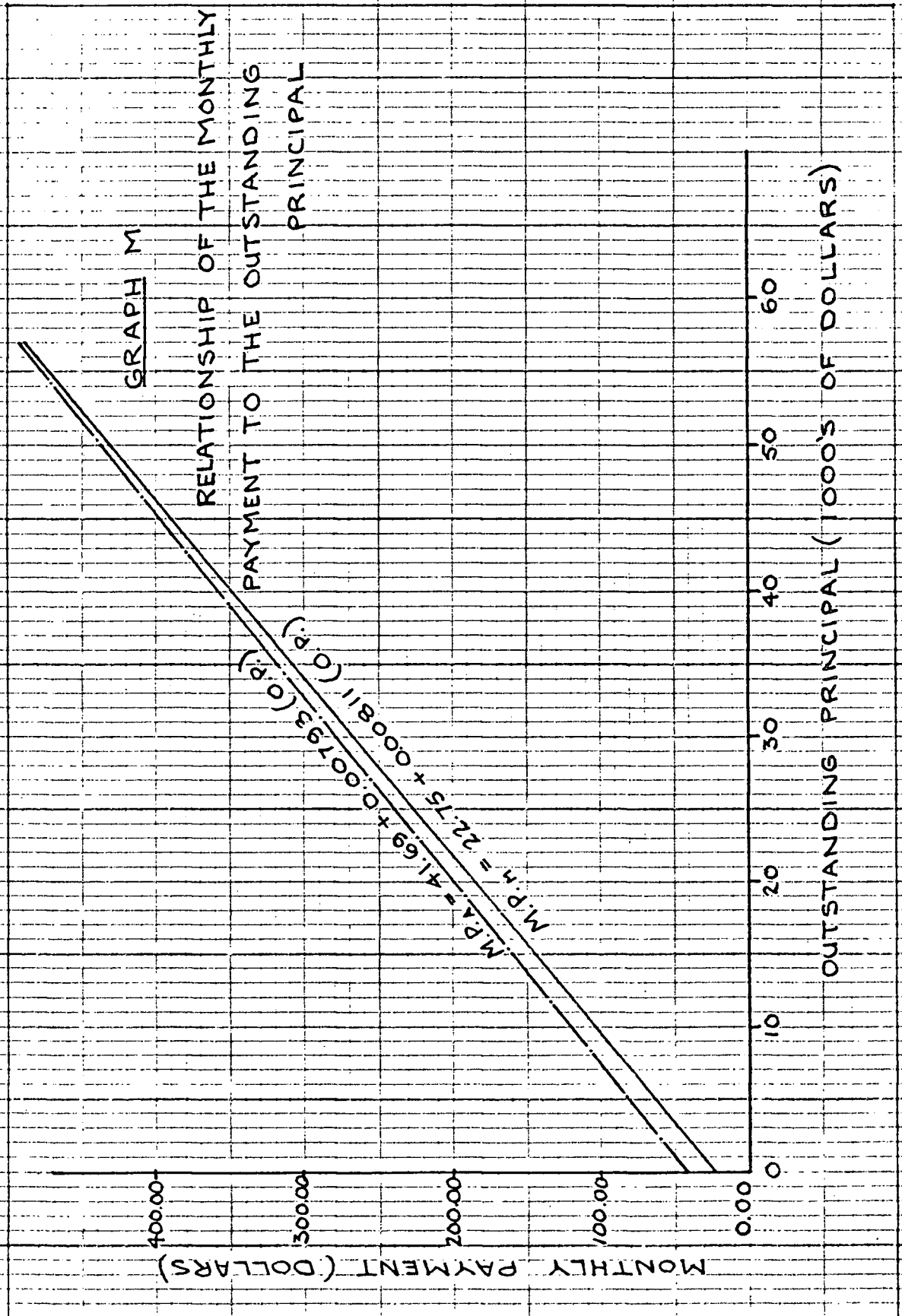




Loan-to-value was regressed with outstanding principal to ascertain if lenders (vendors or mortgagees) tried to reduce their relative risk as the debt increased. The derived equations for agreements and mortgages were both significant. In both situations (see Graph K) the loan-to-value ratio was directly proportional to the outstanding principal. Not only was the steepness of the slope vastly different for agreements and for mortgages by a factor of two but also the derived constants had a very large gap in value. It amounted to a 34.4% difference. Basically, the equations meant that with the same increase in the outstanding principal, the loan-to-value ratio on a mortgage was likely to increase faster than on an agreement. Further, beyond the \$26,000 level, the loan-to-value ratio on a mortgage would exceed that on an agreement. Below this level an agreement was likely to have more financing relative to the amount of equity.

The length of the term of each financing contract was equated to the loan-to-value ratio for that transaction, to ascertain if the amortization period was reduced as the relative risk incurred by the lender increased. The derived equations for agreements and for mortgages were both found to be statistically significant. In both relationships, the dependent variable was directly proportional to the independent one. The mortgage constant (see Graph L) was 124% greater than the one for agreements and the velocity of the slope for agreements was 300% greater than the slope of the graph for mortgages. This meant that as the loan-to-value ratio increased on any particular financing transaction, the term would be higher in an absolute sense for the mortgage but the rate at which the term would increase as the ratio climbed would be greater for agreements.





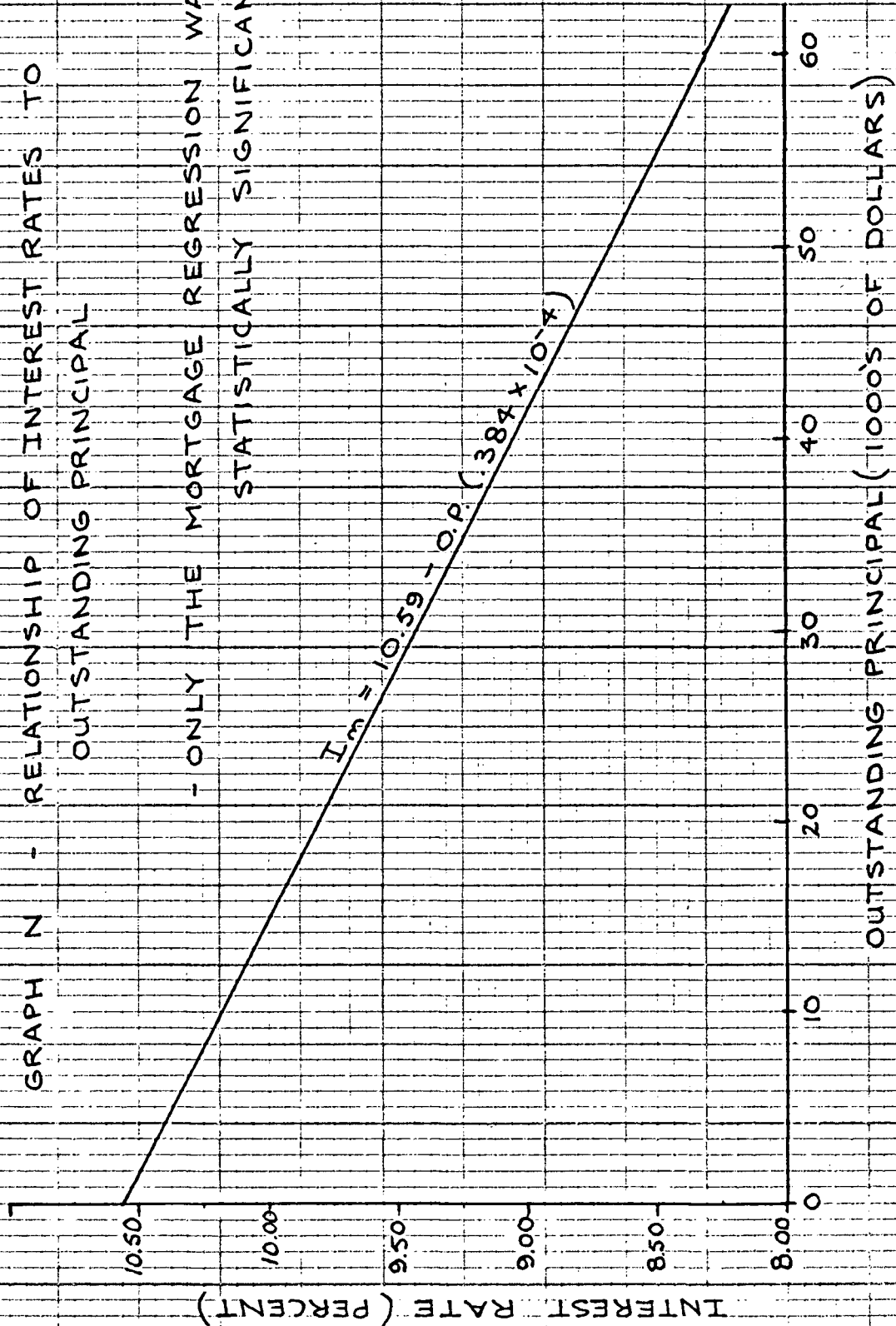
The monthly payment owing on an agreement or on a mortgage was regressed with the outstanding principal on the financial transaction. For both means of finance the derived equations were significant. Both equations were very similar. Their slopes were within 2.0% of each other. The constants applicable to each equation varied considerably. The constant for the mortgage equation exceeded by 83.0% the constant for the agreement equation. Basically, both equations state that as the outstanding principal increases, the monthly payments increase relatively. At the \$10,000 level of debt the monthly payment for an agreement was \$120.99 and for a mortgage is \$103.85 while at the \$50,000 level, it was \$438.19 and \$428.25, respectively. From these illustrations the relative rates of the slopes are evident. The rate of increase for mortgage periodic payments was faster than that for agreements.

Interest rates were equated to sales price. The derived equations for agreements and for mortgages were not statistically significant. The F-probabilities were in both cases too large. In other words too many of the observations inputted were randomly related. It can be concluded from this that there was no solid relationship between interest rates and sales prices for either form of finance.

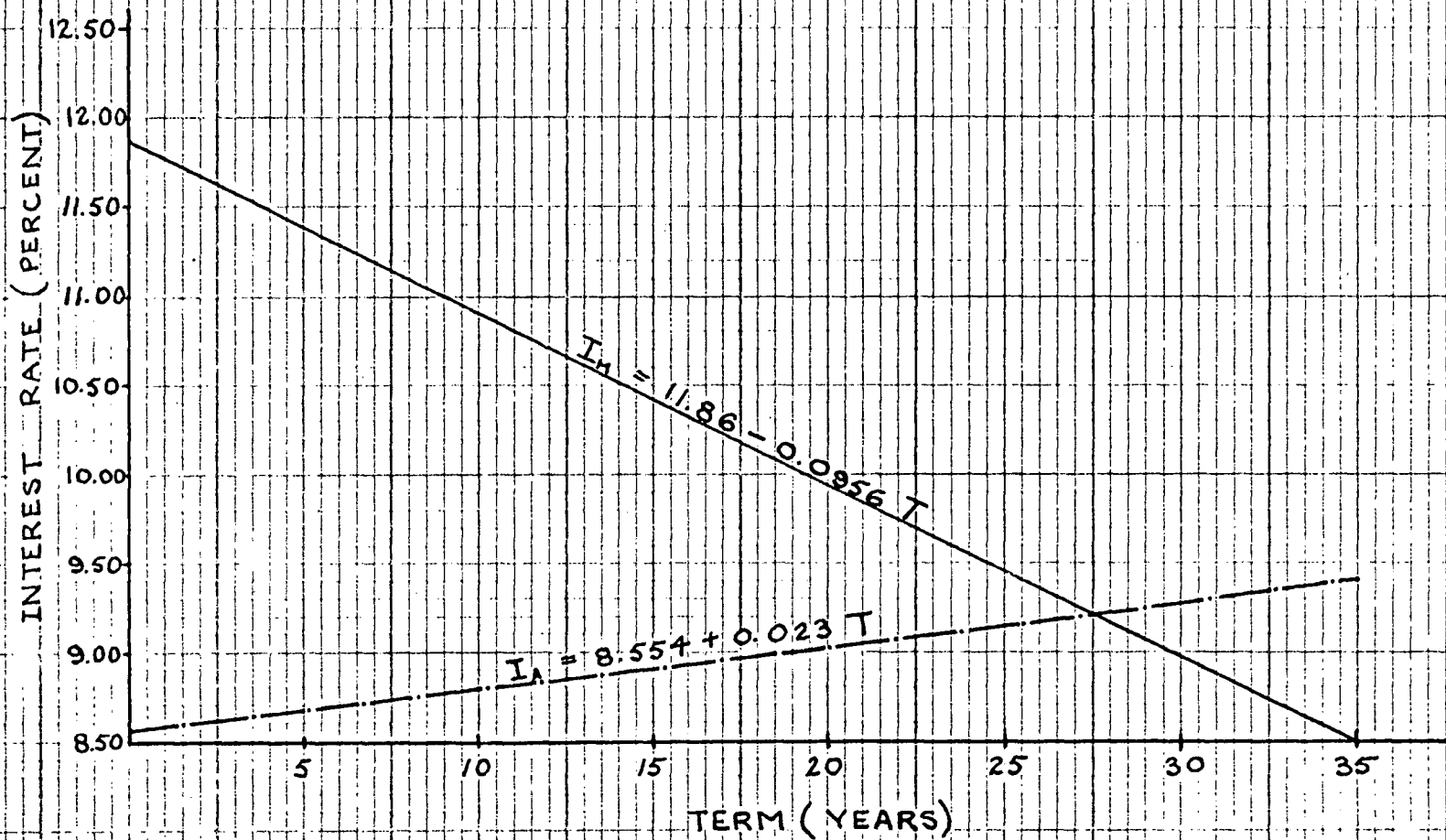
Interest rates were also regressed against the outstanding principal. In this case, only the relationship computed for the mortgages was significant. As can be observed on Graph N, the interest rates on mortgages were inversely proportional to the outstanding principal while for agreements no relationship existed between the two variables. As the outstanding principal on a mortgage increases, the interest rate decreased. However, for an agreement no determining relationship was found connecting these two variables.

GRAPH N - RELATIONSHIP OF INTEREST RATES TO
OUTSTANDING PRINCIPAL

- ONLY THE MORTGAGE REGRESSION WAS
STATISTICALLY SIGNIFICANT.



GRAPH O - RELATIONSHIP OF INTEREST RATES TO THE
LENGTH OF THE TERM



When interest rates were related to the length of the term the two resulting equations were basically opposite to each other. For the agreements interest rates were directly proportional to the term, however, for the mortgages, interest rates varied inversely to the term. This is graphically displayed on Graph O. Basically, this equation stated that as the term increases, the interest rate on a mortgage would decrease and on an agreement increase. In fact, for a term of ten years, the interest rate for a mortgage would be 10.904% and for an agreement would be 8.784% while for a term of 35 years, it would be 8.50% and 9.35%, respectively.

The relationship of interest rates to loan-to-value ratios was computed. No statistically significant regression equation could be derived for agreements. A significant inverse relationship between interest rates and loan-to-value ratios was derived for mortgages. It was found that as the loan-to-value ratio increased on a mortgage, the interest rate applicable decreased. For agreements, no statistically measurable effect on interest rates could be found with an increase in the ratio.

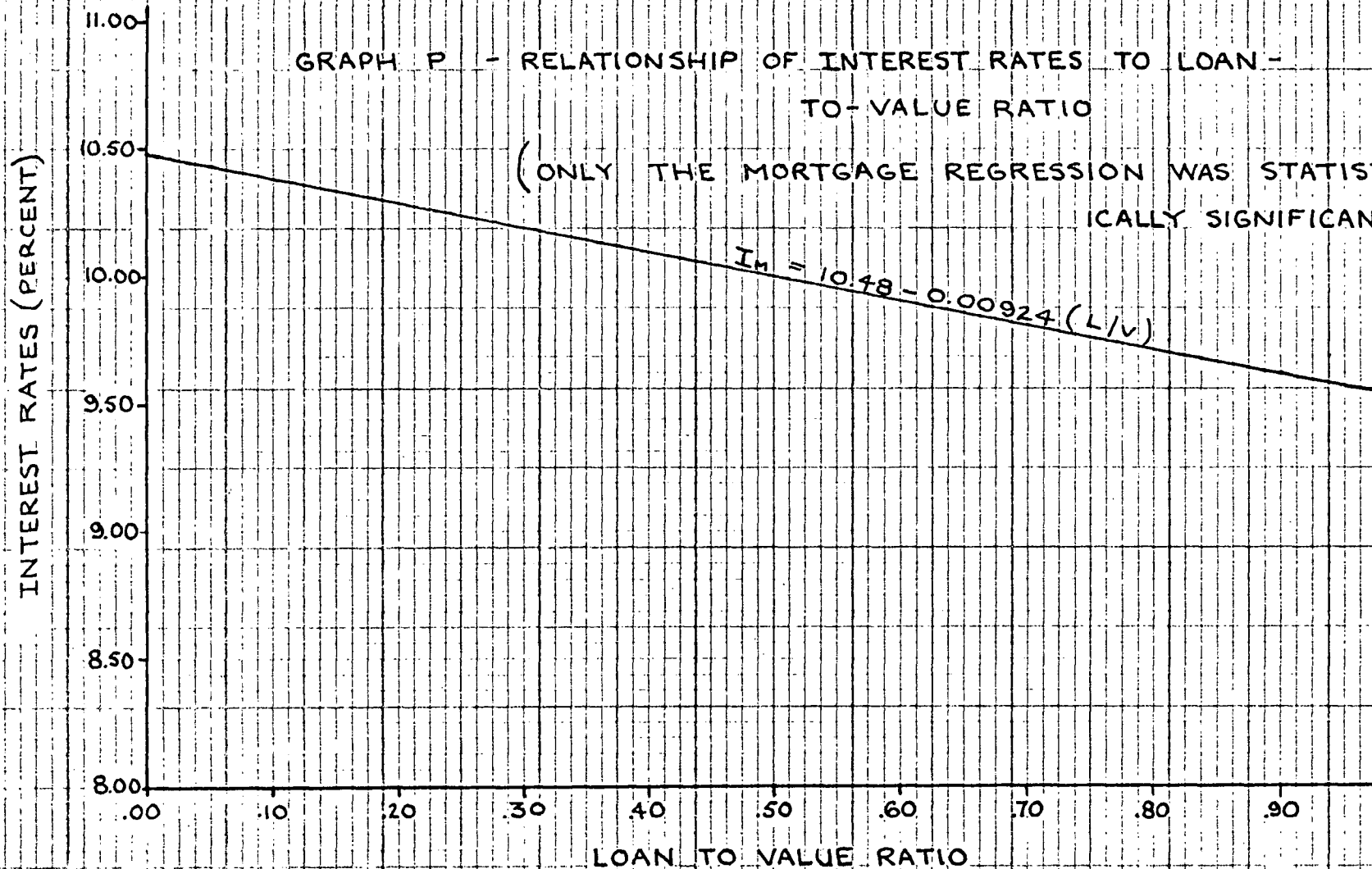
In addition, interest rates were regressed against monthly payments, terms, and loan-to-value ratios. Only the relationship for mortgages proved to be significant in total. The equation computed was as follows:

$$I = 12.123 - 0.74 \times 10^{-3} (M.P.) - 0.084 (T) - 0.00514 (I/V)$$

This is basically an inverse relationship - as the monthly payments rise the terms increase and loan-to-values increase, the interest rates on the mortgage decrease. All three independent variables, in combination, had no effect on the interest rate of the agreement.

GRAPH P - RELATIONSHIP OF INTEREST RATES TO LOAN -
TO-VALUE RATIO

(ONLY THE MORTGAGE REGRESSION WAS STATIST-
ICALLY SIGNIFICANT)



Finally, a ratio of the monthly payment and the outstanding principal was computed. This ratio was then regressed as the independent variable against the interest rates which were the dependent variables. Statistically, only the equation drawn for the mortgages was significant. No relationship was found which could be statistically derived and substantiated. The equation computed for the mortgages was as follows:

$$I = 9.172 + 66.33 (M.P./O.P.)$$

This basically states that as either the monthly payment increased or the outstanding principal decreased, the applicable interest rate would rise.

To understand the relationships inter-connecting the terms of agreements and mortgages, each set of regression equations could not be considered in isolation. The statistical significance of an equation or lack of it and the relative variables of the equations all were important in understanding both means of residential finance.

The first conclusion to be drawn is that sales price is an insignificant variable in determining the applicable interest rate on either an agreement or mortgage. If the interest rate was partially a measure of risk, the size of sales price could be directly translated into a factor; these probably dwell on the person borrowing - his character and financial collateral.

Continuing this discussion of interest rates, it is important to note that only one regression employing interest rates as a dependent variable was significant for agreements. All the others proved to be statistically insignificant. Yet, in every equation (exception already discussed) derived for mortgages involving interest rates, the relationship was significant. Every regression involving outstanding principal, loan-to-value ratio and monthly payment was statistically insignificant

for agreements and significant for mortgages. Interest rates in business usually are a measure of risk indirectly. The greater the risk, the higher the interest rate and vica versa for a lower risk. On this basis, it follows that the regression equations derived for the mortgages were significant. The mortgagees which, in the vast majority of cases, were financial institutions such as credit unions, banks, mortgage companies, or life insurance companies are profit making ventures. Their livelihood depends on the interest payment received for each mortgage. Therefore, risk as created by the terms, payments, the loan-to-value ratio, the term, etc., is measured in terms of an interest rate charged. On the other hand, the vendor in a sale transaction involving an agreement is relatively unsophisticated in measuring the risk applicable to the sale and the financial terms and is probably not consciously profit maximizing. He merely wants to facilitate the sale in as short a time as possible, hence, the lack of statistical significance in those regression equations involving interest rates.

However, there is one set of equations which were significant for agreements and mortgages and both involve interest rates as dependent variables. This is the relationship of the interest rate to the length of the term. It is very interesting because the equation applicable to mortgages varied inversely, while the equation for agreements implied that if the term was lengthened then a larger proportion of each monthly payment had to be allocated to the interest charge. This was assuming that the schedule and size of monthly payments was set. Since the outstanding principal was constant once agreed upon, then given a longer time to amortize the debt, a larger proportion of each periodic payment had to be allocated to the interest payment. On the other hand,

the equation for mortgages implied that if the term was lengthened then the interest rates charged decreased. The only reason that could be deduced by the author was that the mortgagees had very long-term commitments, so that, they preferred to have their income generating projects on the same time-horizon. This would be the case for trust companies and life insurance companies. The other reason stemmed from the recent introduction of the five-year call provision which permits a mortgagee not to be concerned about the future beyond five years because the interest rates can be adjusted to future market conditions.

It is interesting to note that the relationship of the term to the loan-to-value ratio for both agreements and mortgages was very similar. The terms were directly proportional to the ratio. This, of course, followed because as the debt increased it would seem very plausible that the term would increase. In addition, the inverse relationship of interest rates to loan-to-value ratio stated that the greater the relative amount of debt, the smaller was the interest rate. If both these two relationships just described in this paragraph were combined for mortgages, the relationship of interest rate to term as previously analyzed would result. However, this same process could not be undertaken for agreements because interest rates were directly proportional to the term, (rather than inversely proportional) and because the relationship of interest rates to loan-to-value ratio was statistically insignificant.

Amongst all the regressions computed for agreements and mortgages there was only one equation which could really be considered to be similar. As can be seen on Graph M, the relationship of the monthly payment to the outstanding principal for both means of finance were almost equivalent. The implications for both equations were also the

same as a larger outstanding debt required greater periodic (monthly) payments to amortize the principal. Of course, variations in the term and the interest rate would also affect this relationship.

By comparing the relationship of loan-to-value to outstanding principal and to sales price, an interesting analysis would result. Basically, this combined set of relationships stated that as the sales price increased, the loan-to-value and similarly, the outstanding principal decreased. This implied that buyers of more expensive homes tended to have larger relative equity investments in their homes. This probably resulted from their high personal incomes. It also arose because of the effect of National Housing Act legislation which insures mortgages up to a value of \$25,000. It permits a loan-to-value of 95.0% up to this value while the private market only allows up to a maximum of 75.0%. Normally, the ratio is even lower - around 70.0%. With these institutional restrictions built into the system, a mortgagee would be reluctant to acquire higher absolute risks by permitting large outstanding principals. Coincidentally, the mortgage curve on Graph K tops out at a level of \$50,000 of debt at 100% loan-to-value. Similarly, as the sale price increased (see Graph J), the loan-to-value ratio dropped much more quickly for mortgages than for agreements. On both Graphs J and K, it can be seen that it was possible under an agreement to obtain more debt absolutely and relatively than it was possible with a mortgage.

CHAPTER SUMMARY

To understand why agreements for sale are used as a source of financing residential purchases, the institutional mortgage market must be understood. For reasons previously discussed, residential buyers initially approach mortgagees to borrow funds. The mortgagees, especially the financial institutions, have quite strict criteria which must be met before the loan is approved. These criteria deal with the buyer's personal income, collateral, type and security of employment quality and location of the house, and many others. If a buyer is refused a mortgage, then to finance the purchase he has little choice but to persuade the vendor to give an agreement.

There were, of course, many reasons for refusing to give a mortgage, however, probably the most common one was that the buyer cannot come up with an adequate down-payment. This, as verified by Table Thirteen and Graphs J and K, seemed to be one of the main reasons for using an agreement. It was statistically proven by the results as already set out. Agreements had on the average higher loan-to-value ratios and relatively larger outstanding principals given lower average sales prices. Further, as both sales prices and outstanding principals increased (see Graphs J and K), the loan-to-value ratios for agreements were likely to be higher than those for mortgages. In addition, the mean length of the term was shorter for agreements. It seemed that a purchaser could amortize his debt faster, so that, his equity investment in the property increased faster with an agreement than with a mortgage.

At the time of purchase, the financial restrictions on the buyer are relatively fixed. The sales price is already agreed to, his down-payment is fixed by his level of savings at that time, and his personal

income determines what he can afford to pay as monthly payments toward the interest charge and principal amortization. Given Graph M, it seemed that within certain bounds the affordable monthly payment did vary. Buyers were willing to adjust upwards the monthly payment by as much as \$18.00 per month. The only terms not established were the interest rates and the length of the term.

On the basis of the regression equations derived, it seemed that the term is agreed to first and then, the interest rate merely falls into place logically. All the regressions relating the interest rate on the agreements to the sales price, outstanding principal, monthly payment, and loan-to-value ratio were statistically insignificant. Conversely, they were, on the whole, significant for the mortgages. But the mortgage market is known to be very interest elastic. Furthermore, interest rates on agreements varied directly with the term. Similarly, the term varied proportionately to the loan-to-value ratio (statistically insignificant). On the whole, the interest rate on an agreement was sensitive to only the term; all the other relationships were insignificant. Therefore, the logical conclusion is that the term is agreed to first and then the interest rate logically follows. A mortgagee uses the interest rate as a direct measure of the risk inherent in loaning the funds to the borrower. The risk may be measured in terms of the level of the outstanding principal (see Graph N) of the size of the loan-to-value ratio (see Graph P). As already noted, a vendor does not measure the risk in terms of the interest rate. Rather the interest rate is the logical result given all the agreed to terms. On this basis, the mortgagee would seem to be more financially sophisticated because he is not excluding the risks inherent in the loan from the decision-making process.

A point that should be noted about the shorter average amortization periods that are permitted for agreements, is that when this statistic is combined with the higher mean monthly payments and the lower average interest rates for agreements, the purchaser in absolute dollar magnitude probably paid an equivalent amount in interest payments to that which he would have paid under a mortgage contract.

CHAPTER VII - SUMMARY AND CONCLUSIONSLimitations and Weaknesses:

Before concluding this study, the limitations and weaknesses should be summarized. First, from personal experience and observations, the Teela Market Surveys could not be considered a totally reliable source of information, especially since it was basically an intermediary source. Its accuracy, unfortunately, could be quantified. To collect the actual data it would be necessary to go directly to the primary source which in this case would be the Land Registry records.

The first hypothesis dealing with the state of the economy and its effect of the usage and terms charged for agreements could have feasibly only included a two year time horizon. To arrive at a much more accurate relationship measuring the affect of the state of the economy, a time horizon of 4 to 5 years would have been appropriate. It should have spanned at least one complete economic or business cycle. This would have permitted a more intensive analysis of the effect of the general state of the economy on agreements and mortgages (their relative usage and terms charged).

As pointed out in an earlier chapter, the socio-economic index used in this project was firstly, very one sided and secondly, very gross. It was only a measure of mean personal income per census tract. The other factors such as personal character, social class, culture, et cetera were not computed in this index. Furthermore, it was only a mean measure. In other words, large physical areas were averaged. Any variations beyond this mean figure were ignored. It seems entirely feasible that there were families within census tracts that did not fit the average category.

The mean statistic should also be questioned between mortgages

and agreements. Any variations outside the mean were ignored. To alleviate this problem, the author endeavoured to bring into the discussion and analysis other statistical measures, such as medians, modes, distributions, and standard deviation.

Finally, it should be pointed out that in judging the statistical significance of the regression equations, many measures were ignored. Probably, the most important one was the R-square computation. Only the F-probability was used because the derived equations were not going to be used to project into the future. They were merely utilized as another means of comparing agreements and mortgages. The absolute accuracy of the fit of each derived regression equations was unimportant. The significant point was the relative accuracy; that is, was the equation derived for agreements statistically more significant than it was for mortgages? On such a basis, the two sources of residential finance could have been compared.

SUMMARY OF RESULTS

Hypothesis: That during a period of economic recession, agreements for sale are more prevalent than during a period of expansion in the economy.

Unfortunately, in Chapter Four it was not possible to derive a direct relationship between the level of the economy and the usage of agreements. In other words, an equation explaining the connection between the two could not be derived quantitatively. To circumvent this deficiency, a relationship was derived by inference. This means that the changes in the economy and the changes that the usage of agreements separately underwent were subjectively related, so that the interconnection could be drawn. On this basis it was concluded that the level of the economy on a national as well as on a local scale did affect the usage of agreements.

In 1970 when the economy was in the midst of a recession, the ratio of the number of agreements given to the total number of residential sales transacted was substantially higher than in 1971 when the economy was well into the recovery stage. In 1970 there were relatively more agreements given than in 1971.

Similarly, the terms charged in 1970 were harsher than those in 1971. This result applied to agreements and mortgages. For both agreements and mortgages, interest rates and the length of the terms tended to be lower while loan-to-value ratios tended to be higher in 1971 than in 1970.

During a time of expansion in the economy, the relative usage of agreements tended to decrease and the terms charge would have been relaxed, so that more money could be borrowed and at a lower interest rate.

Conversely, during a time of economic recession, relatively more agreement would be issued but at much stiffer terms requiring larger down-payments and higher interest rates, and shorter terms.

Hypothesis: That a person with a low socio-economic index is more likely to finance his residential purchase with an agreement than is a person with a medium or high socio-economic index and that the low index purchaser is likely to obtain more favourable terms with an agreement than with a mortgage.

Once again in Chapter Five the relationship between the socio-economic index of the buyer and the usage of agreements could only be derived by inference, that is, an equation relating the two variables could not be computed. However, it was possible to categorize the number of agreements and their average terms by socio-economic level.

Persons and families with a low socio-economic index were more likely to use agreements than were persons with a medium or high index rating. In addition, the low index group tended to have easier terms than the medium or high socio-economic group, that is, the length of the terms were longer, the interest rates were higher, and the loan-to-value ratios tended to be higher.

Hypothesis: That the terms on agreements for sale show a greater variation than those on mortgages and that the variation is a direct reflection of quality differences with respect to the borrower and his financial collateral.

This paper in Chapter Six undertook a comparison of the terms charged for agreements and for mortgages. It was found that agreements had larger loan-to-value ratios than did mortgages while mortgages had higher interest rates and longer terms than agreements. In dollar amounts, mortgages tended to have higher sales prices while agreements

had greater outstanding principals and monthly payments.

Naturally, there was some variation amongst the four study areas: Vancouver, City of North Vancouver, District Municipality of North Vancouver, and West Vancouver. The over all results were mostly representative of Vancouver because it dominated the total sample of agreements and mortgages used in this project. On the North Shore, the City of North Vancouver had the largest relative usage of agreements. Significantly, in West Vancouver and the District Municipality of North Vancouver, amongst those transactions involving outstanding principals of greater than \$50,000, agreements tended to increase in usage relative to the sample studied. A similar result existed for these kinds of transactions for the City of Vancouver and therefore, for the total sample.

CONCLUSIONS

The underlying purpose of this project had a two fold nature. First, it was to discover the number of agreements for sale being used to finance residential purposes and the terms being charged. The results of the research for this part of the project have been described in the previous section of this chapter. The second reason for this research into agreements was to understand why they are used and how the terms are derived. The conclusions to the second purpose of this paper are partly deduced from this previous section and also from certain regression equations computed from the research data.

In normal circumstances, a vendor would demand that the sale of his home be financed with a lump-sum payment covering the entire sale price. This means that the buyer had to either entirely use his own equity to finance the purchase or arrange a mortgage from an institution. The many situations that may force the use of an agreement for sale in a residential purchase were described in Chapter Two. This section will only deal with those studied in the research data and computations.

There were individuals who could only obtain mortgage financing in times of economic recovery or when the economy was healthy. They were seen as marginal risks who met the requirements of institutional mortgagees only when credit was not restricted. Therefore, the marginal risks in times of economic recession were forced to use agreements for sale to finance their residential purchase. This was borne out by the research data where in 1970 when a recession did exist larger numbers of agreements were given than in 1971 when the economy was in the process of recovery.

On the same basis, people and families with a low socio-economic status had a tougher time to meet the criteria of a mortgage because

these institutions would translate the socio-economic index into a measure of risk. Therefore, the lower the socio-economic index, the greater was the perceived risk in the eyes of the institutional mortgage companies. These people, hence, had a tougher time to obtain mortgage financing and many more were perceived as marginal credit risks. As a result, it followed that a larger proportion of people with a low socio-economic index had to resort to agreements to finance their residential purchases.

The institutions that issued mortgage money determined the terms charged in light of the sale price and the perceived risk. Accordingly, they set the interest rate charged, the down-payment owed and the monthly amounts paid. If the mortgagor did not meet these obligations, the mortgage company did not give him any credit. It seemed that most refusals arose because the purchaser's equity or personal annual income was too low. As a matter of fact, the loan-to-value ratios were substantially higher than those for mortgages and the length of the terms were much shorter for agreements than for mortgages.

From this research, the interest rate on an agreement seemed to be the last term arrived at by the vendor and the purchaser. The equity, the sales price, and the monthly payment were established almost before the transaction was completed leaving only the term and the interest rate to be set. In every case except one, the regression equations computed for agreements with the interest rate as the dependent variable proved to be statistically insignificant. Conversely, for mortgages they proved to be significant. In addition, the one equation that was significant had the term as the dependent variable. Therefore, the interest rate on an agreement seemed to be the resulting factor after all the other terms were determined.

Institutional mortgages used the interest rate on a mortgage as a measure of the risk inherent in the transaction. It seemed very realistic that in a credit transaction, the risk should have been measurable and should have affected the other terms charged. However, in a property sale involving an agreement for sale, the interest rate was the last term established. In other words, the element of risk in the sale and credit arrangement was ignored in an agreement.

IMPLICATIONS FOR FURTHER STUDY

There are two obvious areas for further research and study. Both are suggested by the section in this chapter discussing "Limitations and Weaknesses". First, research material should be collected for a longer time horizon.

In this project, the effect of the state of the economy was measured only for two years, 1970 and 1971. The better way would be to delineate a complete business cycle in the late 1960's and early 1970's. Then, for the time period of this business cycle the necessary research data would be collected. This would facilitate a better understanding of the effect of business conditions on residential finance. In other words, it would be possible to see the effect of any phase of the economy. On this basis, a much more accurate analysis could be undertaken.

This project has endeavoured to explain statistically why people use agreements for sale to finance their residential purchases. A much better and more accurate method would be to either send questionnaires, or have personal interviews with people who are using or have used agreements. These persons or families would be directly asked why they used agreements. To complete the entire process, the vendors and institutional mortgagees would also have to be questioned either by mail or personally to discover their reasons for permitting the use of an agreement and for refusing to give a mortgage, respectively. In addition, this method would alleviate the problem connected with the use of the socio-economic index as a measure of risk. The purchasers could be asked directly what their incomes were and what savings they had amassed. And the mortgagees could be asked the same questions about their mortgagors. This direct method is a much better way to understand why agreements are used to finance residential purchases than the one used in this study (Statistical Inference).

IMPLICATIONS FOR RESIDENTIAL FINANCE

As a result of the analysis and study undertaken in this project, it seems to me, as the author of this report, that the use of agreements for sale to finance residential purchases should be encouraged. Using this means of finance, it is possible to obtain cheaper credit (lower interest rates) and to borrow more money (higher loan-to-value ratios) than by giving a mortgage.

By increasing the use of agreements, some of the pressure is taken off the institutional mortgagees to provide funds to the residential market. The entire market mechanism is diversified. There is much less reliance on a few mortgagees.

A very feasible way to encourage the use of agreements is for an insurance scheme to be provided for vendors who have accepted agreements in lieu of a lump-sum purchase payment via a mortgage company. This would be very similar to the one that exists today under the Federal Government sponsored National Housing Act insured mortgages. This insurance would reduce the vendor's risk in case of default and hopefully, would encourage the use of agreements to finance residential purchases.

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APPENDIX

<u>RELATIONSHIP</u>	<u>F(PROBABILITY)</u>	
	<u>AGREEMENTS</u> <u>FOR</u> <u>SALE</u>	<u>MORTGAGES</u>
1. Interest Rate vs. Sales Price	- 0.9287	0.3377
2. Interest Rate vs. Loan Amount	- 0.9160	0.00
3. Interest Rate vs. Term	- 0.4578×10^{-1}	0.00
4. Interest Rate vs. Loan-to-Value	- 0.9172	0.00
5. Loan-to-Value vs. Sales Price	- 0.6586×10^{-5}	0.00
6. Loan-to-Value vs. Loan Amount	- 0.1516×10^{-2}	0.00
7. Term vs. Loan-to-Value	- 0.1222×10^{-5}	0.00
8. Monthly Payment vs. Loan Amount	- 0.00	0.00
9. Interest Rate vs. <u>Monthly Payment</u> Loan Amount	- 0.9186	0.00
10. Agreement for Sale:		
Interest Rate vs. Monthly Payment, Term, Loan-to-Value		
F-Prob. Level -	0.6522,	0.0458, 0.5308
10A. Mortgage:		
Interest Rate vs. Monthly Payment, Term, Loan-to-Value		
F-Prob. Level -	0.0173,	0.00, 0.00