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Alternatives for Statistical Systems for the
International Trade in Services in Finland:
Settlements or Surveys and Registers

CONFIDENTIAL

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1. Need for improvements of the service trade statistics

Data on foreign trade in services are needed both as monthly timely preliminaries of the aggregates as well as less frequent detailed structural statistics. The ECB requires the member states to report the monthly key items of the BoP Statistics in six weeks. (See: EMI: Statistical Requirements for the Stage Three of Monetary Union, July 1996). In these, only the aggregated totals of the service exports and imports are reported. For a considerable share of total trade in services, no data are available in six weeks. Eurostat must be supplied with detailed quarterly and annual service trade statistics within three months. (See: Eurostat: Balance of Payments Vade mecum, March 1997). The classification is so detailed that in some items no data are available.

On the European level, the statistical competences in the BoP Statistics are being defined so that Eurostat is responsible for the compilation and methodological development of the current account, excluding investment income and the ECB for the financial account, including investment income. In general, the statistical competence of the ECB is limited to monetary statistics.

In Finland, the statistics of the foreign trade in services is compiled jointly by the Bank of Finland and Statistics Finland. Various sources are used; Statistics Finland has diverse basic statistics and enterprise registers and the Bank of Finland employs settlement data. The collection of the latter, however, has proved to be inefficient and costly, both for the compiling Central Bank and for reporting institutions, mainly banks. In the future the problems involved may even worsen because it is evident that the common currency in Europe makes it difficult to identify what is a 'foreign' payment.

The paper discusses the growing disadvantages of collecting settlements for statistical information in the Balance of Payments in Finland where the survey approach in the financial account has been most successful. The resource use in maintaining the settlement system and the quality of the data received are discussed.

The paper describes the volumes of settlements collected and the enterprise and country distributions of the service trade. The financial account census survey populations from 1993 and 1994 are studied as a reference in order to facilitate the comparison between alternative collection systems.

2. Finnish data collection system for the Balance of Payments Statistics

The legal background for the BoP Statistics lay in the Foreign Exchange Act in very general terms for years. From 1.1.1998, the compilation of the BoP Statistics is based on the Act on the Bank of Finland. It states that residents are obliged to provide the Bank of Finland with following information on their foreign transactions in accordance with the Bank's instructions: payments to and from non-residents, claims on and liabilities to non-residents and transactions which change or may change the claims and liabilities.

The Finnish BoP Statistics employs various information sources because the system consists of parts built over different periods. The newest and the most appropriate part of the data collection is the survey system for the flows, stocks and valuation items of the financial account and for the investment income. The system was instituted in 1991 to replace the data provided by the exchange controls. The survey system has proved to yield timely and accurate information.

An essential part of the data collection system has been the monitoring of the foreign payments exercised for many decades. The banks are obliged to provide the Central Bank with information on each payment effected by them for their own account or on behalf of their customers. The residents having payment accounts abroad are obliged to report directly to the central bank. The data collection is of a census-type.

The monitoring of foreign payments is a standard practise to collect information for the BoP Statistics on the European continent. The United Kingdom and Ireland do not collect payments. The Finnish system was until the end of 1997 of the closed type where the daily positions and transactions on the accounts of the banks and of their correspondents (nostro and loro accounts) were reported. As from 1.1.1998 the system has been opened and the positions are no longer collected. The closed system obliged the banks to report a vast number of irrelevant transactions in view to the BoP. Moreover, the globalisation of banks and enterprises has multiplied the amount of payments and has made the use of the system more problematic compared to the period when the system was built.

The current Finnish settlement system stems from the early 1980's in order to monitor the effectivity of the exchange controls. It was especially meant for the period when the banks were obliged to verify that the foreign transaction fulfilled the conditions of the exchange controls.

Later this purpose disappeared and the system was modified to provide statistical information only. However, only data on services, income, transfers, direct investments and trade credits was received through this system because financial capital flows were verified in the Central Bank until the demise of the exchange controls in 1990.

With financial account surveys, the settlement system has served as a means to target the survey populations and as a device for comparisons and quality controls. During recent years the use of the settlement system has decreased because new and better sources have been found in services and trade credits and the application of the accruals principle has increasingly replaced the cash principle in the statistics.

3. The information content, concepts and volume of the settlement data

The information content of the settlement data consists mainly of the information banks need for conveying the payment. In addition, the settlements are classified according to the purpose-of-payment-classification which follows the IMF standard components. The settlements are reported on a daily basis.

The following data are attached to each payment: amount, currency, the organisation number or personal identification of the domestic party, purpose-of-payment, country of residence of the foreign party and the value date. The organisation number includes the information on the functional class of the industrial activity. The settlements are converted to the domestic currency using the exchange rates prevailing at the end of the previous month. Below the FIM 50 000 threshold reporting is simplified.

The coding is usually done by the enterprises making payments through telecommunication links to the banks. First the firms must furnish the commercial bank with the necessary information for the payment settlement and then provide the relevant information for the Central Bank. Technically, the banks cannot effect the payment without central bank information. The data received in this manner on outgoing payments are of a much better quality than the data on incoming payments coded by banks.

The volume of payment transactions is large. In a year, (here the data are from the period 11.96-10.97) the number of classified customer payments amounts to one million. In value terms, this means a flow of 1 000 billion FIM. In addition, the number of separate small payments (below 50 000 FIM) is some four million, even though they could be reported in lump sums. The flow generated by small payments is only 100 billion FIM. The number of purely bank transactions is 230 000, with value as high as 13 500 billion FIM. The major part of this sum, some 90 per cent, consists of short term deposits and loans between banks.

Other BoP items of banks constitute a payment flow of 2 000 billion FIM a year. The number of technical transactions excluded from the BoP was some 1.8 million with value rising to 40 000 billion FIM.

These flows are very large compared to annual flows reported in the BoP Statistics. The current account receipts and expenditure total 510 billion FIM a year (1997). The gross flows of the financial account according to the BoP concepts are not known because only monthly net changes are collected and published.

Notwithstanding the reporting instructions, the country of the counterpart in the settlement data most often represents the country of the bank of the counterpart, not the country of residence of the counterpart as required in the BoP Statistics. Thus the country data are dominated by the countries with major settlement centres like the United Kingdom, Denmark and Belgium.

4. The international trade in services in the Finnish BoP and the payment information on services

The exports of services account for some five per cent and imports for some six per cent of GDP in Finland. The exports of services from Finland in the BoP Statistics (5. Manual, commodities fob-fob) were 33 billion FIM (14 per cent of current account receipts) in 1996 and service imports 40 billion FIM (19 per cent of current expenditure). The breakdown to the subitems of the services account (1996) appears below:

subitem	Receipts	Expenditure
per cent of current account receipts or expenditure		
Transport	4	4
Travel	3	5
Other Services	7	10

The other sources than settlements provided information to transport and insurance items, ie, both to receipts and expenditure of some 10 billion FIM. When the Euro banknotes are issued the information on travel must also be collected from other sources. Only the remaining other services, some 15 billion FIM in receipts and 20 billion FIM in expenditure, could be compiled employing settlements.

The amount of service settlements in the period 11.96 - 10.97 was 150 000 or about 3.5 per cent of all 'real' settlements reported. In value terms the services accounted only for slightly above 0.5 per cent of the value of all payments.

The current code list used in the settlement reporting is a simplified version of the IMF standard components. Finland is able meet with the data requirement of Eurostat and the OECD but the additional items required by 1999 cannot be produced. The 100 million ECU rule would help considerably in this respect.

5. The enterprise distributions in the service trade

Below, the enterprise distributions and the size of the enterprise populations of various service trade categories in 1996 are discussed. This information is essential to a survey maker. The stability of populations is also of importance and should be taken in consideration. The target populations of the financial account surveys have changed only slightly in the course of years. The service items included in the study are: 'goods transport'; 'passenger traffic'; 'communications'; 'planning and contracting pertaining to construction projects'; 'other planning and implementation'; 'commissions, agent's fees etc'; 'advertising, marketing, films and TV-programmes'; 'processing and contract manufacture'; 'repairs'; 'overhead expences of subsidiaries, associates and branches'; 'patents, licences, royalties and franchises'; 'wages and salaries'; 'insurance premiums and indemnities'; 'leasing'; 'private transfers'; 'general government transfers'. In addition, services and transfers are considered aggregated.

Below, the cumulative sums of the payments in each service item by enterprise up to 90 per cent of the total of the respective item are presented in annexes 2 and 3, as well as the log frequency distributions of the service trade by enterprise. Similar data on stocks of financial items are attached for comparison. The stock data are from 1993 and 1994 when the last census surveys were conducted.

The enterprise distributions of the financial stock data are known a priori to be different from the distributions of the service flows, but both data should be the basis for the eventual surveys. It is obviously easier to conduct a stock survey than one on volatile flows.

In most service items the number of active residents to a few hundred while items such as 'other planning and implementation', 'commissions and agent's fees', 'wages and salaries' and naturally 'private transfers' contain about one thousand or more residents. To reach the coverage of 90 per cent, about one fourth of the residents active in this foreign trade business should be consulted in many categories. Totally, services include data on 6 200 residents in exports and 3 500 in imports.

A coverage of 90 per cent of the total value in service exports is reached with 9 per cent of the number of enterprises, and in service imports with 17 per cent. In transfers, total receipts include data on 3 500 residents and total expenditure almost 5 000 residents. To reach the coverage of 90 per cent in receipts, half of the population and in expenditure a quarter of the population are needed. The above data are included in the tables and charts in the annexes 2 and 3.

In the financial items the enterprise populations are clearly smaller (an extreme case are the bonds issued by the enterprise sector where only 13 enterprises are involved). The share of enterprises needed to cover 90 per cent of the value of the stock varies between 10 per cent and 30 per cent in various items. The cumulative distributions do not reveal the differences between the enterprise distributions of financial items and service items. Make note that the financial sector is not included in the surveys above. The financial sector has a specific census survey on foreign assets and liabilities consisting of some 30 respondents. In the future, the foreign items of the MFI sector must be equal in the Banking Statistics and in the Balance of Payments.

The differences between services and financial stocks are revealed by the frequency distributions (ln) by enterprise. The financial item distributions are nicely bell-shaped, but in service flows the frequency distributions are like hyperbola with a large number of small enterprises. No major differences exist between various services. The descriptive statistics of the data with logarithmic transformation are presented in the annex 1.

The coefficient of variation which is the standard deviation in relation to the mean helps in the comparison of utterly different populations or samples. It must be analysed together with skewness and kurtosis as well as with the size and the median of the population. However, only one or a few large observations in a sample consisting mainly of small observations can raise the coefficient of variation, ie, it thus is sensitive to the extreme observations of the sample notwithstanding the general form of the distribution.

6. The geographical breakdown of the service trade

The reason for the use of the settlement data is the Eurostat requirements of the geographical breakdown of the international trade in services and in the direct investments. In the customer payments the country of the counterpart is the UK in almost 40 per cent of all payments, Denmark in ten and Belgium in four per cent. As Finland's major trading partner (12-15 per cent) in commodities, Germany has a share of six per cent in customer payments, while the share of Sweden is some ten per cent.

When the purely bank transactions are taken into account the share of the UK and Sweden together exceeds 50 per cent. This can be explained by the importance of London as a financial centre and the recent establishment of Swedish banks in Finland. Without additional quality controls and other data sources as a reference, the geographical data on the settlements have only minimal value.

The geographical breakdowns of the service trade reported to Eurostat are based on various sources. The geographical data of transport and insurance are collected by Statistics Finland. The respective data on other services are a combination of settlement data and estimates based on these and other information. According to the 1996 statistics, 60 per cent service exports go to the EU area. The largest single countries are Sweden 22 %, the USA 13 %, the UK 12% and Germany 9 %. The overall breakdown of service imports is the same as in exports, ie, the EU accounts for 60 per cent. The largest single countries are the UK 17 %, Sweden and the USA, both 15 % and Germany 9 %. The next countries in terms of both exports and imports are Denmark and France with much smaller shares than the countries above, however.

7. The quality of settlements data and quality controls

The quality controls of the settlement data are effective only in those items which directly serve as source for the Balance of Payments Statistics. Currently this applies to direct investment share capital and to some services. It should be noticed, however, that the initial quality of the data is weak, and other sources have to be consulted first in order to raise its standard. Where the monthly financial data are concerned, the more usual case is that the correct data are in the survey, while payment flows are less reliable. This phenomenon has gained ground in course of the 90's when the survey data has been available. The quality of the survey data must be checked and confirmed against other reference data like official balance sheet statements.

Banks and enterprises do not place much emphasis on the coding of payments, and those codes are used which surely pass the technical control in the Central Bank. When the codings are controlled one cannot escape the feeling that it is rather a random process in the banks and enterprises than a rational function. The technical no-balance-payments-codes have been favoured by reporters for some inconceivable reason. Earlier the commodity exports were also a favourite item to code service receipts.

Much of the relevant information are lost in this huge sea of low quality data. It has been discovered that even the levels of data recorded in the various of service codes are systematically diminishing even though the cyclical and competitive situation of the Finnish service sector suggests totally something else.

The behaviour of various time series reveals quality problems of the data. Enterprises and banks have changed their coding habits so that time series include erratic jumps. The reporting and quality control practises also lead to technical variation to original time series which complicates compilation work. The leap from original data to statistics is often long. Examples of the settlement based service trade time series are attached in the annex 4.

The resources used to control the quality of settlements have been decreasing gradually but still involve some four man-years. In the future it will continue to fall. The main use of the settlements as a method to target the populations of the various surveys has not been efficient either. When the samples are checked annually, other reference data than settlements must always be consulted in order to ensure that the samples in use are appropriate.

If the target were to compile the Balance of Payments Statistics employing only settlements, ie, to improve the quality of the data to meet the standards required by public statistics, to convert the concepts to an accruals basis where needed and to collect the stock data using other methods, the number of staff employed to the collection and quality controls of the primary data should be doubled. Compared to neighbouring countries like Sweden, we would then use at least one third more resources. In practice intensified quality controls of settlements in the central bank would mean more contacts and inquiries to banks and banks would then be obliged to cross-check the coding with enterprises. This kind of quality control work would involve duplication and inefficiency, thus adding to heavy reporting burden and the costs for banks.

The willingness of the banks to act as a quality controller of the primary data of the Balance of Payments has decreased sharply during recent years in line with the banking crisis and the subsequent efforts to improve the profitability of the banking sector. The reporting of bank data for statistical and supervision purposes is complicated enough. In the long run it is not acceptable to build the statistical system of the Balance of Payments on the data the banks have on their customers. The globalisation and the mergers of the banks change the systems employed continuously, considerably increasing the costs involved in various reporting systems.

The DP system for the settlement reporting used to be the most complicated and expensive at the Bank of Finland. Currently two programmers are employed almost full time for this purpose. The resources used for the technical maintenance in the compiling department constituting two man-years as well. According to the information given by banks, the resources spent there are even more excessive.

The quality of the Balance of Payments Statistics is based on the continuous monitoring of the major respondents in the various surveys as well as on the comparison of the BoP reports of the banks with their balance sheet statements reported for the Banking Statistics. The aggregate quality control of the time-series of the statistics plays a prominent role as does the monitoring of the developments of the errors and omissions item. The movement of the preliminaries towards final estimates is controlled for. The use of the Balance of Payments data of various levels of aggregation in economic analysis reveals inconsistencies in the statistics.

The economists employed in monitoring activities have limited access to various Balance of Payments data even on the micro level. The EMU era increases the consistency between various monetary statistics because it becomes a rule that the MFI sector is included both in Banking and Balance of Payments Statistics in a harmonised way. The complete harmonisation of the national accounts (SNA93/ESA95) and the BoP Manual works similarly.

8. Development of payment systems in Euro era and BoP reporting

The stepwise introduction of the Euro as a common currency weakens the basis to use foreign payments as primary data for statistics. Both national and Euro area residents may have similar Euro accounts and it will pose great difficulty for banks to identify what should be reported for BoP purposes. Banks can also interpret the legislation literally and refuse to sort out and to report the various transactions of their clients.

The payment systems will change because of the Euro. The old correspondent bank system will compete with the various settlement centres. The TARGET system for large payments has been built up between central banks. Connecting the reporting procedures to various systems always means DP system development.

The use of settlement centres abroad as well as the proliferation of netting centres of the international companies will certainly occur after the introduction of the Euro. The electronic money and network-based payment practices will probably decrease decisively the importance of the banking community in the payment systems. The payments reported by banks would be only a shrinking part of the information received to be supplemented by complicated direct reporting systems. According to the Finnish experience this has been very labour intensive for all parties involved in view of the benefits realised. Recently, the direct reporting of settlements has been simplified and decreased, because cheaper and more efficient sources of information have been available.

9. Surveys and registers as alternatives for settlements in data collection

The Finnish survey system for the financial account of the Balance of Payments Statistics can be characterised partly as a system of short term cyclical surveys (monthly financial account surveys) and partly as a survey system for structural data (annual FDI surveys). The former are a major part of the system also serving as source for financial account structures.

This is because the phenomena and classification of the financial account are such that in all classes the enterprises are similar or even the same, acting on the international financial markets. In general, the samples can be cut off without losing relevant information. Import credit is the only item where target population is markedly larger (the same as in imports) than in the other financial items.

The good workability of the Finnish survey system is based on the fact that the number of international enterprises is very limited. The medians of the bell-shaped frequency distributions are often on the side of larger enterprise tail. Here the cut-off surveys are a low-cost solution for data collection.

The aims of the international trade in services statistics are diverse: we must learn the developments of the aggregate quickly and the structure of the trade must also be revealed. The enterprise structure in services is totally different from that of the foreign finance. The various sub items of services consist of a large number of enterprises different in each item. Even though the big enterprises dominate the cumulative distributions, the number of active small enterprises is always very large.

The sketch of a survey system for services should thus consist of two parts: an indicative 'barometer' survey for monthly aggregates and a well stratified system for structural surveys. For the aggregate survey it must be known how the variation in time in different sub items is structured; if timing and variation is similar a cut-off survey sent to major enterprises might serve as well. The barometer survey must certainly be completed with time-series and other models in order to reach the levels of the structural data and fill in the missing observations.

The IMF-Eurostat-OECD classification (IEO) of services may be estimated in exports employing the NACE-classification of the selling or exporting enterprise. Some of the data may be available in the enterprise register and in the structural enterprise data of Statistics Finland. In imports of services, it is clear that any enterprise might import almost any service included in the classification. The structural surveys will become complicated because the classification is heavily detailed. The quarterly collection of geographical details is clearly beyond reach.

The household sector is also taking part in the international trade in services. However, no inexpensive surveys can be conducted in the household sector. The most important item of households is travel, where Statistics

Finland is introducing border interviews. The cost of these will exceed the total costs of the Bank of Finland in financial account surveys. Valuable information can be derived from the usage of the credit cards because the resident operators can be surveyed. Most other household sector items in the Balance of Payments are so minor that they can be safely estimated.

It seems evident that the disadvantages of maintaining the settlement system for balance of payment clearly exceed the benefits obtained from the system. It may even be so that it is more economical to dismantle the system as soon as possible. The millenium problems of the DP-systems speak for the sudden death of the settlement system. The design of the service trade surveys will not be easy even in Finland, but by relying on a more or less eclectic system, eg collecting the data needed from various existing and new sources, a feasible solution could be arrived at.

It is also well justified that the monthly data for the ECB and the data for Eurostat are based on different systems. In compiling the monthly data, more statistical techniques like time-series and barometer methods can be exploited. To benefit from the various already existing barometer data or to only add a few new variables in the barometer surveys might very well be a cost-effective solution. This kind data are usually early available and no revisions are expected. The barometer data also include the essential components of the statistics: the past, the present and the future.

Descriptive Statistics

Services (debit), 1996

Ln-transformation of enterprise data	N ¹⁾	Mean	Median	St. deviation	Skewness	Kurtosis	Maximum	Minimum	Coefficient of variation
Goods transport	840	-0,40	-0,92	1,90	0,91	0,10	6,26	-2,30	4,75
Passenger traffic	164	-0,99	-1,61	1,61	1,91	5,55	7,54	-2,30	1,63
Communications	240	-1,04	-1,61	1,44	1,65	3,14	5,16	-2,30	1,38
Planning and contracting pertaining to construction projects	713	-0,99	-1,20	1,49	1,35	1,76	5,18	-2,30	1,50
Other planning and project implementation	2487	-0,99	-1,61	1,45	1,22	1,18	5,71	-2,30	1,46
Commissions, agent's fees etc.	2191	-1,00	-1,20	1,42	1,25	1,41	5,69	-2,30	1,42
Advertising, marketing, film and TV-programmes	712	-1,35	-1,61	1,13	1,24	1,09	3,11	-2,30	0,84
Processing and contract manufacture	324	-1,04	-1,61	1,51	1,38	1,52	4,47	-2,30	1,45
Repairs	173	-0,92	-1,61	1,51	1,23	1,31	4,41	-2,30	1,64
Overhead expenses of subsidiaries, associates and branches	246	-0,87	-1,20	1,41	0,91	0,14	3,86	-2,30	1,63
Patents, licences, royalties and franchises	130	-1,06	-1,61	1,60	1,44	1,53	4,23	-2,30	1,50
Wages and salaries	876	-1,87	-2,30	0,79	2,56	8,69	4,16	-2,30	0,42
Insurance premiums and indemnities	164	-0,49	-0,92	1,96	1,04	0,33	5,66	-2,30	3,97
Leasing	144	-1,26	-1,61	1,26	1,30	1,16	3,17	-2,30	1,00
Private transfers	3257	-1,81	-2,30	0,77	2,20	7,03	4,06	-2,30	0,43
General government transfers	362	-0,93	-1,61	1,56	1,22	1,02	5,14	-2,30	1,68

Services (credit), 1996

Ln-transformation of enterprise data	N ¹⁾	Mean	Median	St. deviation	Skewness	Kurtosis	Maximum	Minimum	Coefficient of variation
Goods transport	810	-0,14	-0,69	2,12	0,86	-0,12	6,63	-2,30	14,65
Passenger traffic	160	-0,61	-1,61	2,12	1,29	1,12	6,83	-2,30	3,48
Communications	243	-1,01	-1,61	1,51	1,50	2,64	5,86	-2,30	1,49
Planning and contracting pertaining to construction projects	262	-1,00	-1,61	1,40	1,15	0,80	3,73	-2,30	1,39
Other planning and project implementation	1119	-1,00	-1,61	1,49	1,38	1,65	4,67	-2,30	1,50
Commissions, agent's fees etc.	967	-0,83	-1,20	1,72	1,30	1,19	5,91	-2,30	2,07
Advertising, marketing, film and TV-programmes	670	-1,10	-1,61	1,48	1,31	1,11	4,35	-2,30	1,35
Processing and contract manufacture	76	-0,76	-1,20	1,81	1,19	0,53	4,45	-2,30	2,38
Repairs	195	-1,09	-1,61	1,46	1,39	1,58	4,47	-2,30	1,34
Overhead expenses of subsidiaries, associates and branches	550	-0,59	-0,92	1,66	0,94	0,32	5,54	-2,30	2,79
Patents, licences, royalties and franchises	545	-0,63	-1,20	1,69	0,93	0,21	5,26	-2,30	2,69
Wages and salaries	805	-1,39	-1,61	1,21	1,57	2,56	4,56	-2,30	0,87
Insurance premiums and indemnities	274	-0,73	-1,20	1,81	1,39	1,63	6,12	-2,30	2,49
Leasing	90	-1,23	-1,61	1,40	1,84	3,97	4,61	-2,30	1,14
Private transfers	4552	-1,77	-2,30	0,88	2,48	8,73	4,98	-2,30	0,50
General government transfers	285	-0,93	-1,61	1,66	1,46	2,18	6,70	-2,30	1,79

1) Number of enterprises

Descriptive Statistics

Financial stocks, 1993/1994

Ln-transformation of enterprise data	N ¹⁾	Mean	Median	St. deviation	Skewness	Kurtosis	Maximum	Minimum	Coefficient of variation
Foreign direct investment in Finland (1994)	1048	7,92	7,87	2,36	-0,05	-0,16	14,99	1,10	0,30
Finnish direct investment abroad (1994)	588	8,03	7,93	3,22	0,13	-0,82	15,52	0,69	0,40
Bonds	13	6,39	6,32	1,22	-0,37	0,59	8,22	3,87	0,19
Loans (credit)	148	4,85	4,91	1,78	-0,05	-0,79	8,66	1,03	0,37
Assets	88	2,89	3,21	2,32	-0,39	-0,41	7,37	-2,30	0,80
Liabilities	164	4,37	4,40	2,24	-0,16	-0,38	9,18	-1,20	0,51

1) Number of enterprises

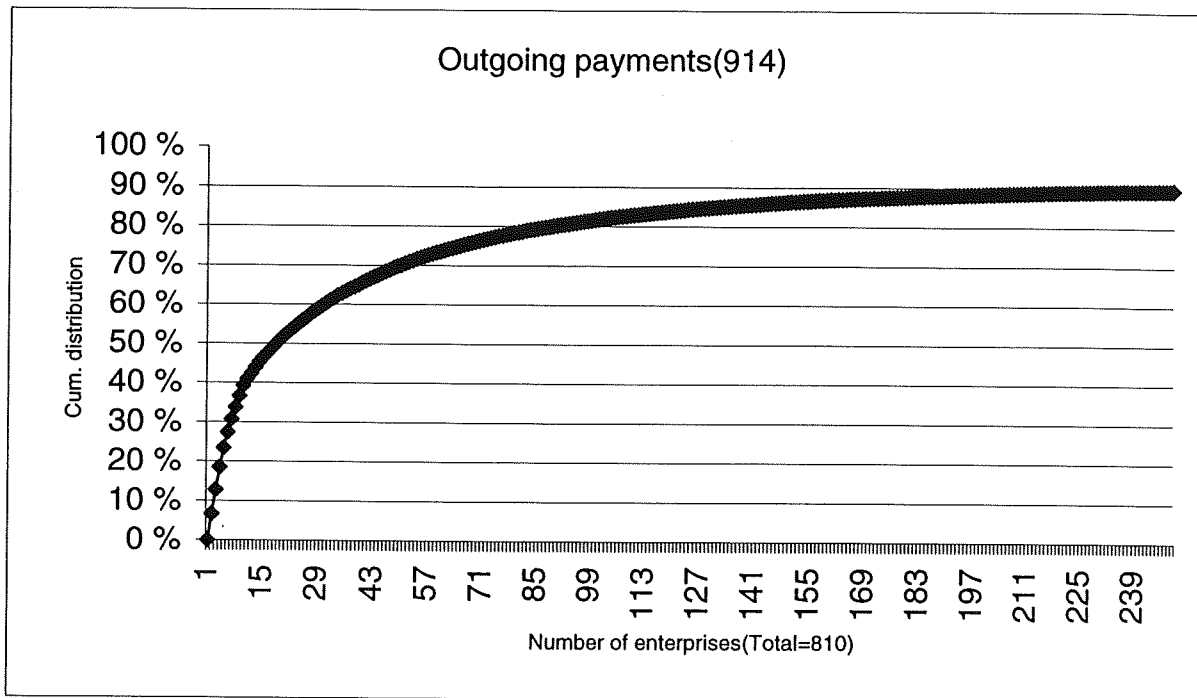
CUMULATIVE DISTRIBUTIONS 1996: SERVICES

	ENTERPRISES			
	RECEIPTS		EXPENDITURE	
	number N	% of total number 90% of the total FIM value	number N	% of total number 90% of the total FIM value
Goods Transport	840	13	810	30
Passenger Traffic	164	4	160	8
Communications	240	14	243	20
Planning and Contracting pertaining to construction projects				
Receipts	713	31		
Expenditure	119	21	262	28
Other Planning and project implementation	2487	6	1119	35
Commissions, agents fees etc.	2191	24	967	21
Advertising, marketing, films and TV programmes	712	32	670	19
Processing and contracting manufacture	324	19	76	22
Repairs	173	18	195	19
Overhead expenses of subsidiaries, associates and branches	240	22	550	21
Patents, licences etc.	130	15	545	26
Wages and salaries	876	52	805	27
Insurance premiums and indemnities	164	13	274	11
Leasing	144	31	90	17
Private transfers	3265	76	4552	41
General government transfers	362	17	285	9
SERVICES, TOTAL	6229	9	3401	17
TRANFERS, TOTAL	3562	47	4738	23

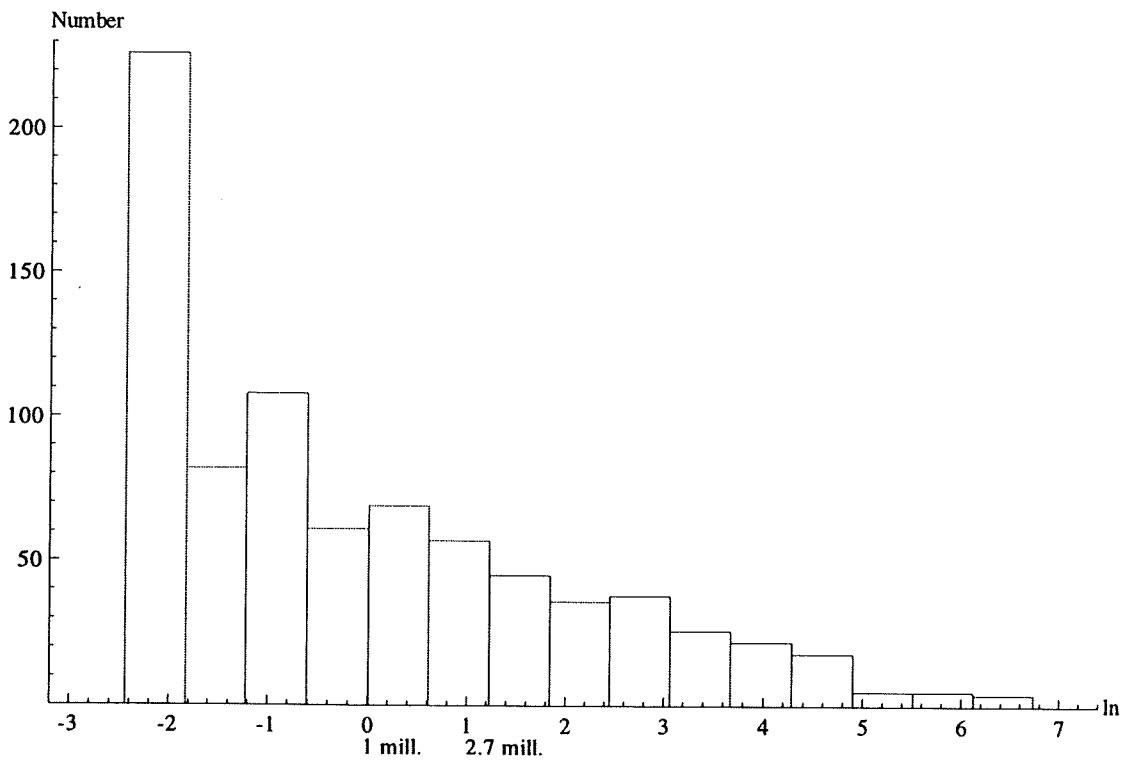
CUMULATIVE DISTRIBUTIONS 1993/1994: FINANCIAL ACCOUNT STOCKS

	ENTERPRISES	
	number	% of the number of enterprises
	N	90% of FIM value
Direct investment in Finland (1994)	1048	15
Bonds	13	62
Loans	148	36
Liabilities, total (excl. Trade credits)	164	25
Direct investment abroad	558	9
Other assets	88	28

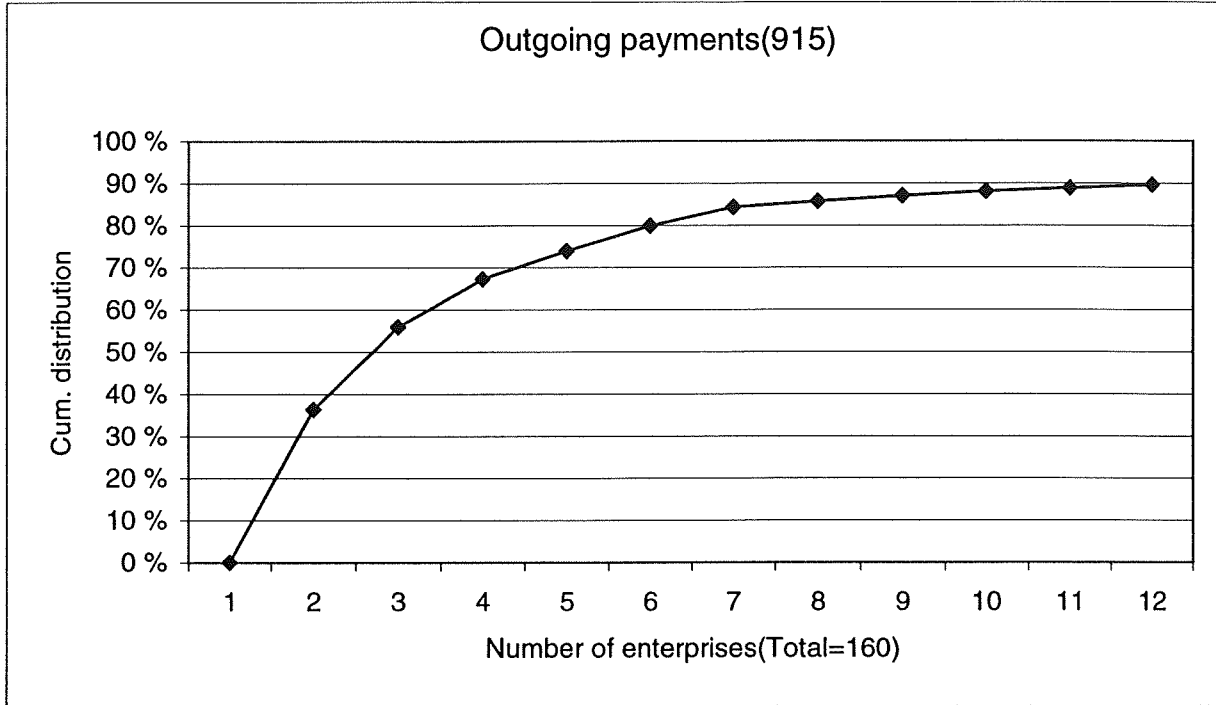
Goods Transport, 1996



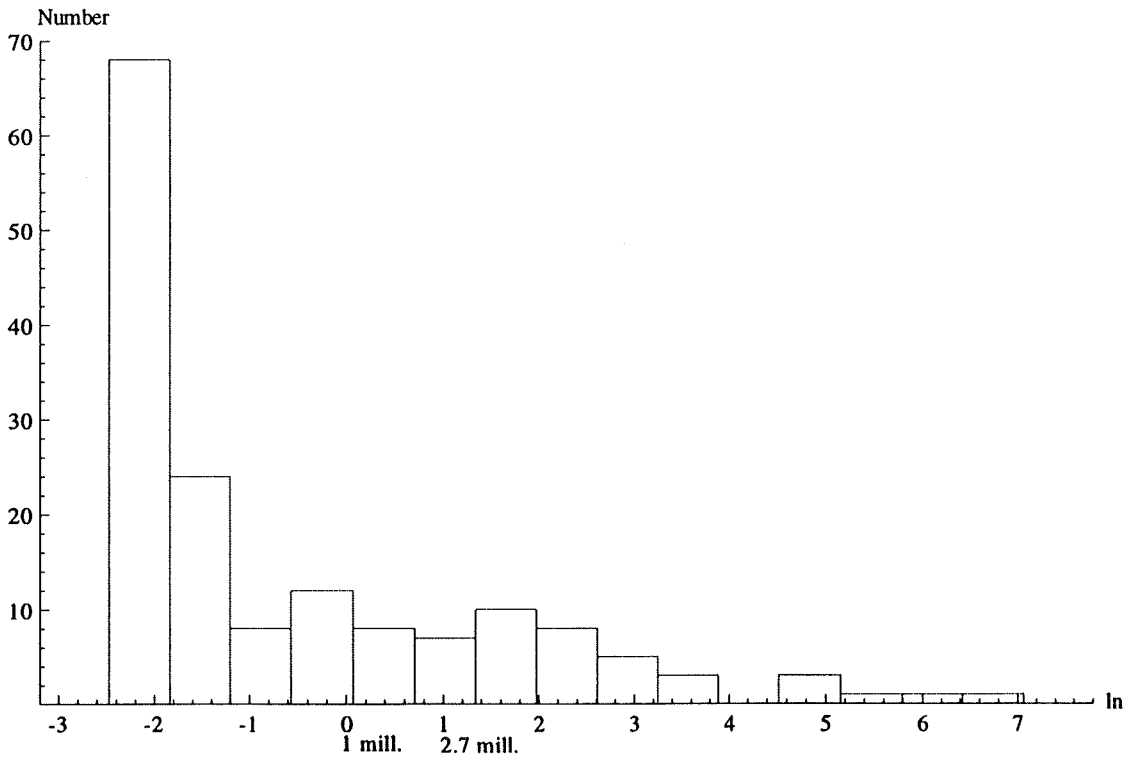
Classified frequency distribution by enterprises



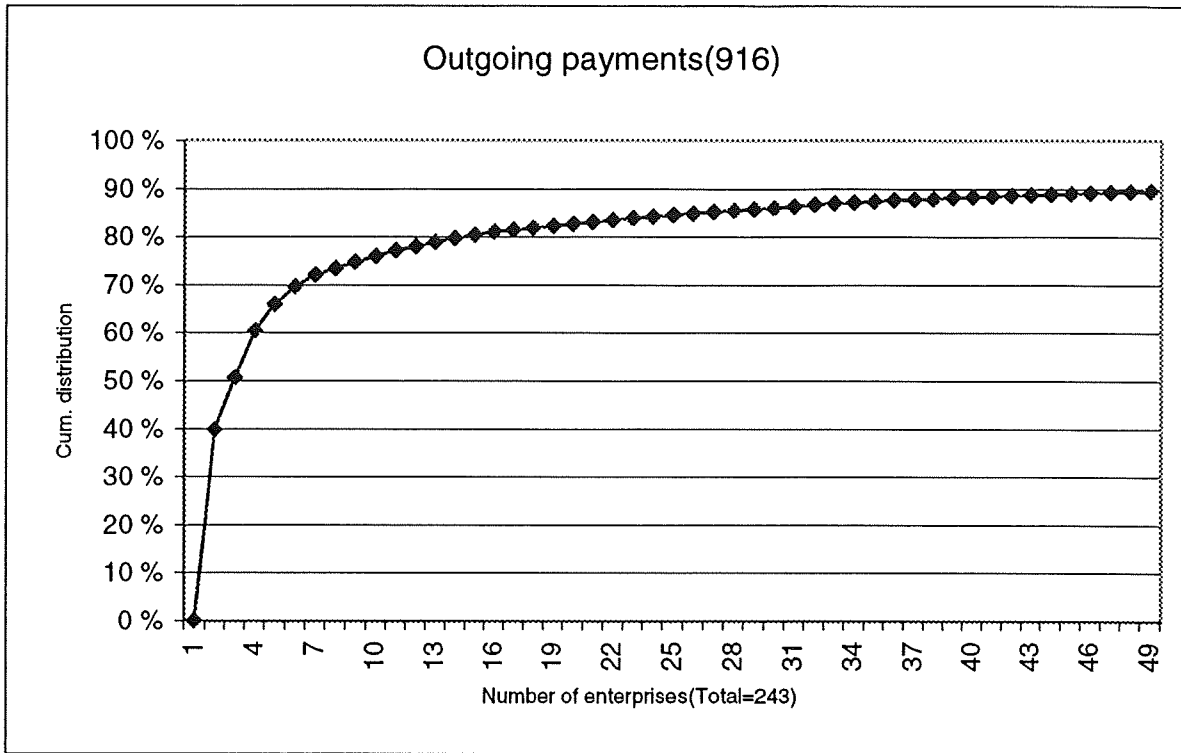
Passenger Traffic, 1996



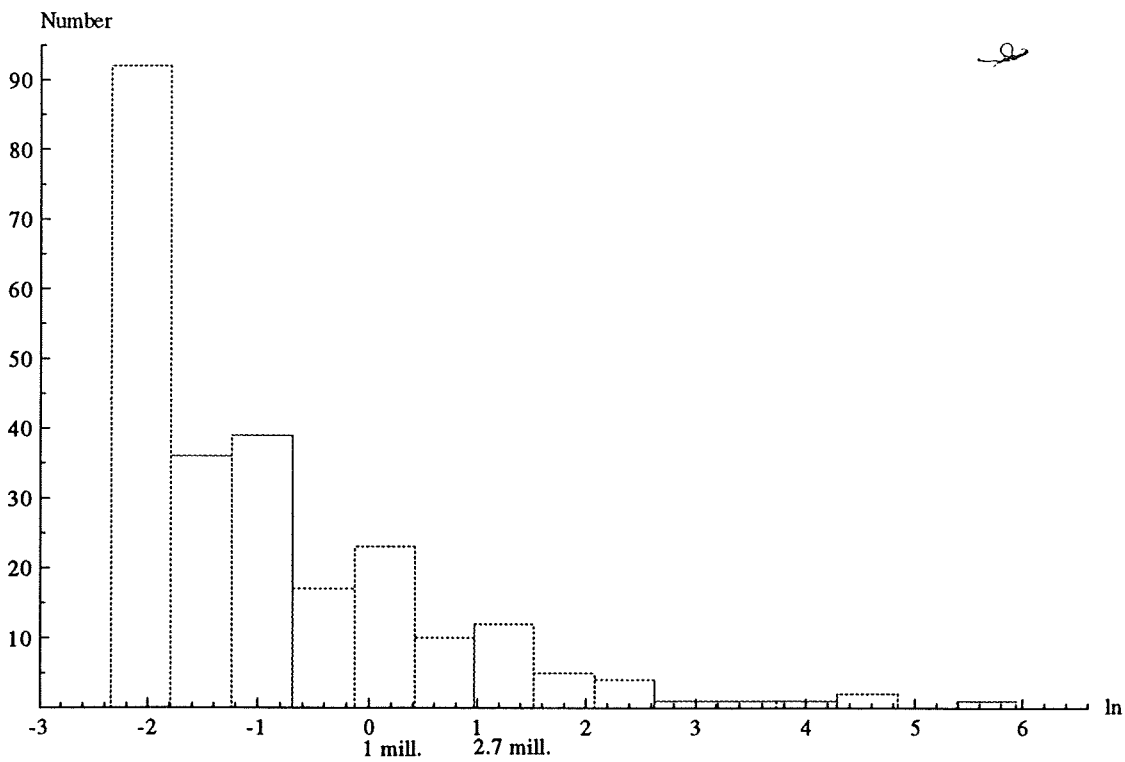
Classified frequency distribution by enterprises (ln)



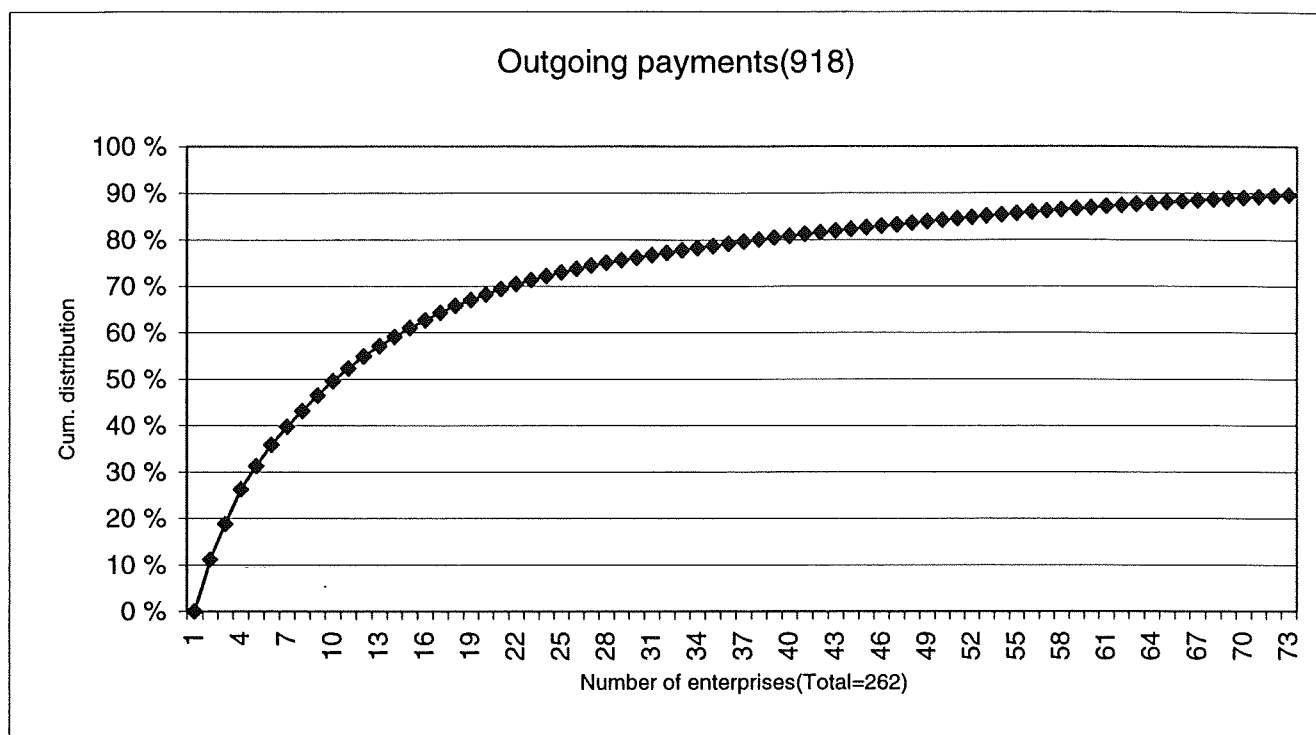
Communications, 1996



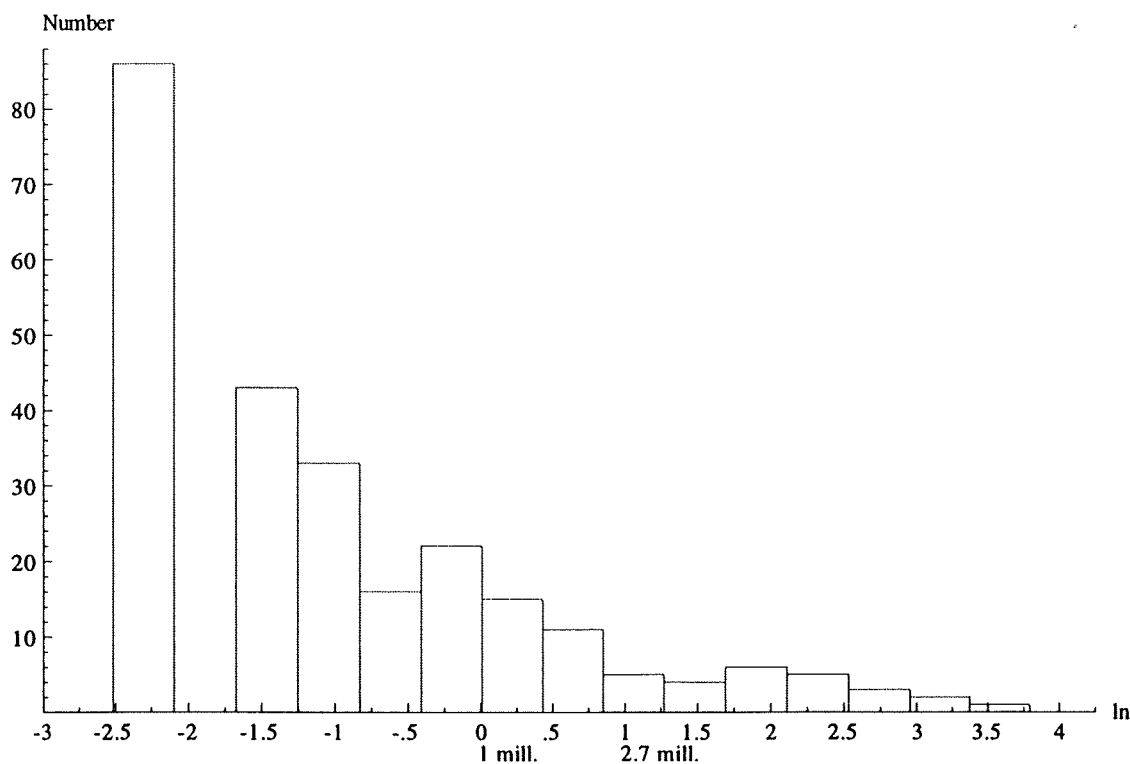
Classified frequency distribution by enterprises (ln)



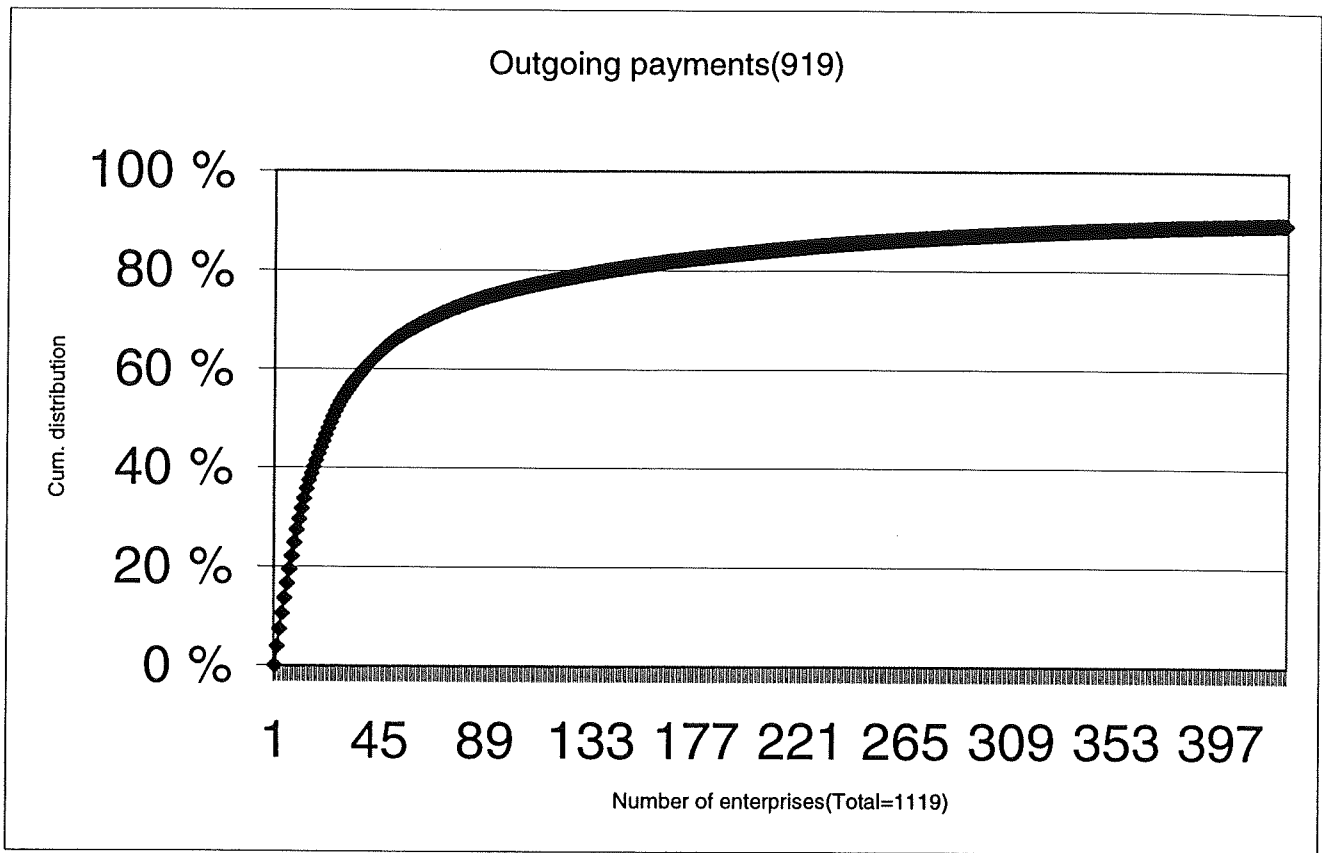
Planning and contracting pertaining to construction projects, 1996



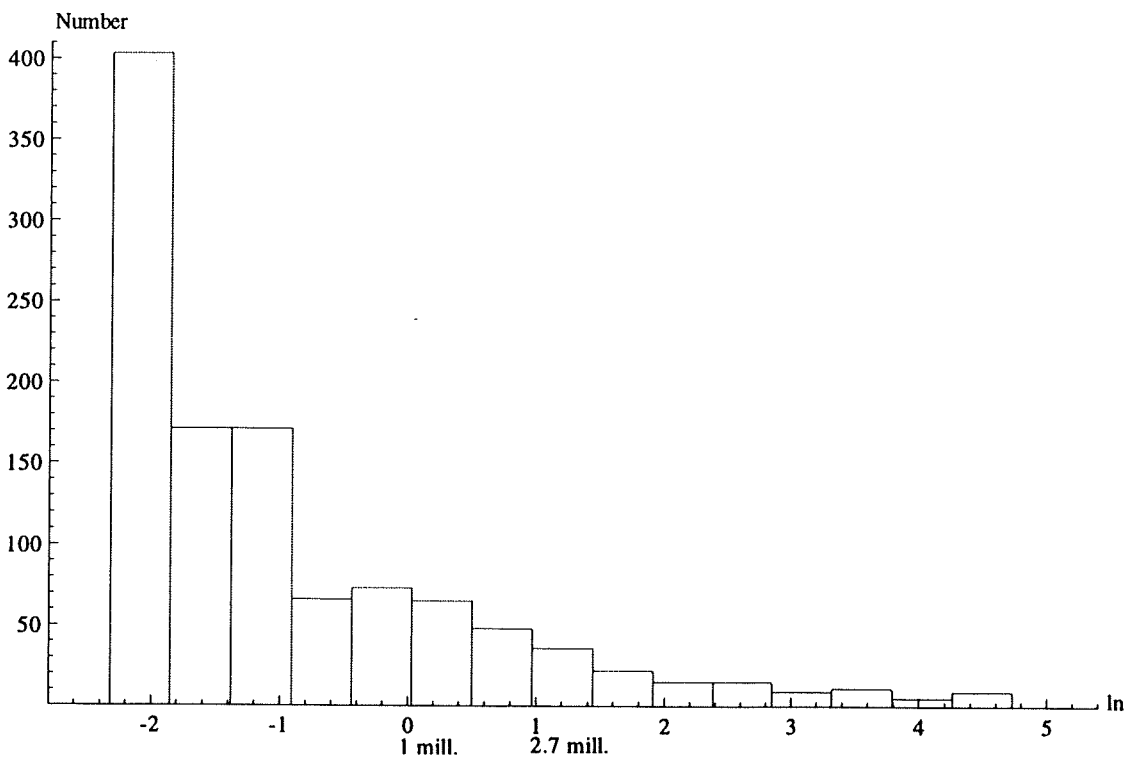
Classified frequency distribution by enterprises (ln)



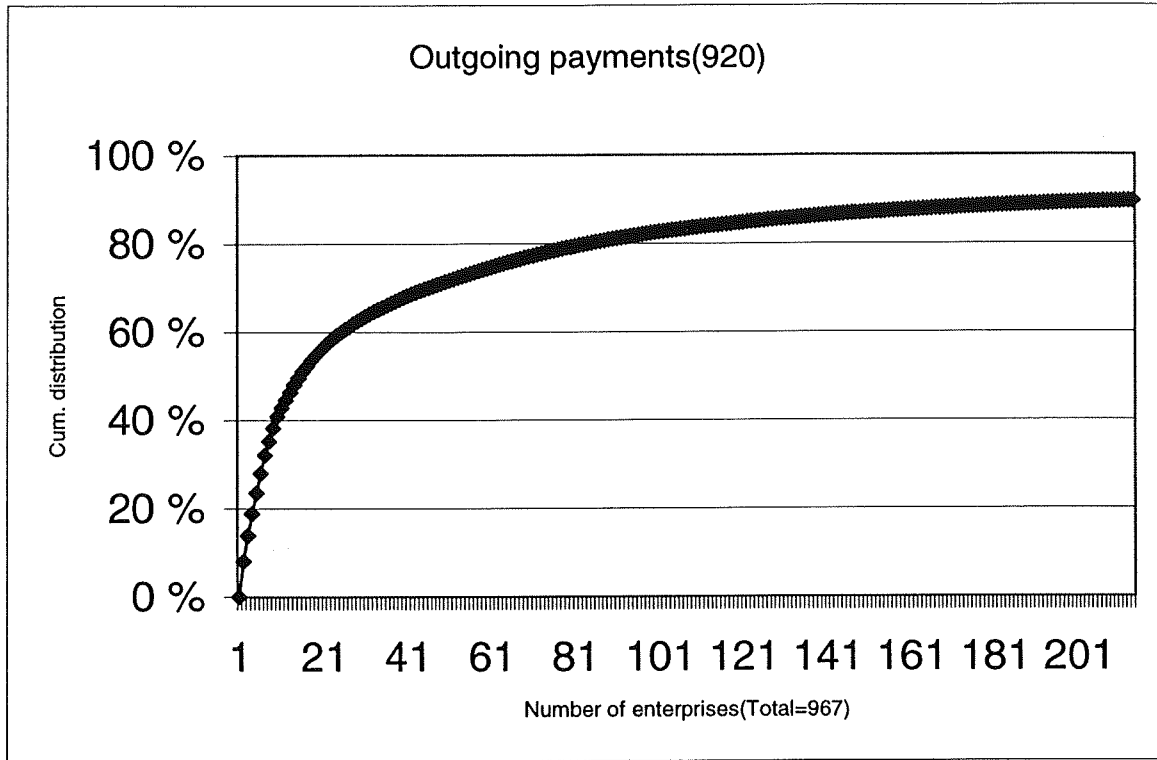
Other planning and project implementation, 1996



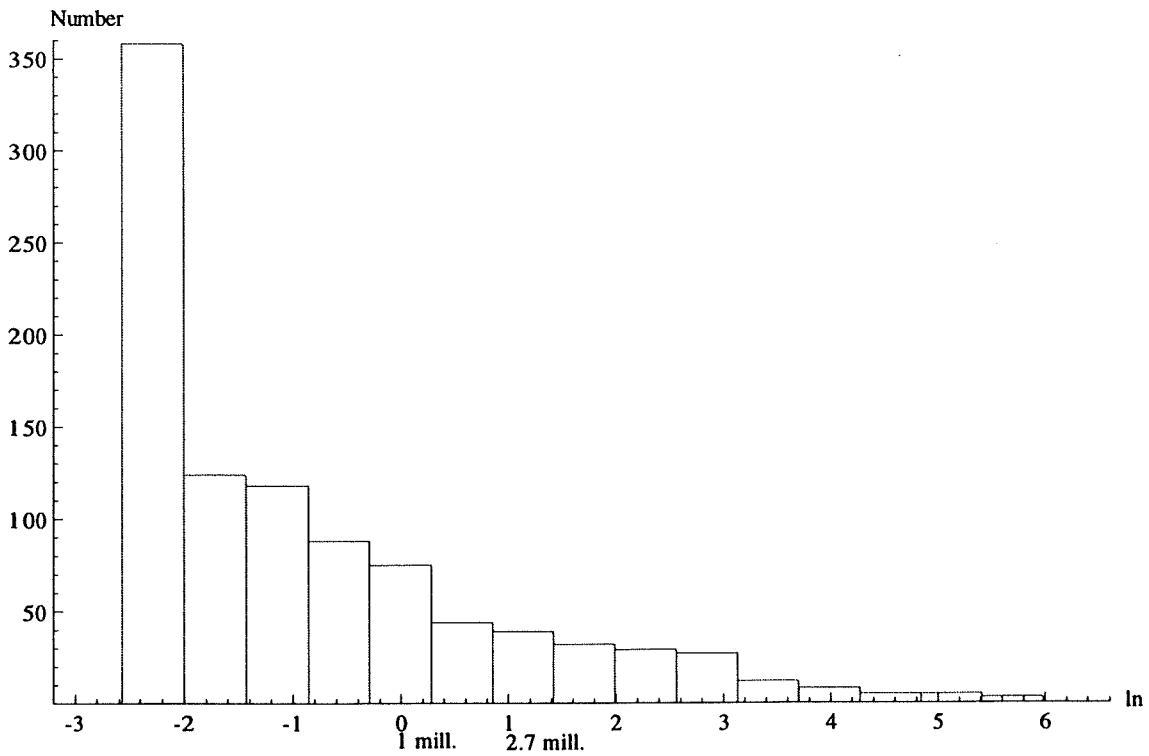
Classified frequency distribution by enterprises (ln)



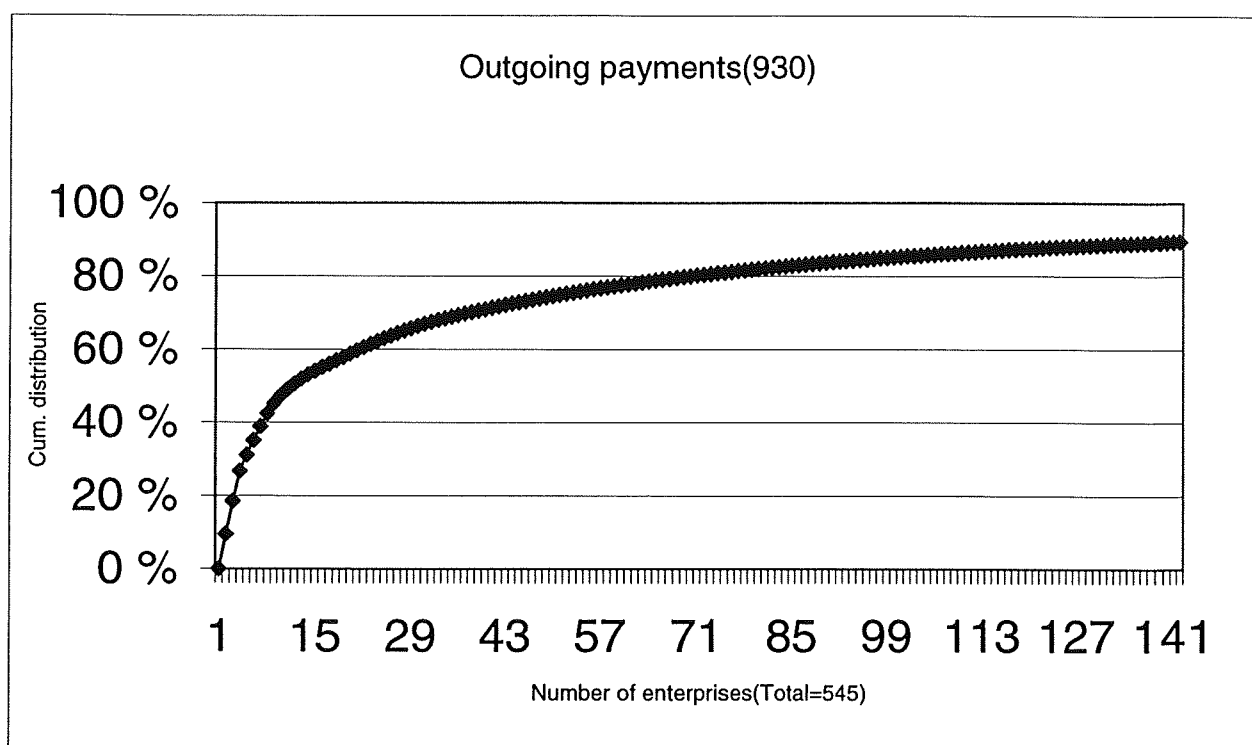
Commissions, agent's fees etc., 1996



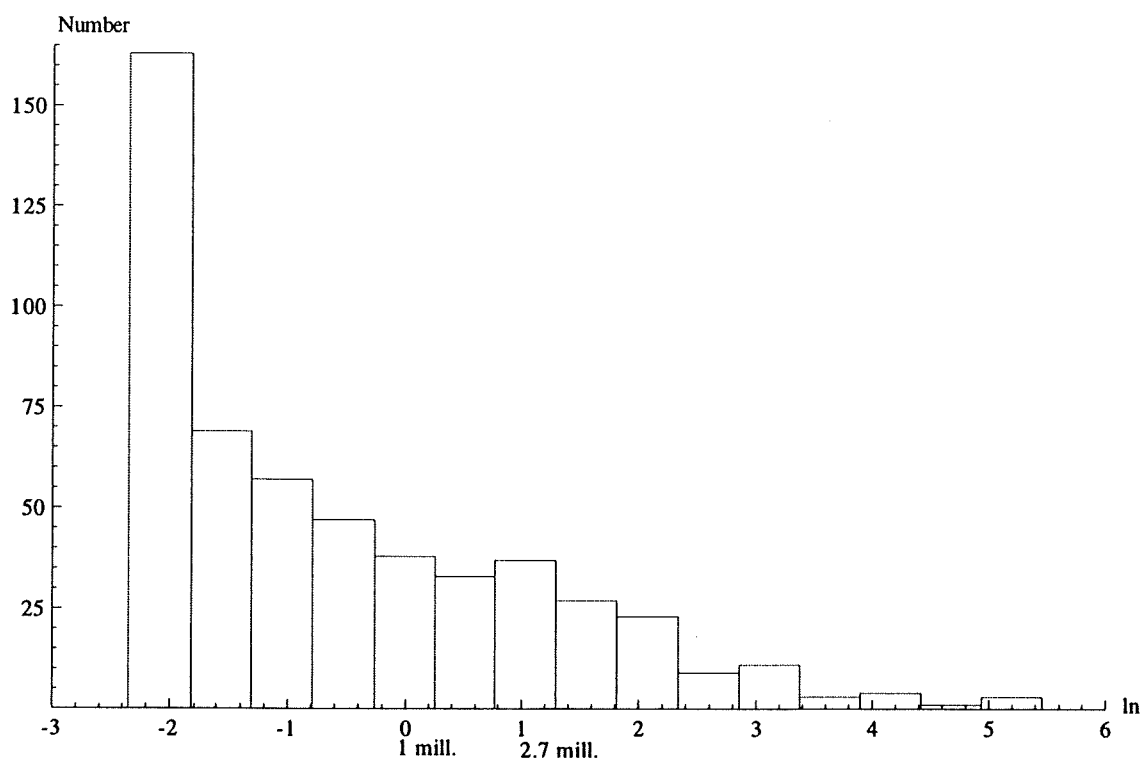
Classified frequency distribution by enterprises (ln)



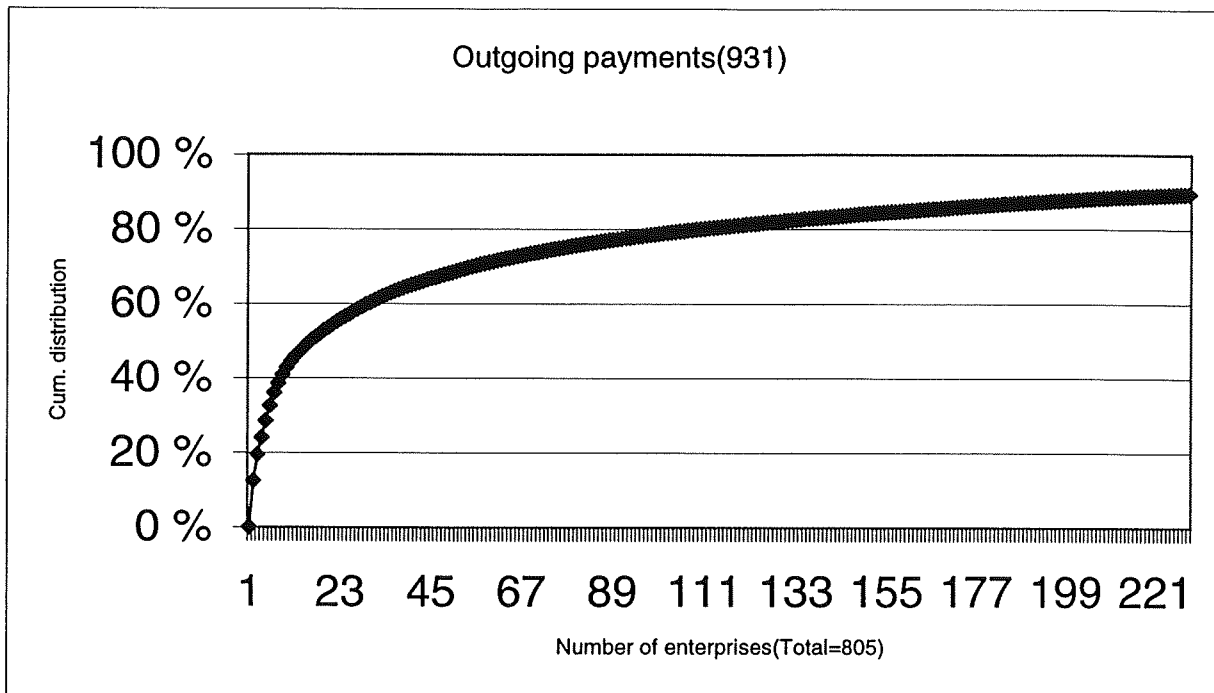
Patents, licences, royalties and franchises, 1996



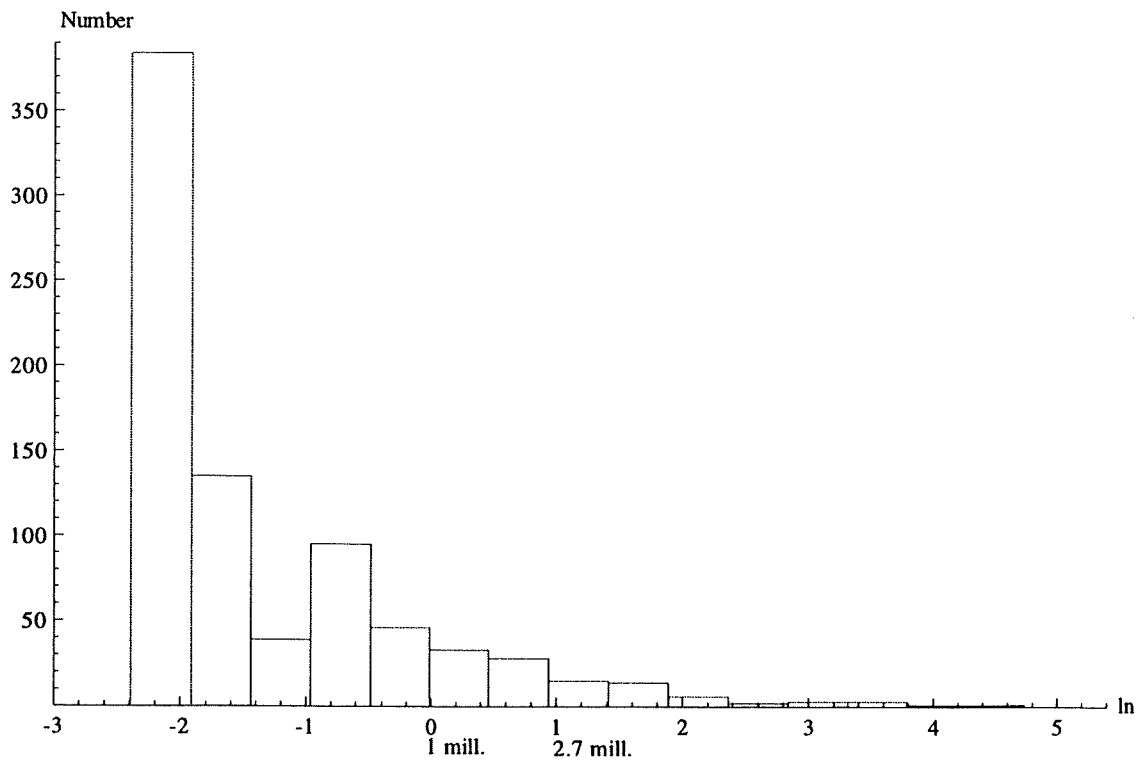
Classified frequency distribution by enterprises (ln)



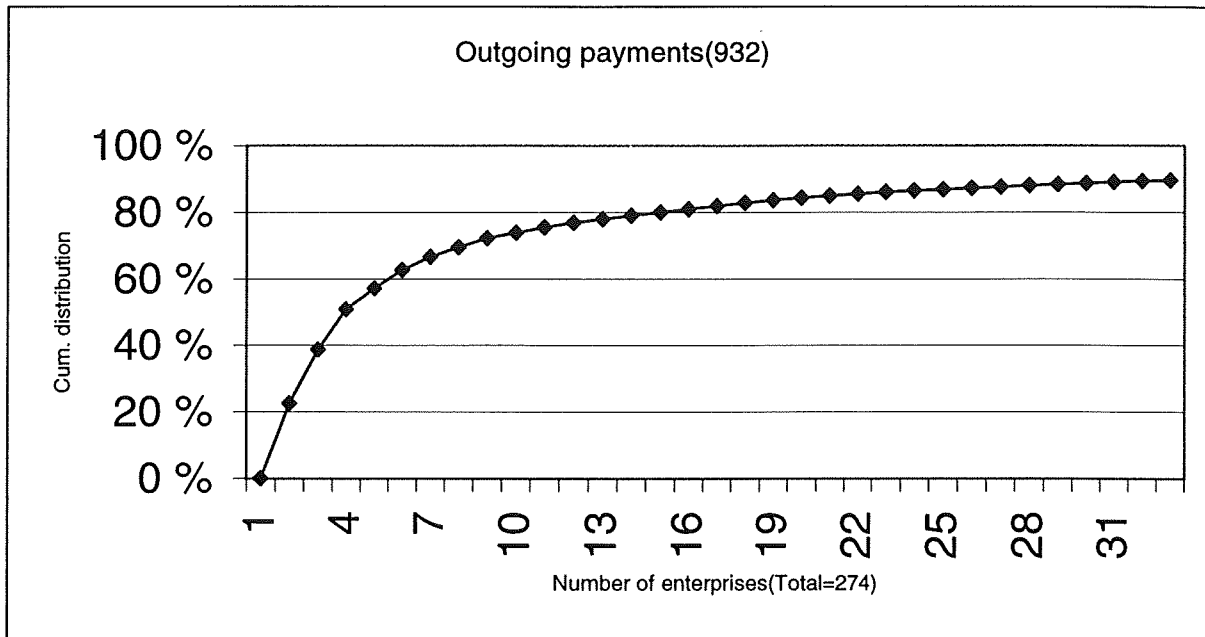
Wages and salaries, 1996



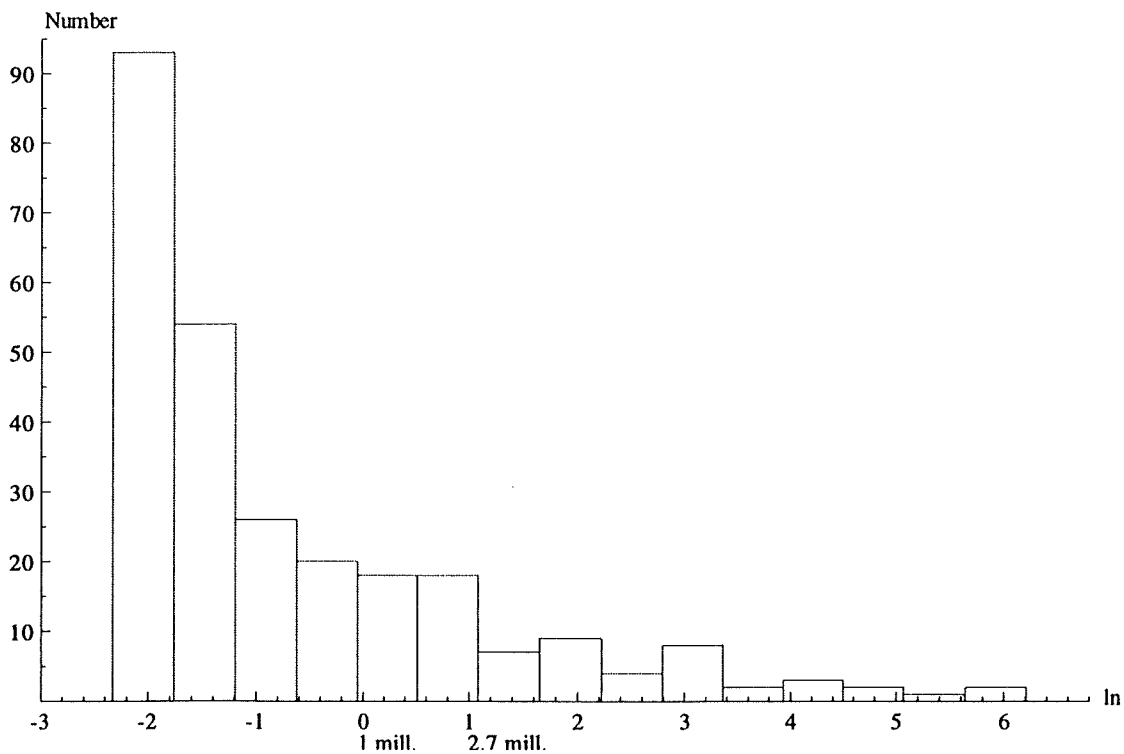
Classified frequency distribution by enterprises (ln)



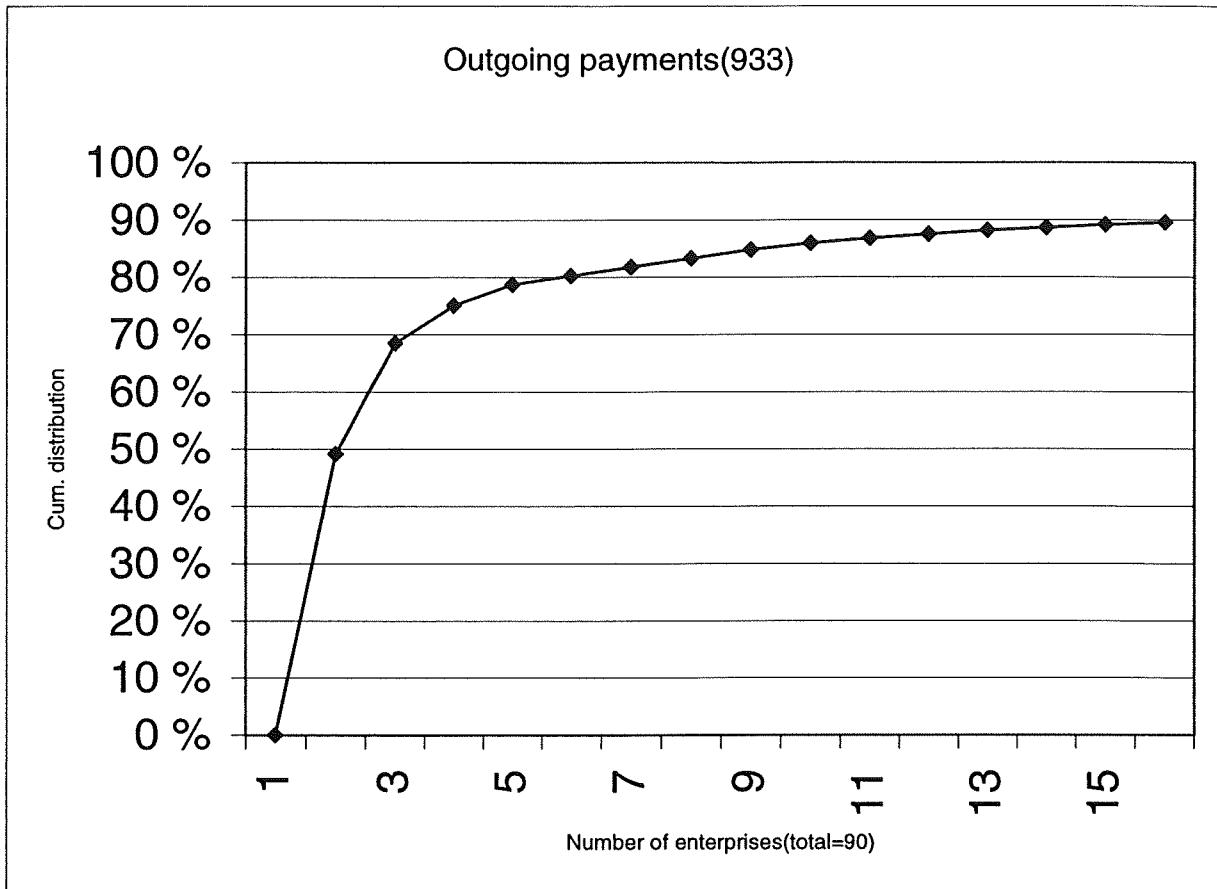
Insurance premiums and indemnities, 1996



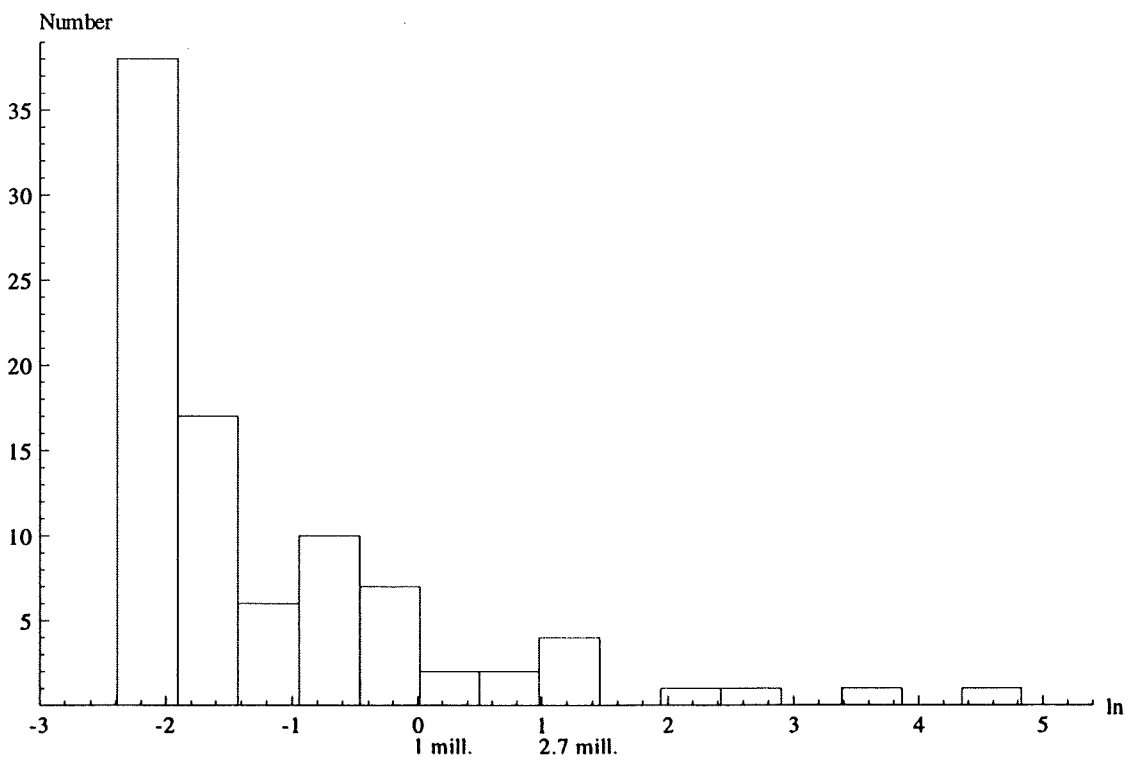
Classified frequency distribution by enterprises (ln)



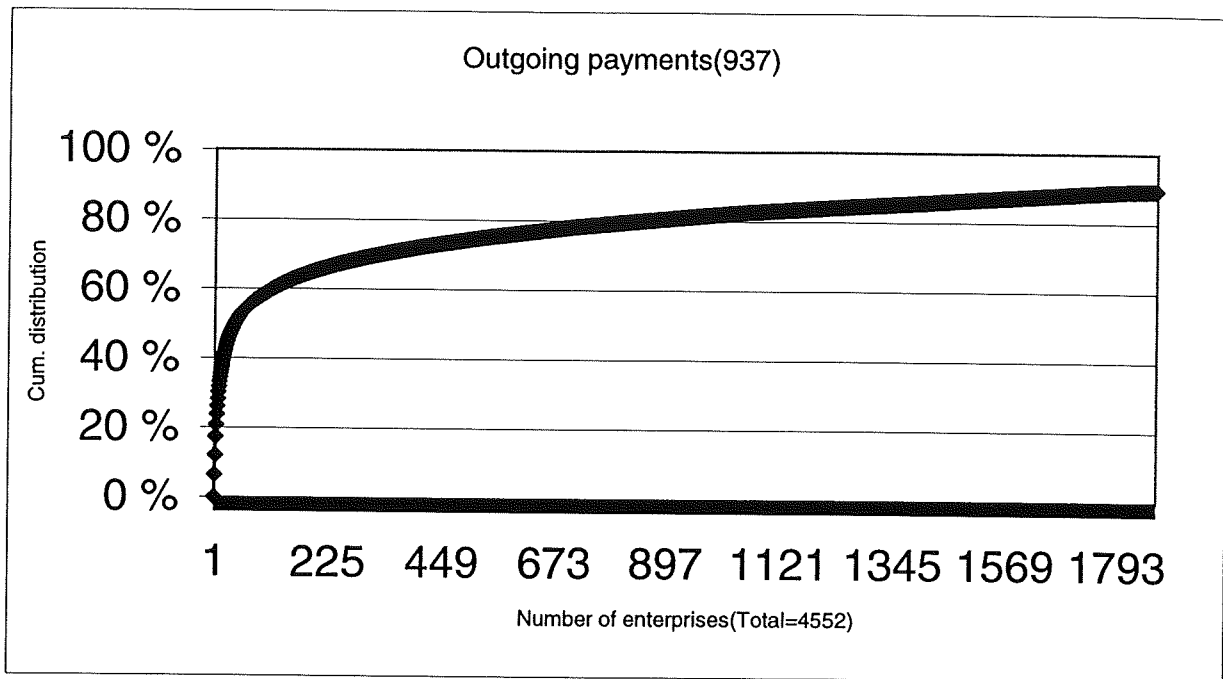
Leasing, 1996



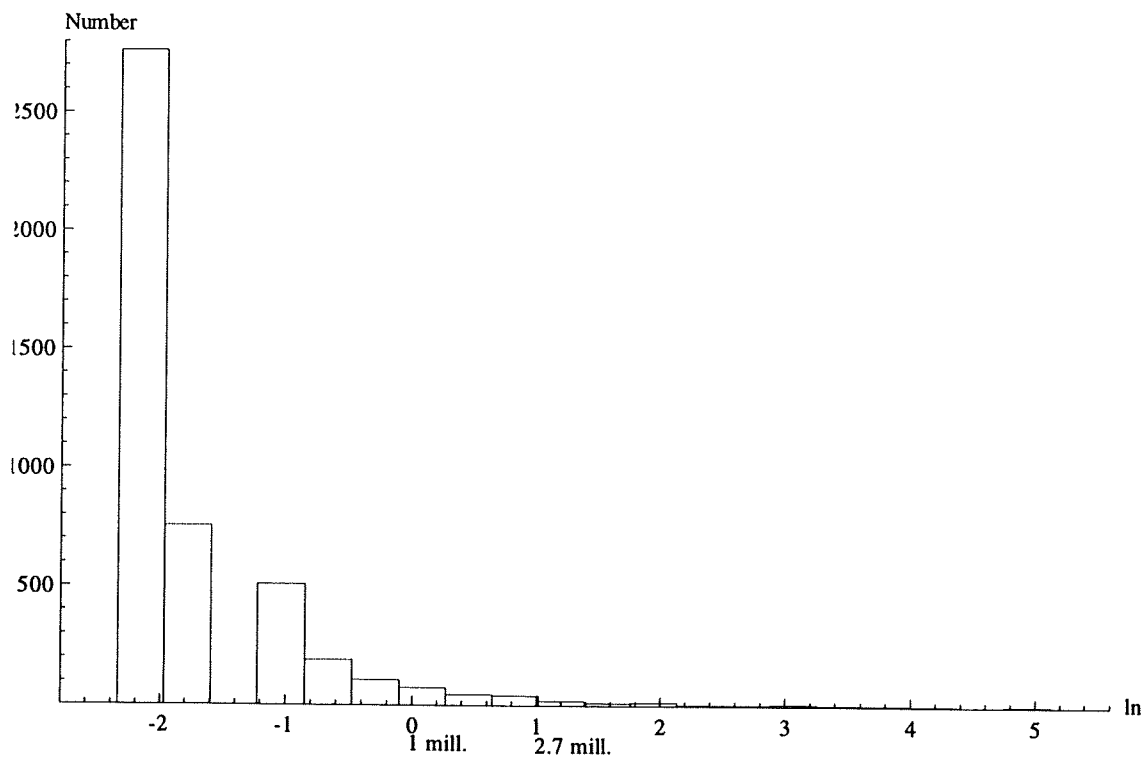
Classified frequency distribution by enterprises (ln)



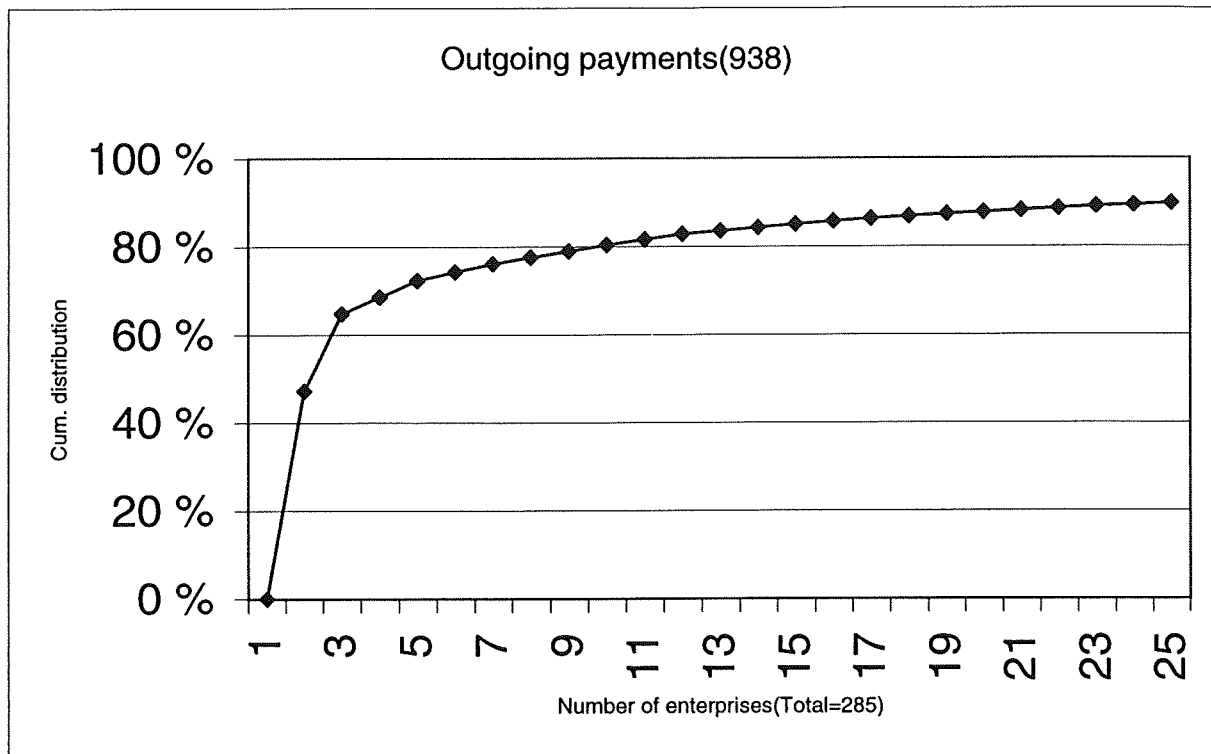
Private transfers, 1996



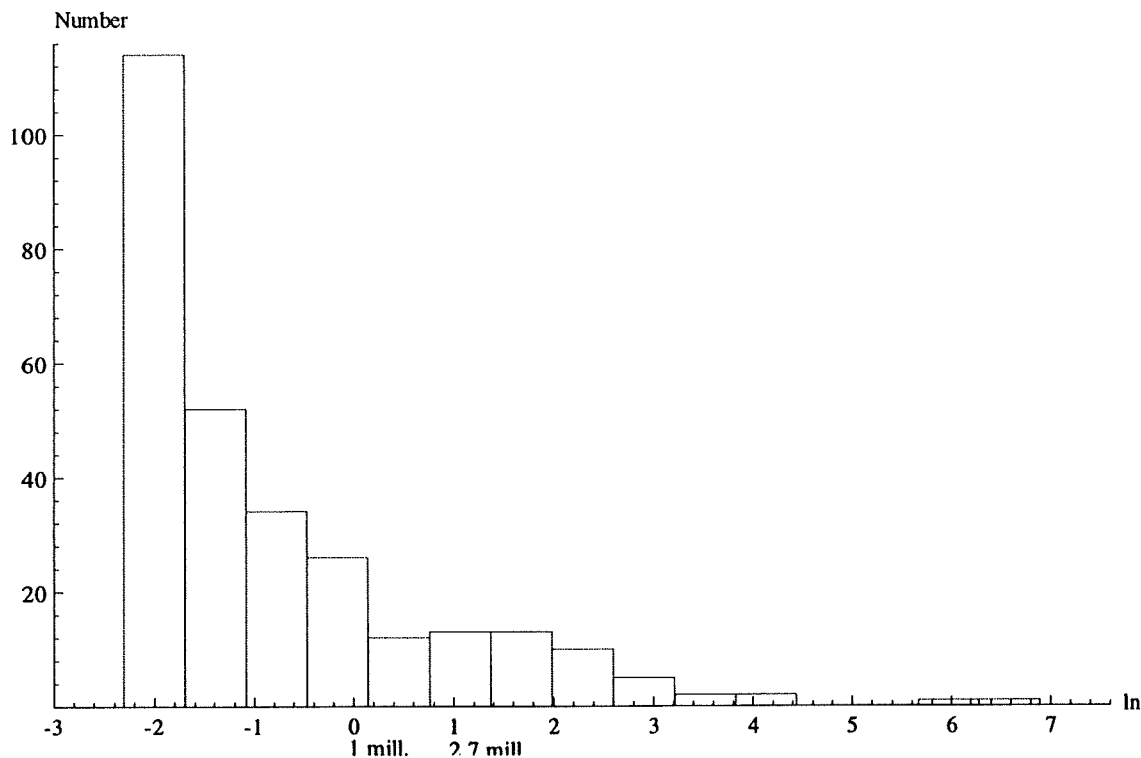
Classified frequency distribution by enterprises



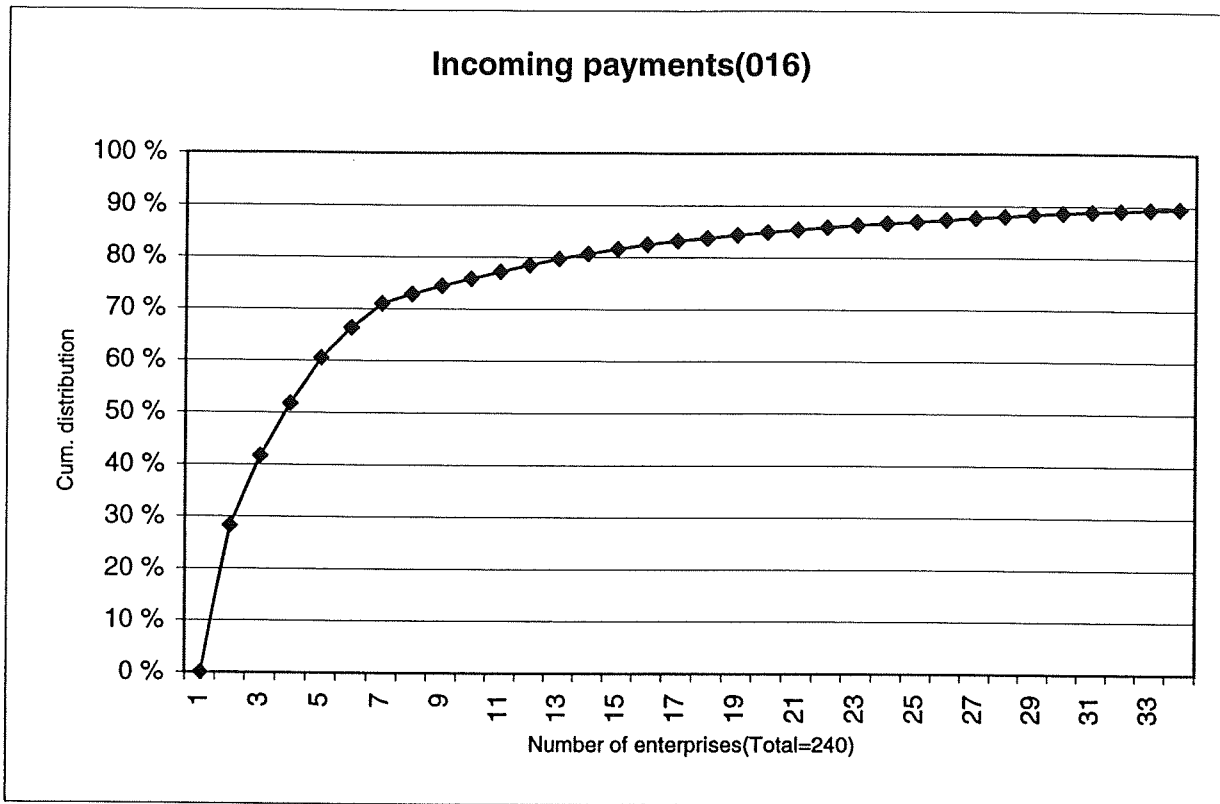
General government transfers, 1996



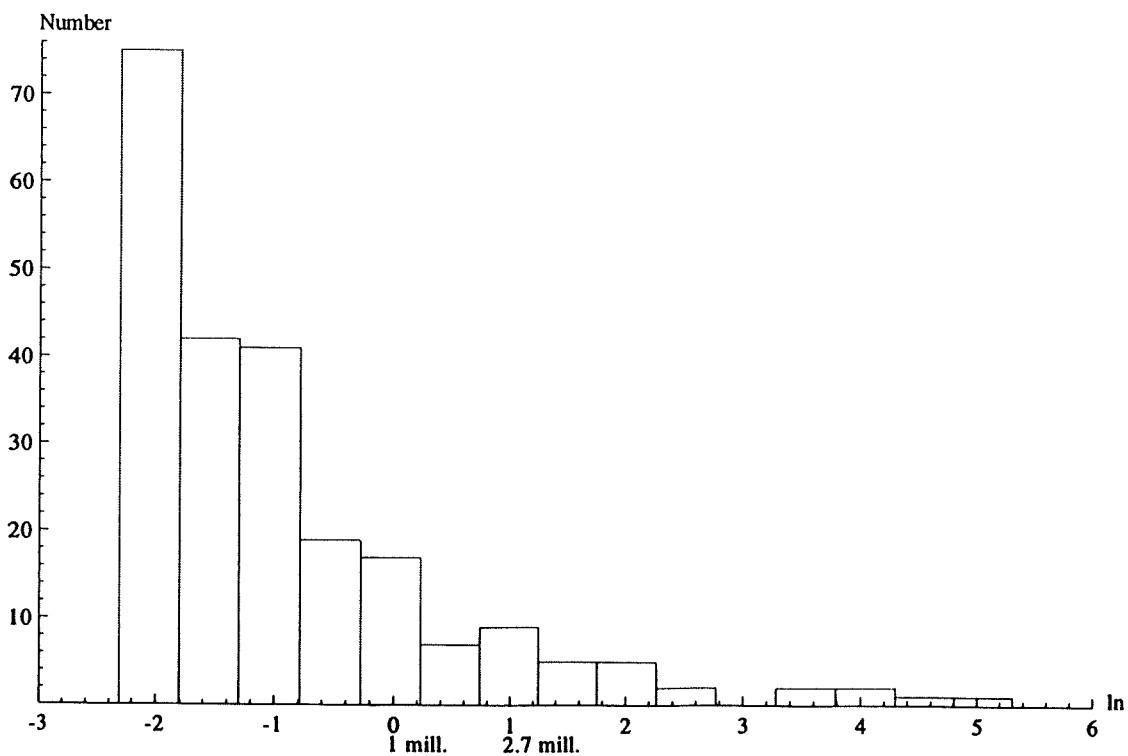
Classified frequency distribution by enterprises (ln)



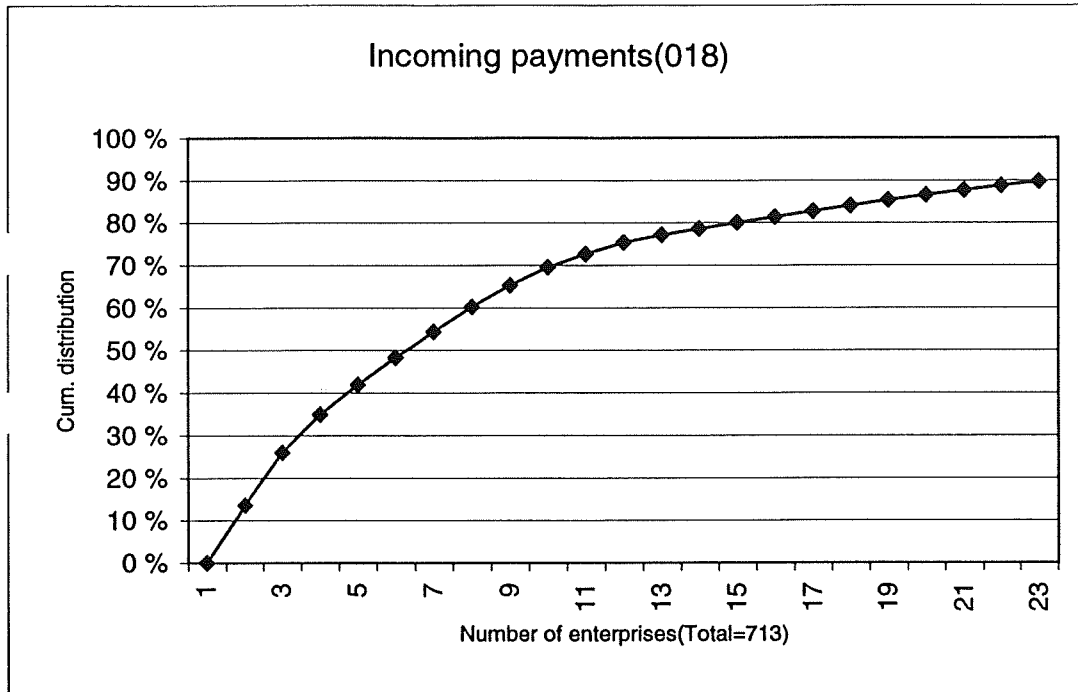
Communications, 1996



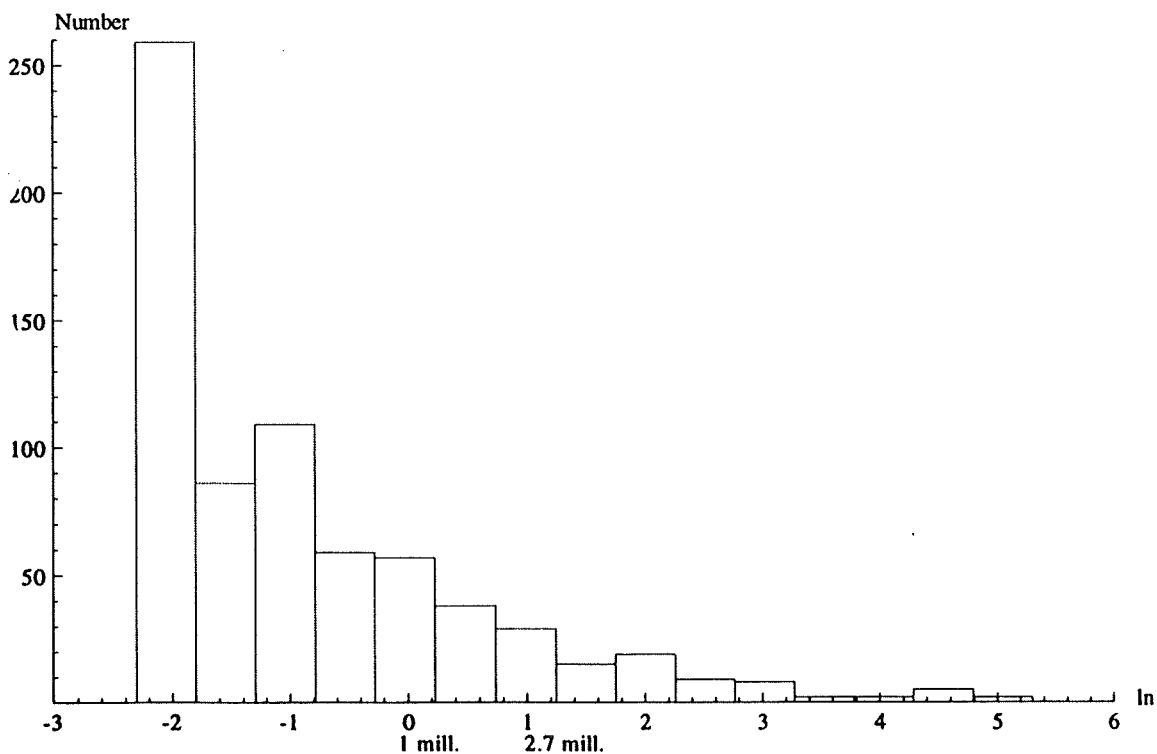
Classified frequency distribution by enterprises (ln)



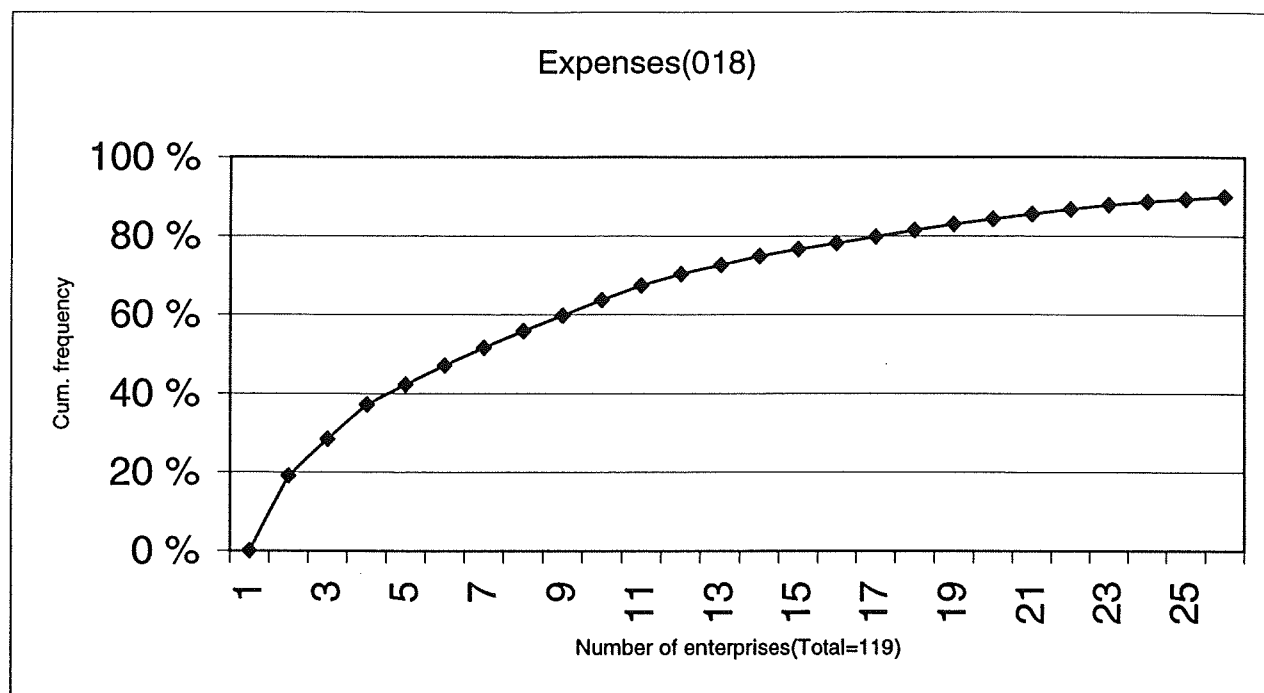
Planning and contracting pertaining to construction projects, 1996



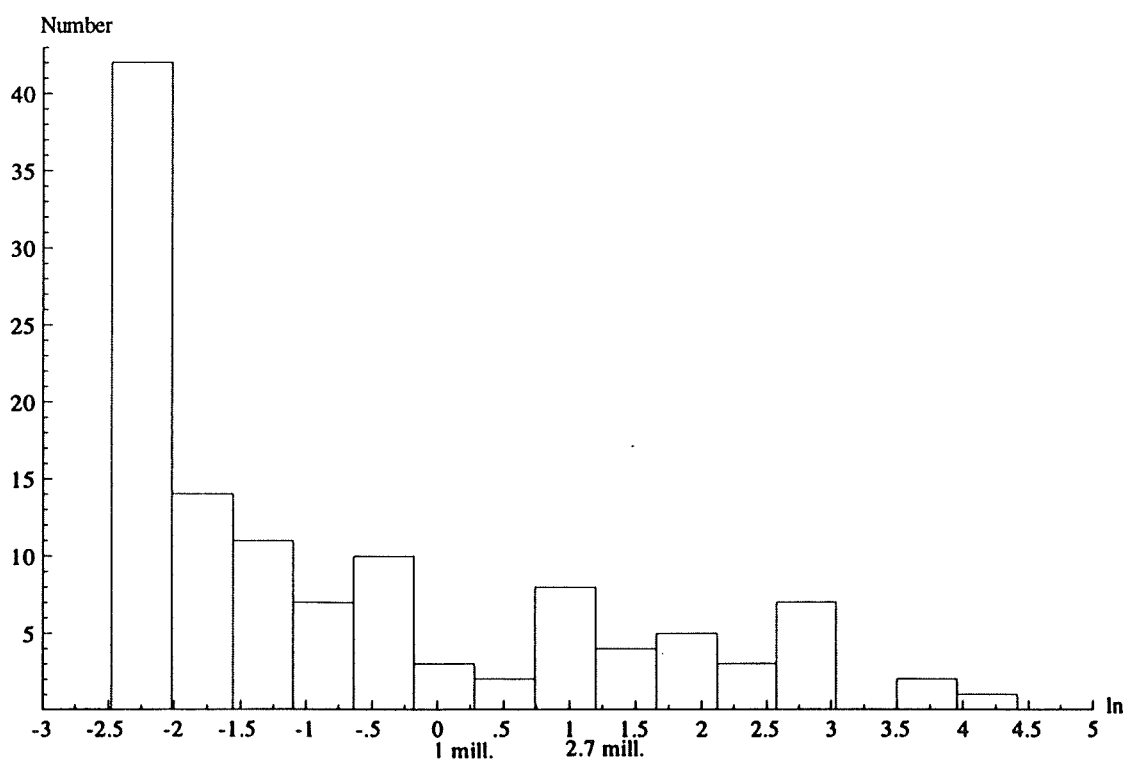
Classified frequency distribution by enterprises (ln)



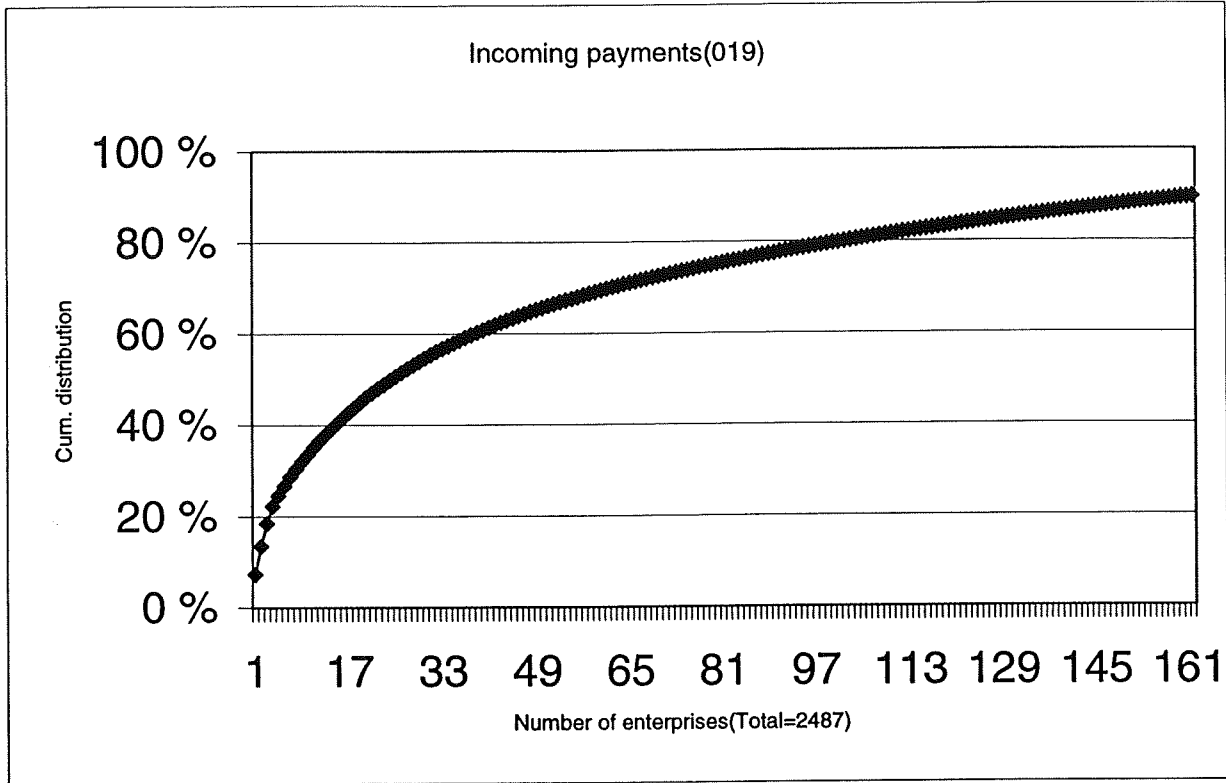
Planning and contracting pertaining to construction projects, 1996



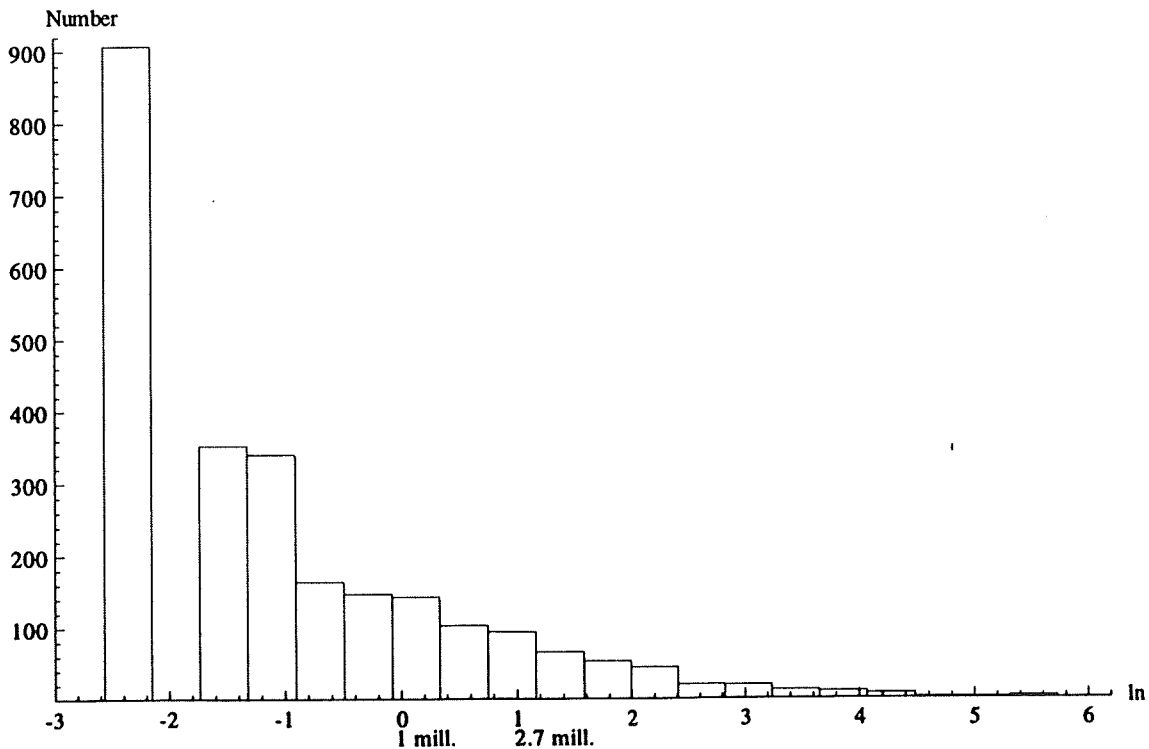
Classified frequency distribution by enterprises



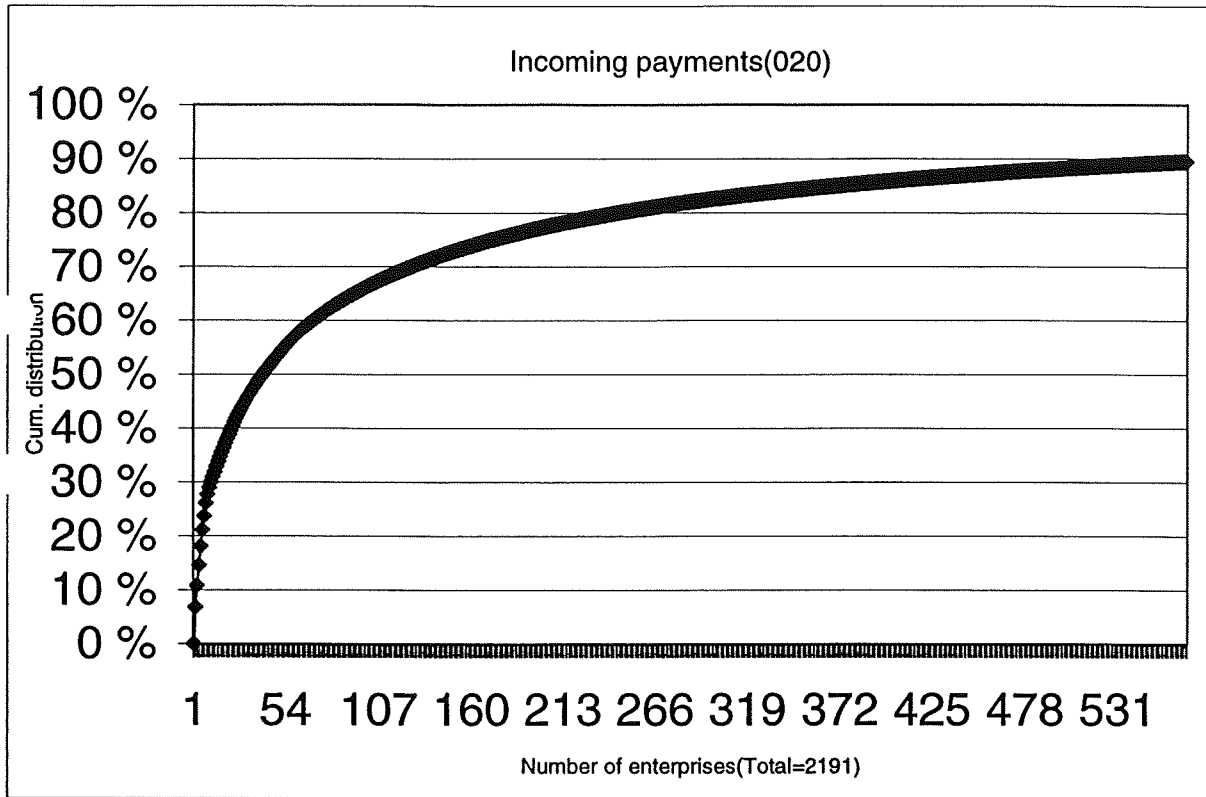
Other planning and project implementation, 1996



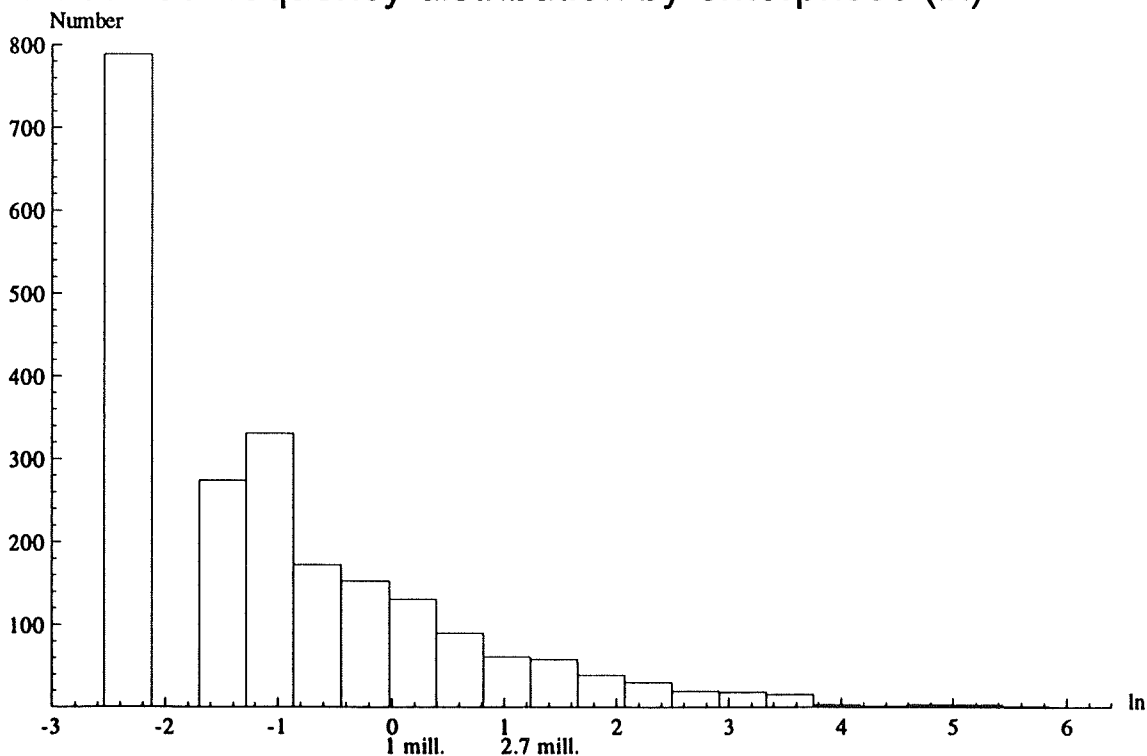
Classified frequency distribution by enterprises (ln)



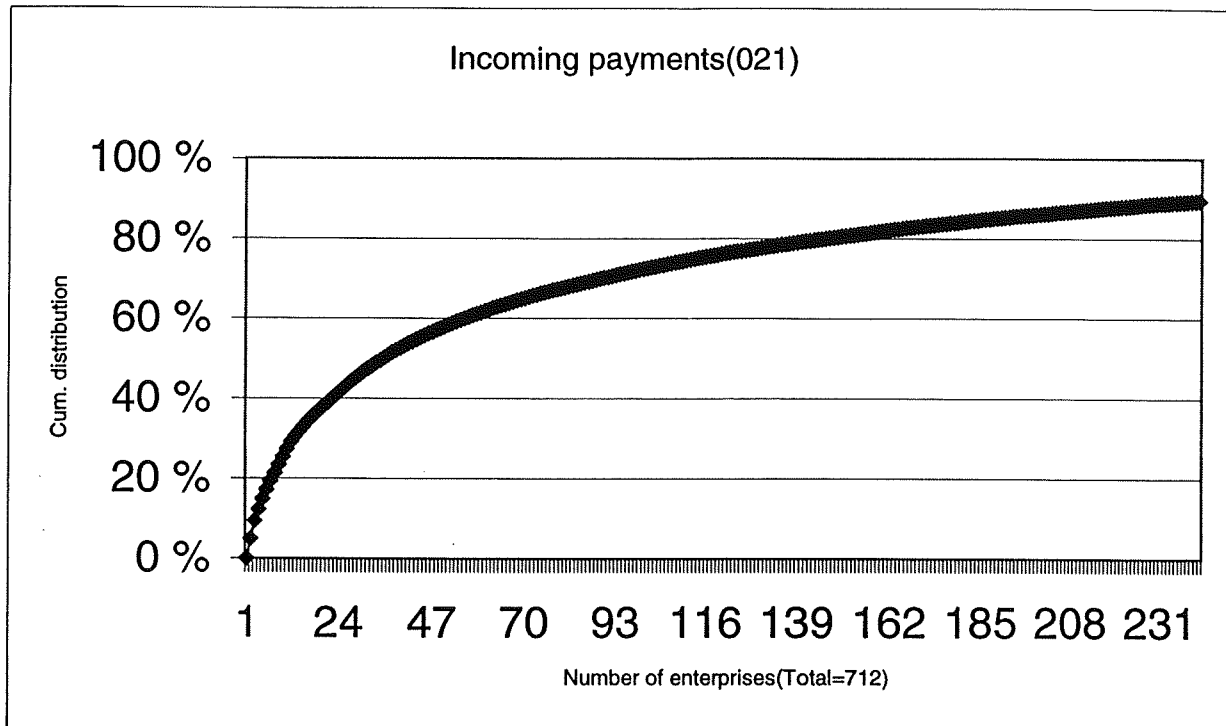
Commissions, agent's fees etc., 1996



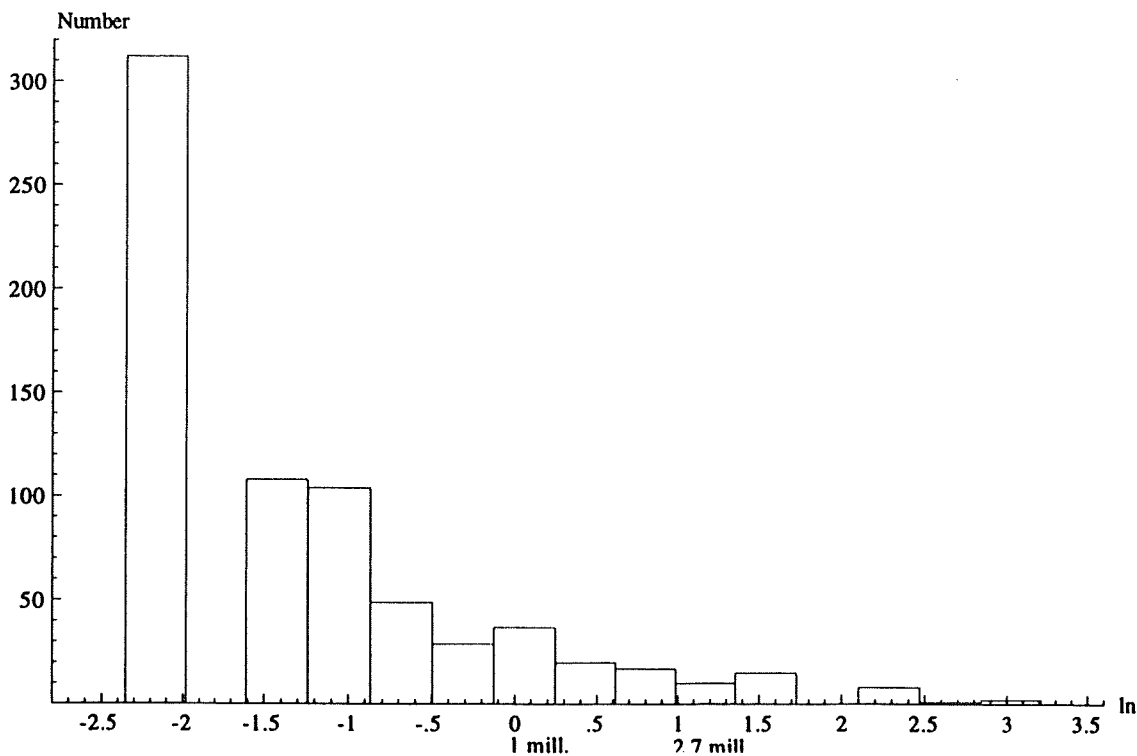
Classified frequency distribution by enterprises (ln)



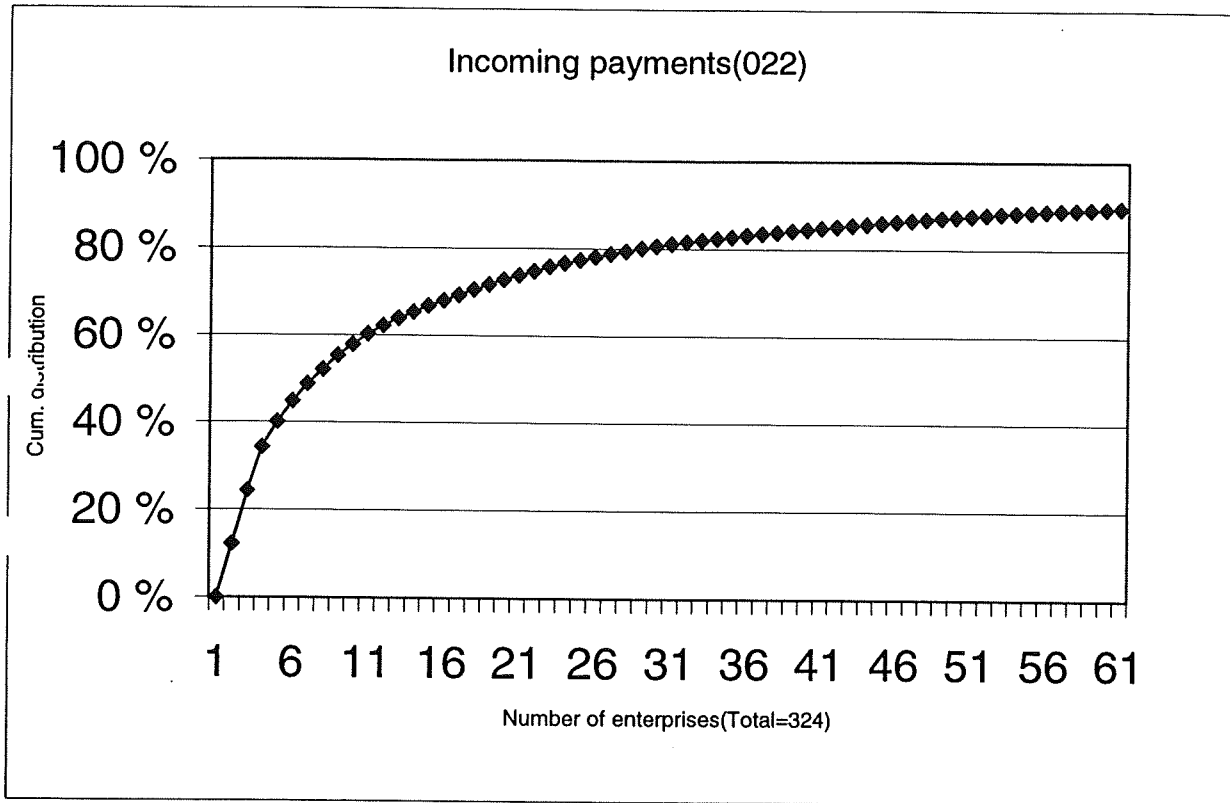
Advertising, marketing, films and TV programmes, 1996



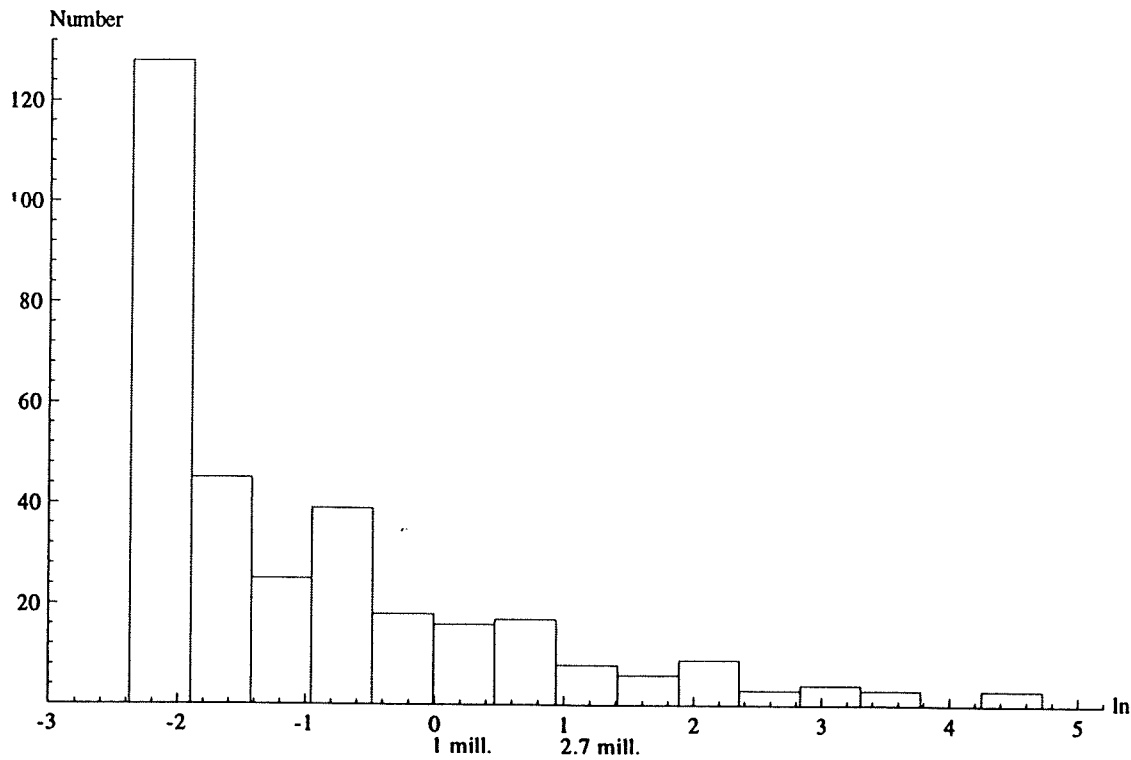
Classified frequency distribution by enterprises (ln)



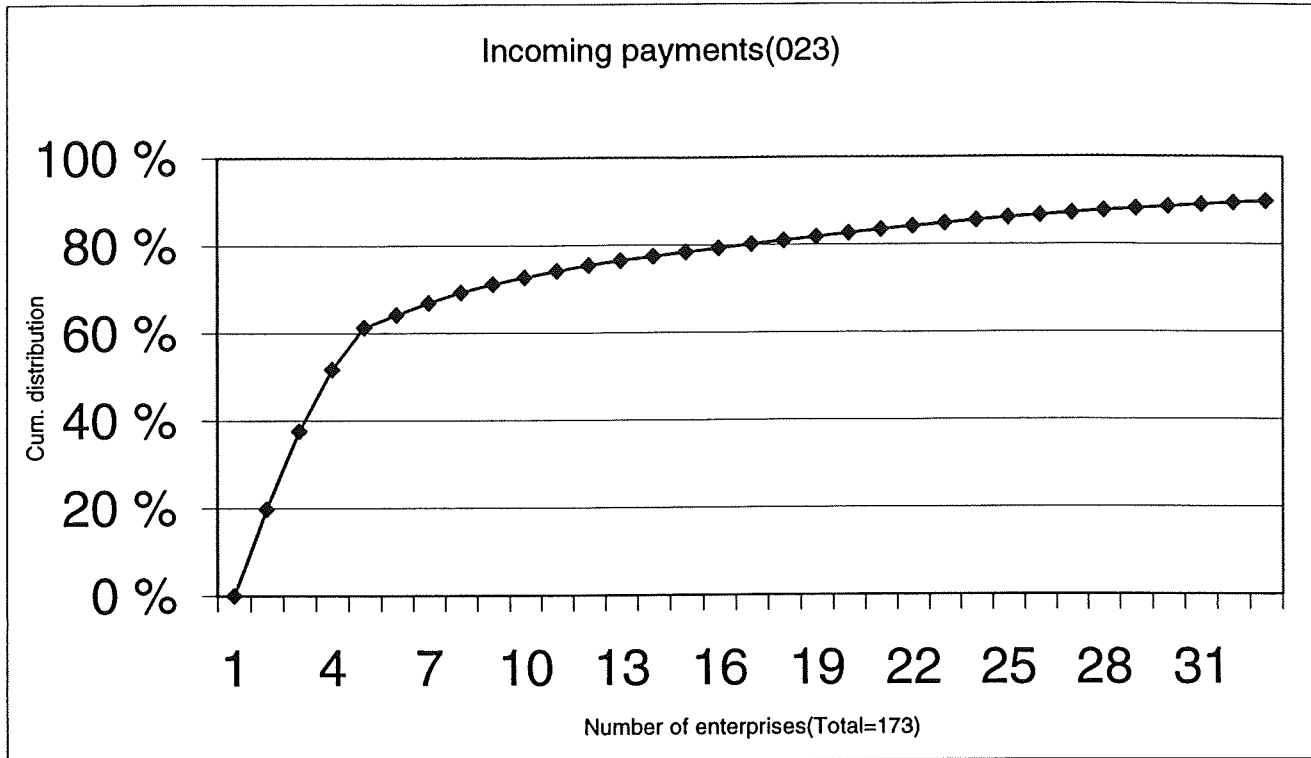
Processing and contract manufacture, 1996



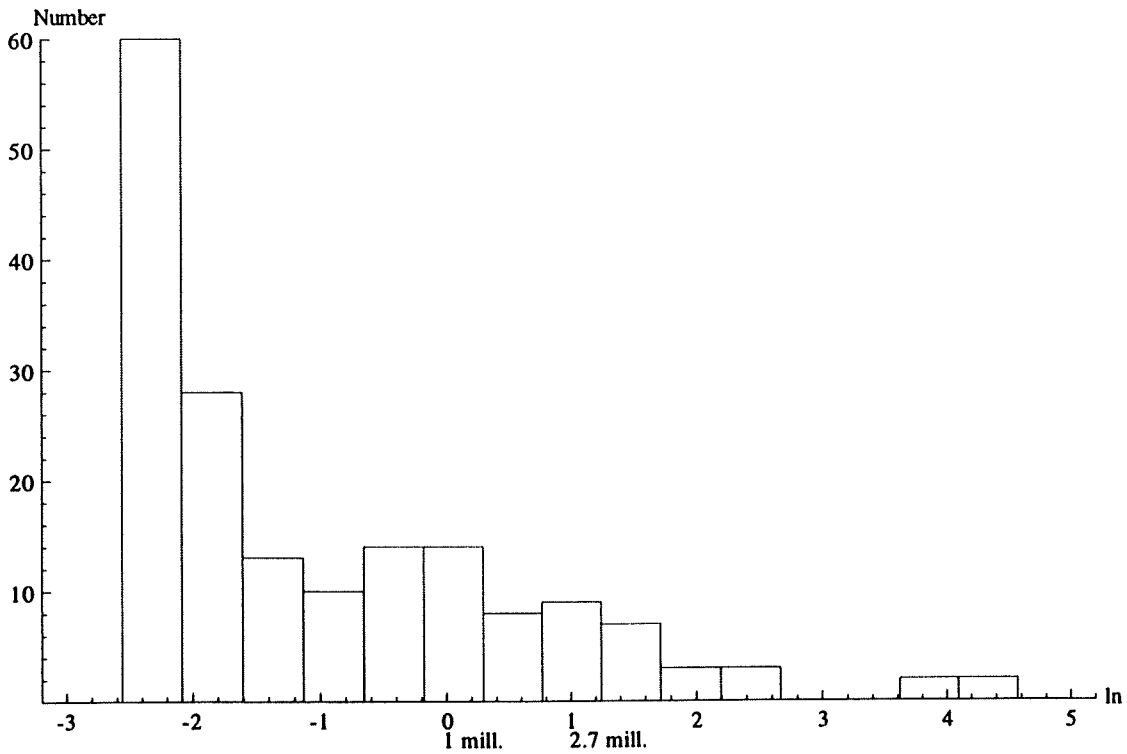
Classified frequency distribution by enterprises (ln)



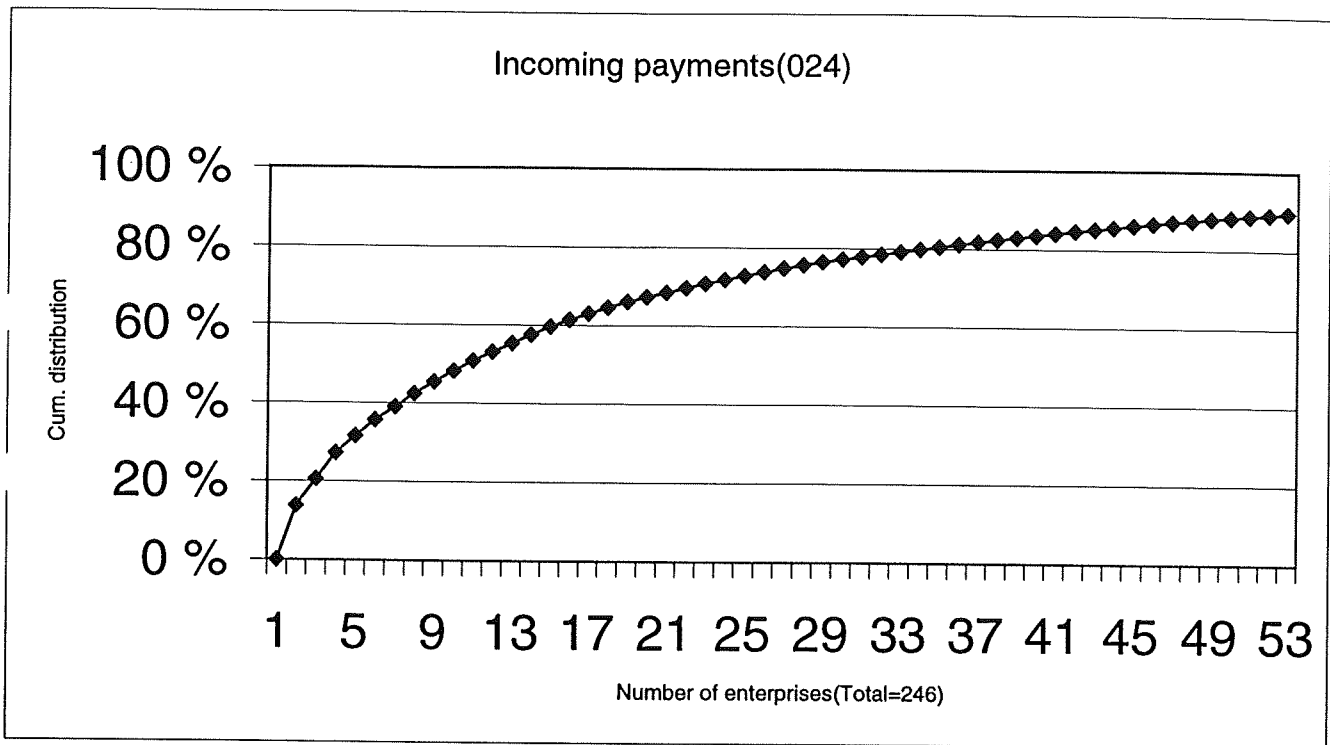
Repairs, 1996



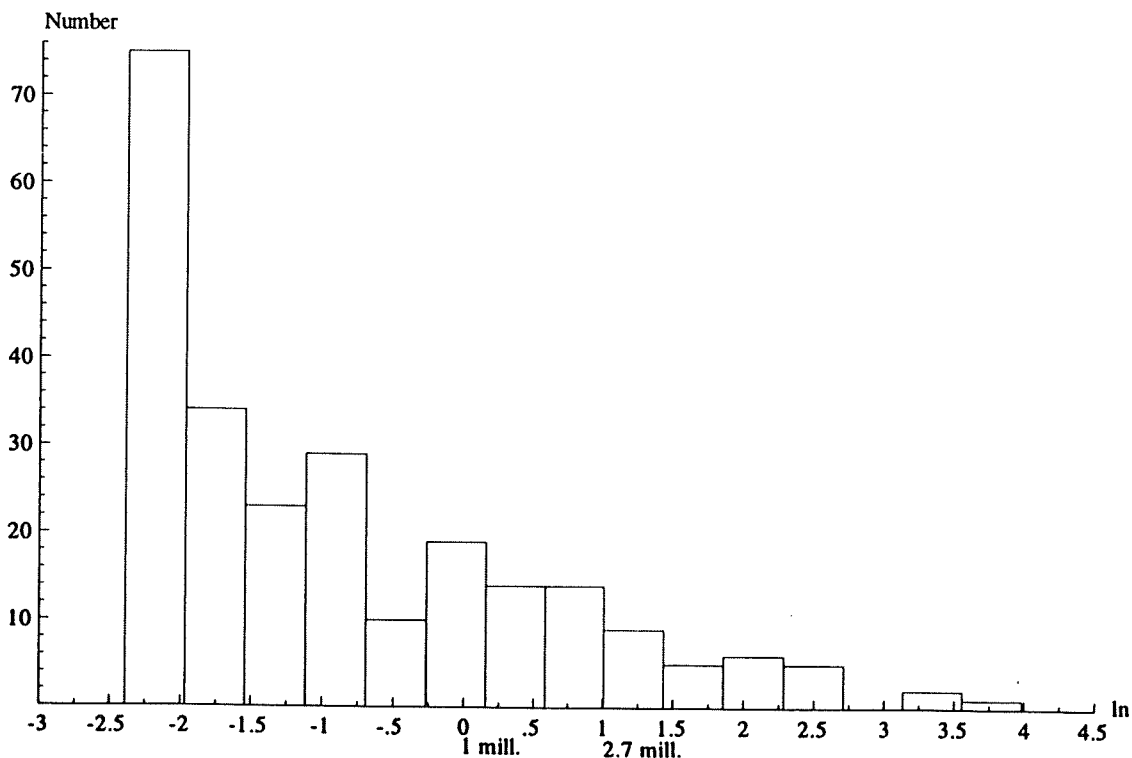
Classified frequency distribution by enterprises (ln)



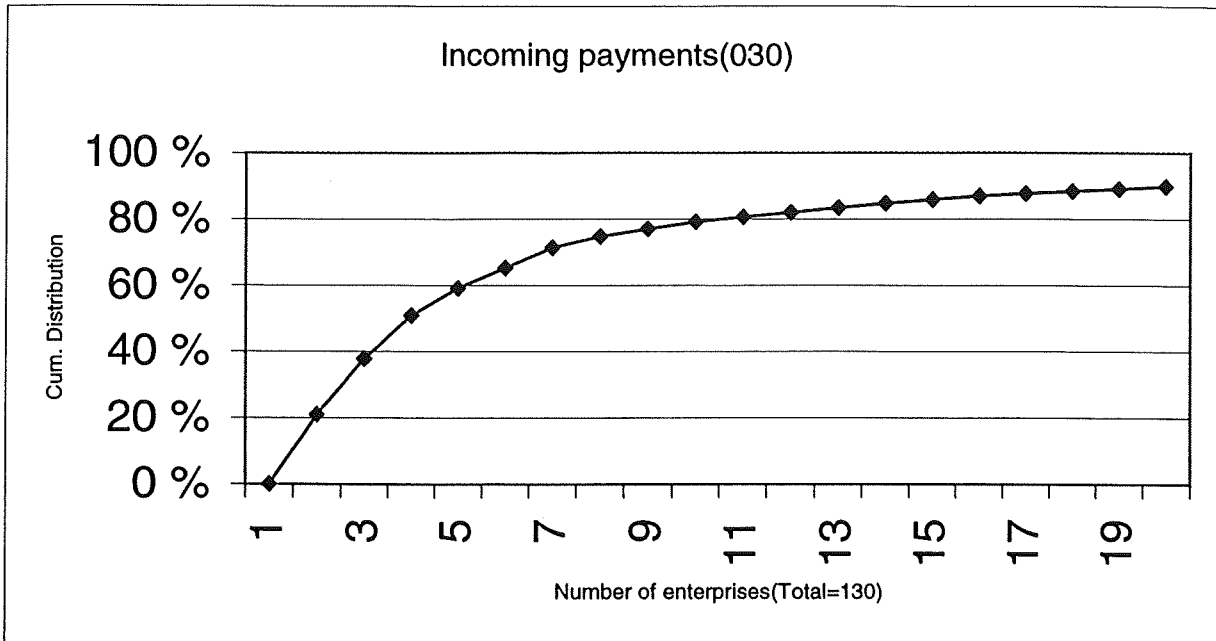
Overhead expenses of subsidiaries, associates and branches, 1996



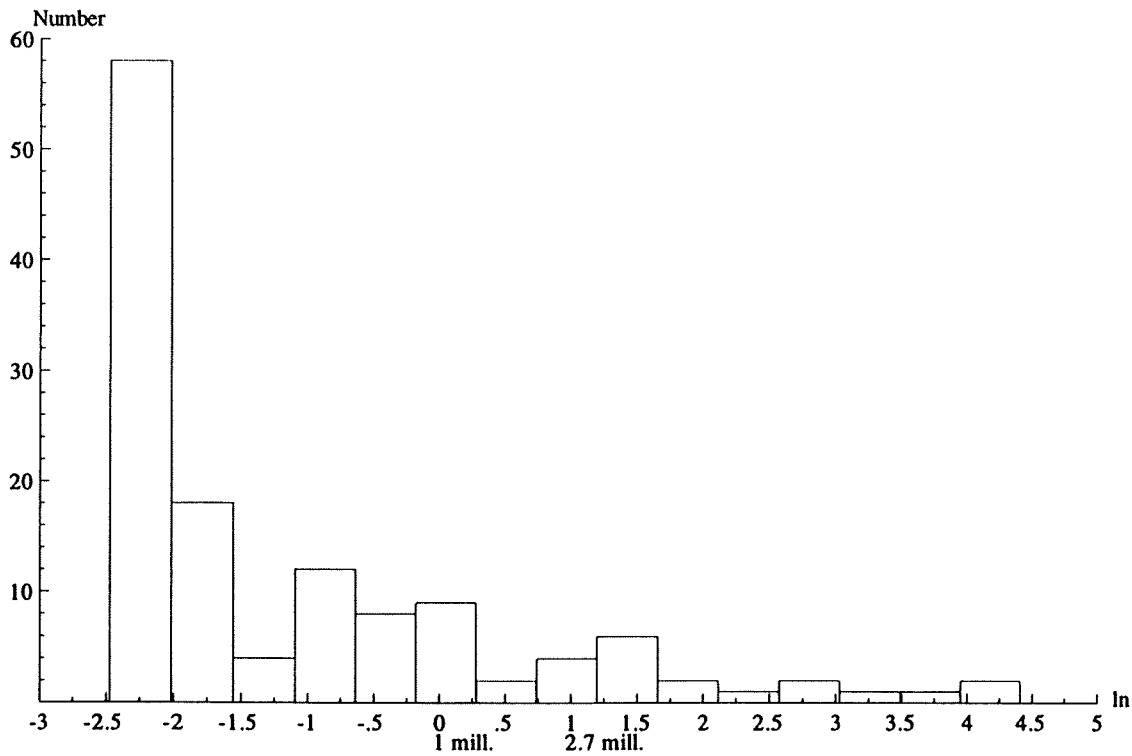
Classified frequency distribution by enterprises (ln)



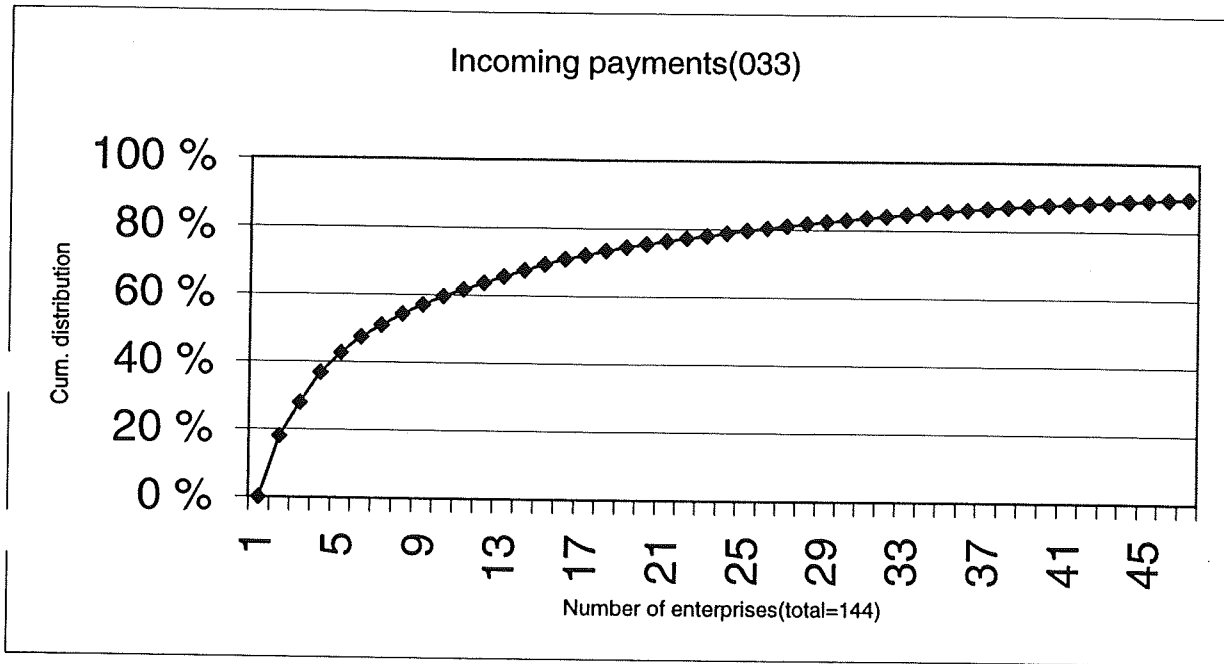
Patents, licences, royalties and franchises, 1996



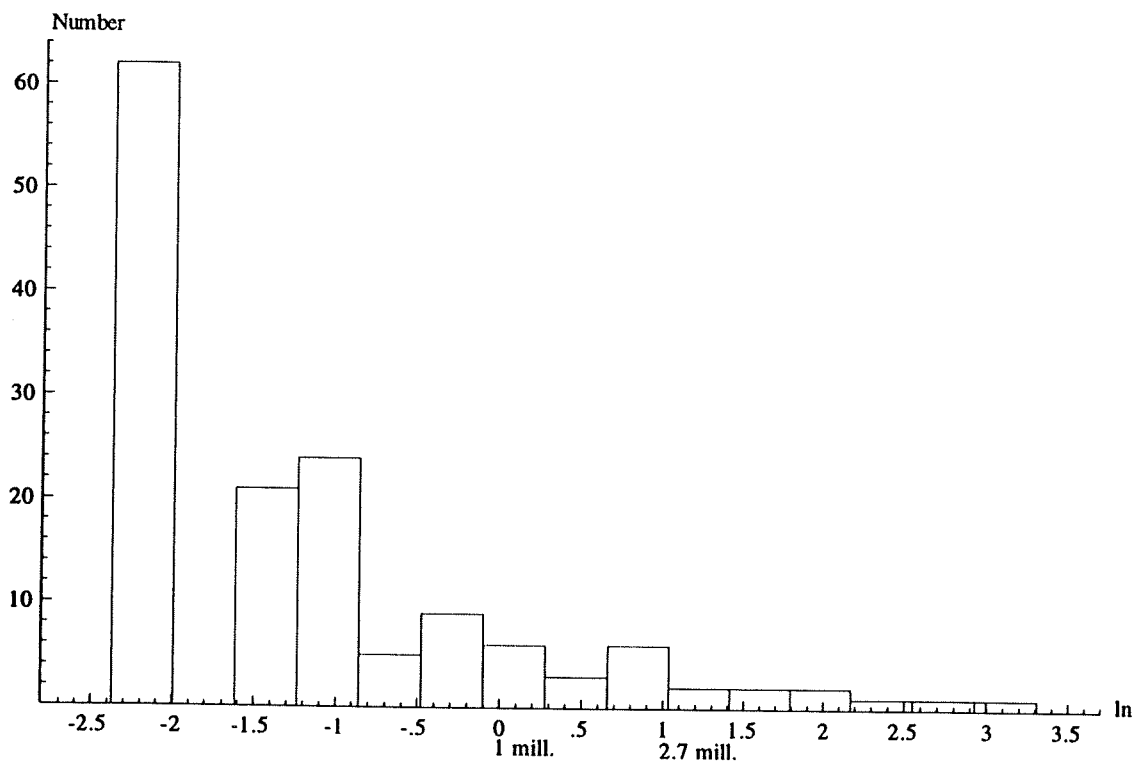
Classified frequency distribution by enterprises (ln)



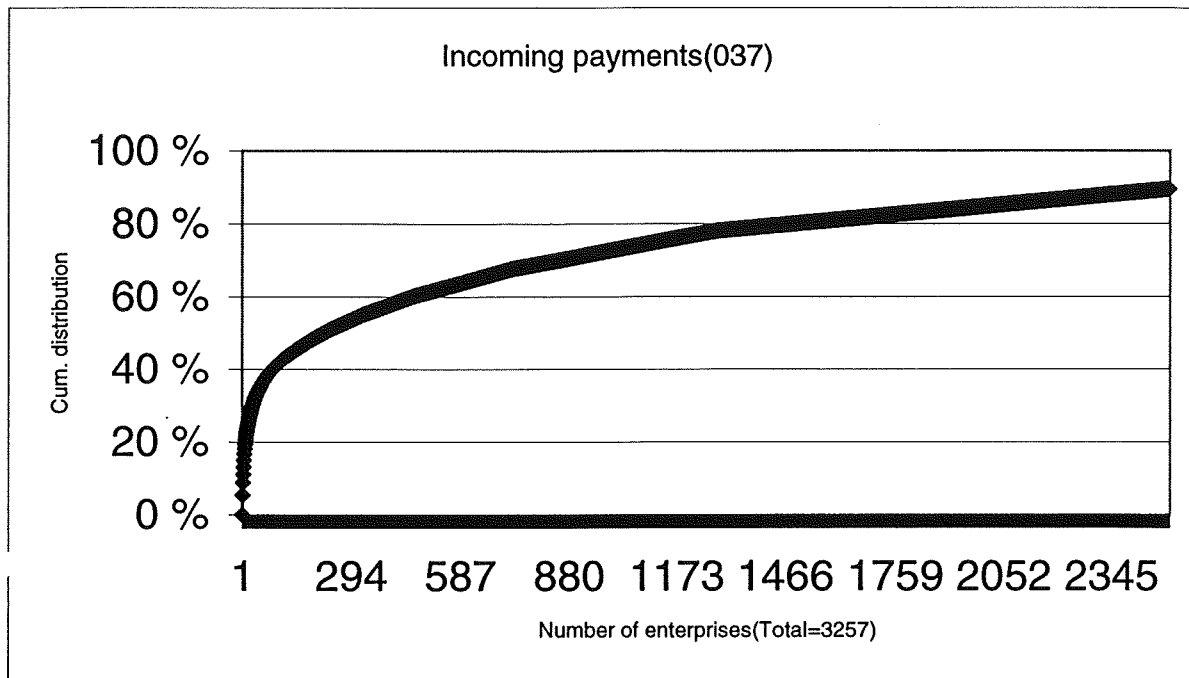
Leasing, 1996



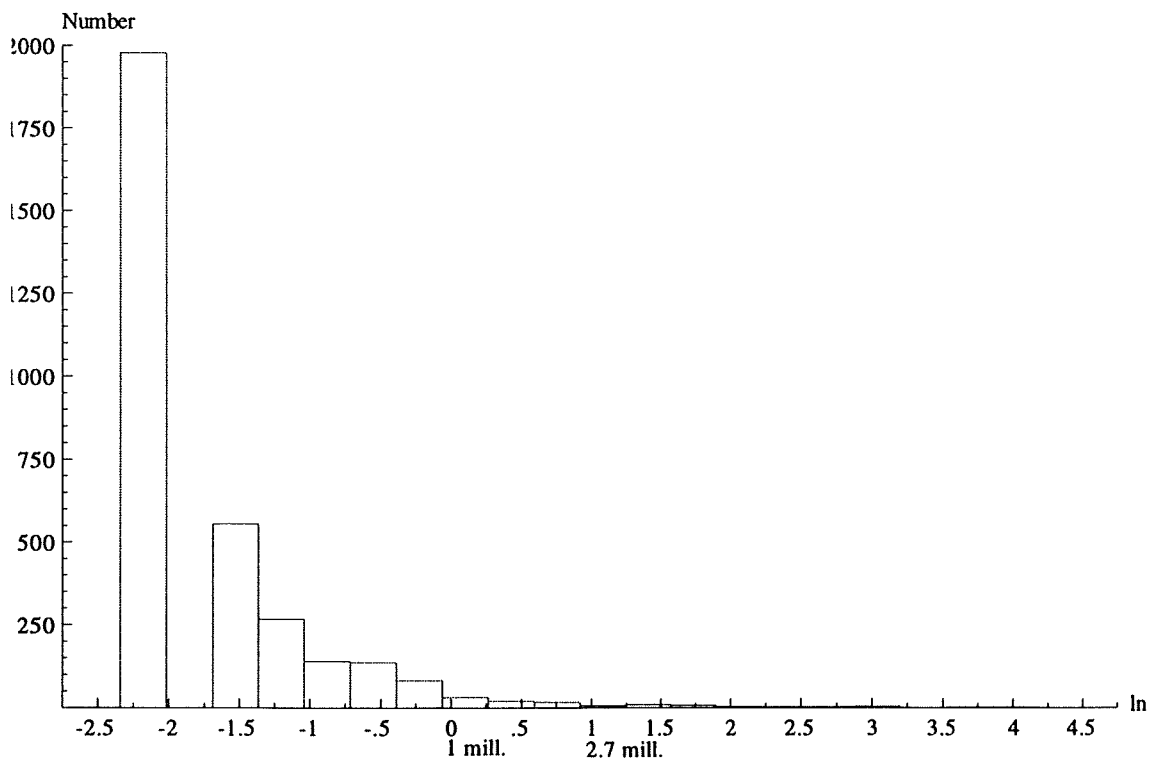
Classified frequency distribution by enterpises(ln)



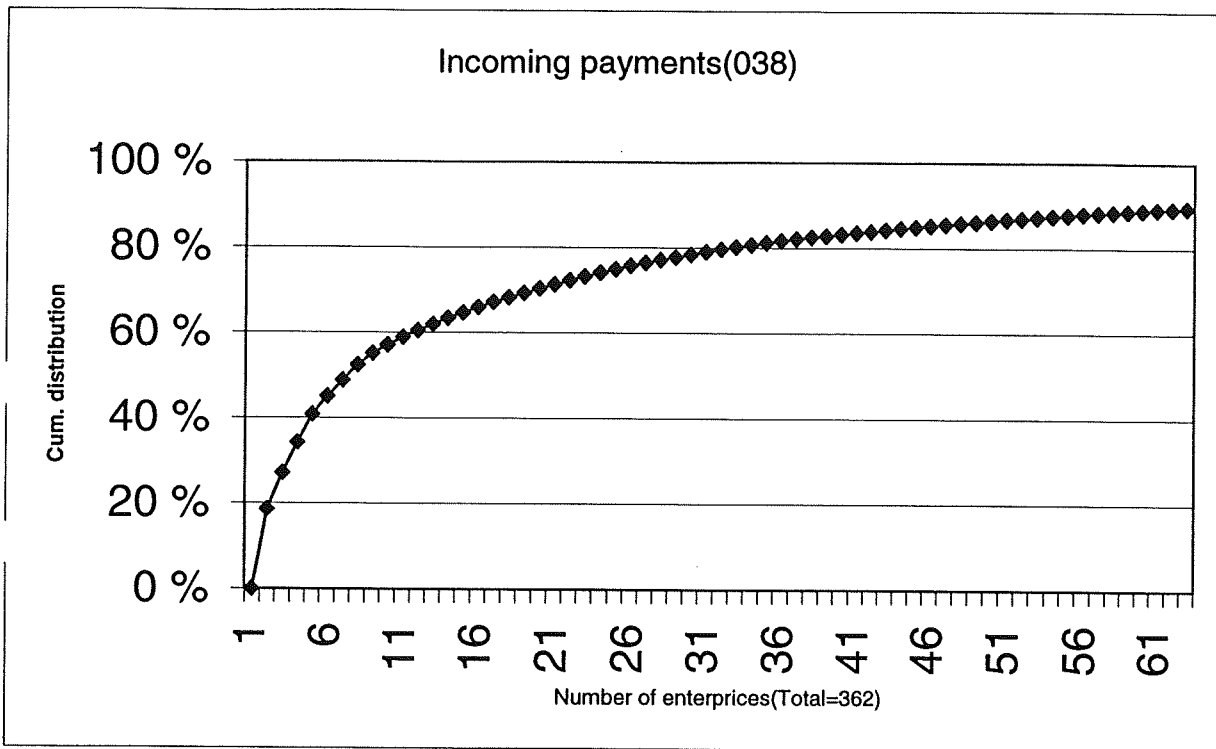
Private transfers, 1996



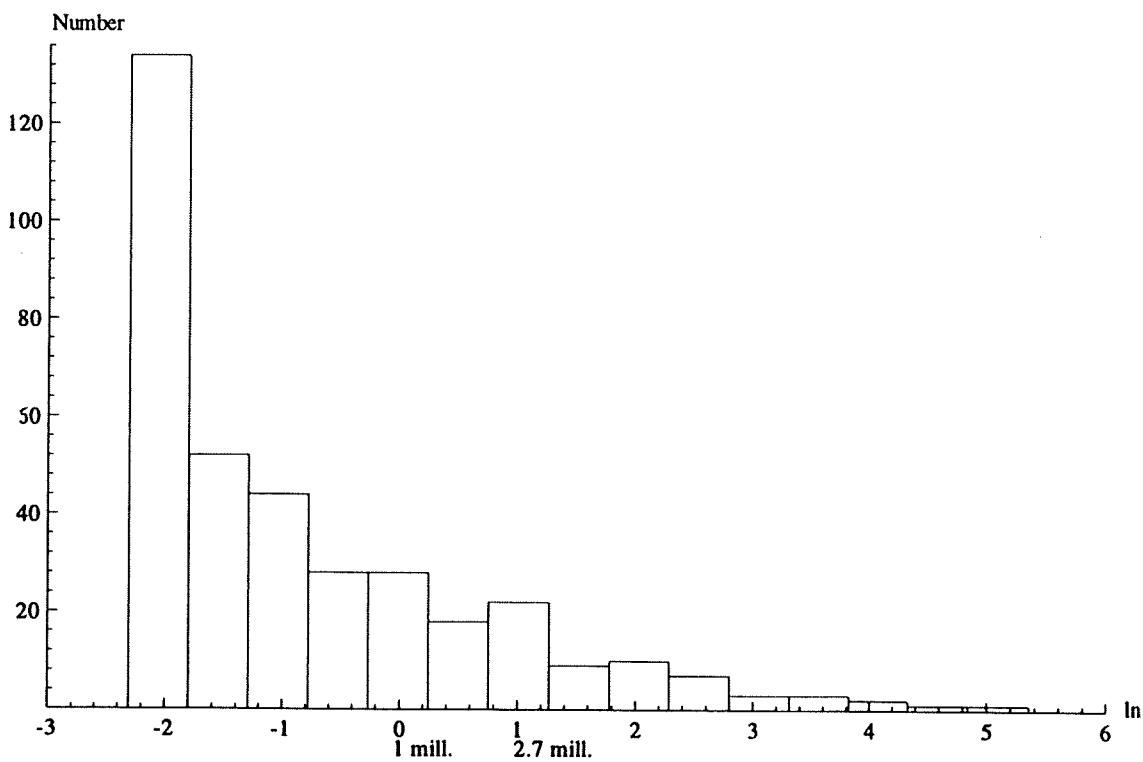
Classified frequency distribution by enterprises (ln)



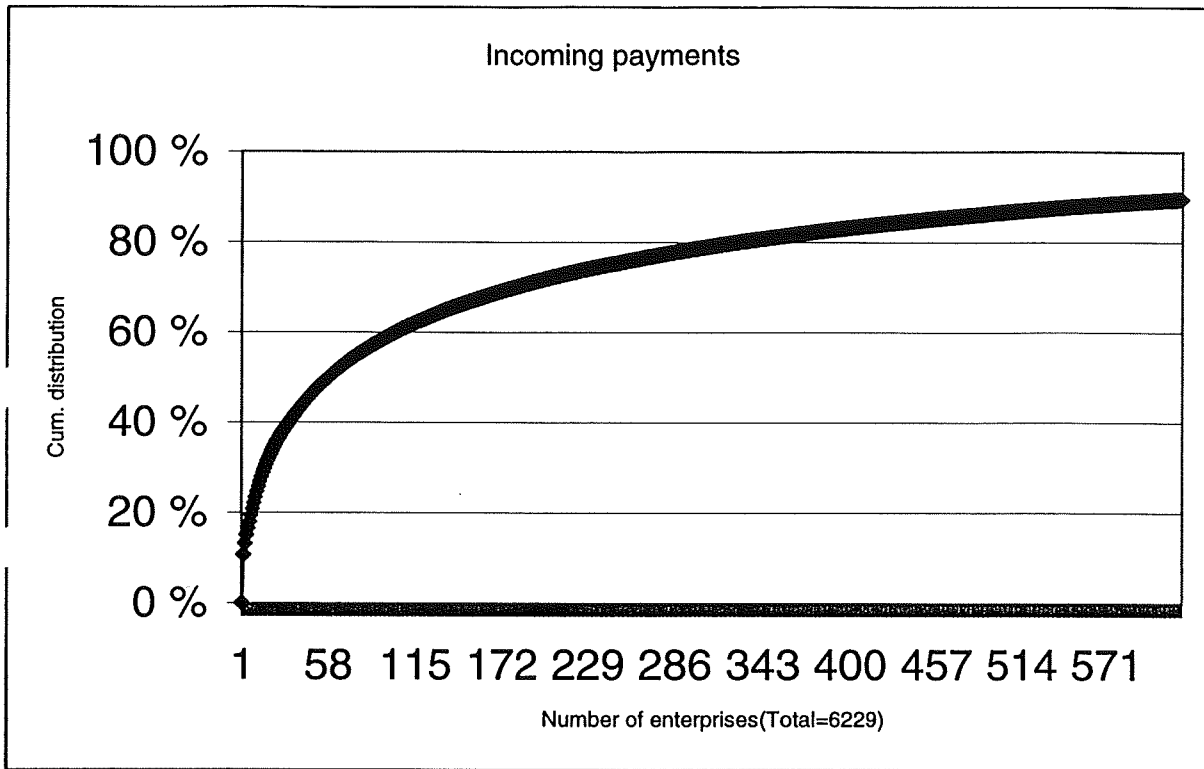
General government transfers, 1996



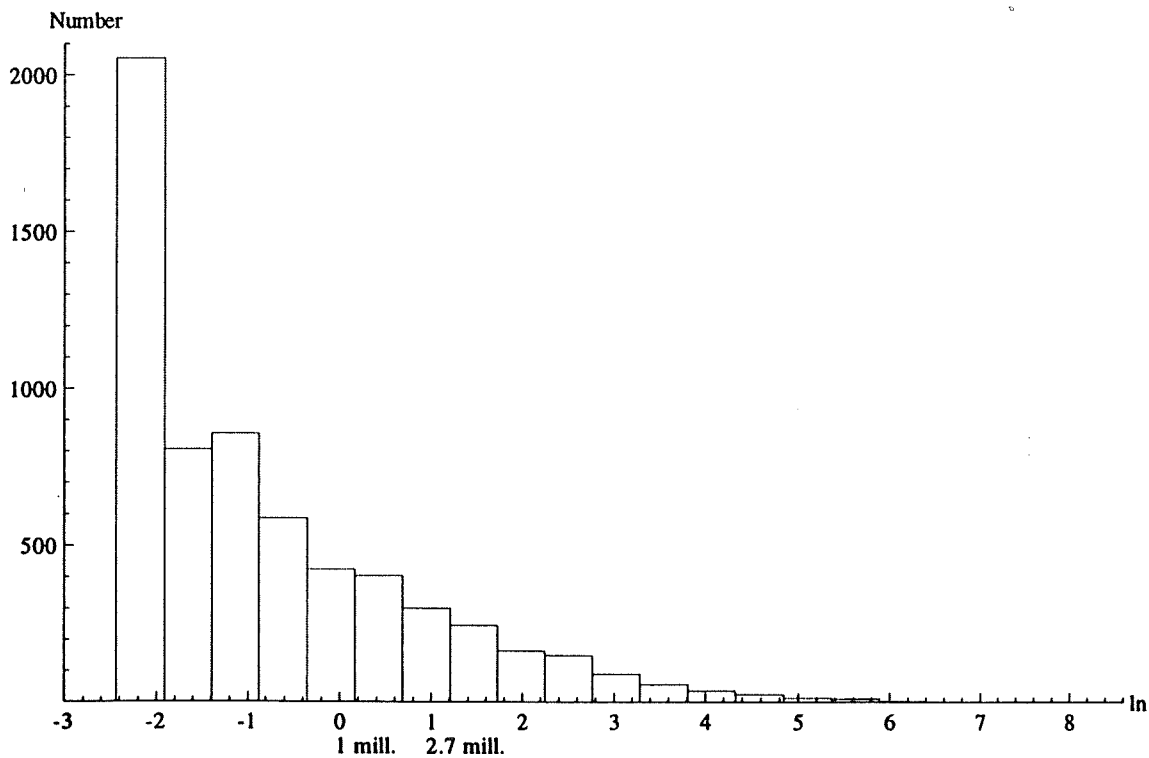
Classified frequency distribution by enterprises (ln)



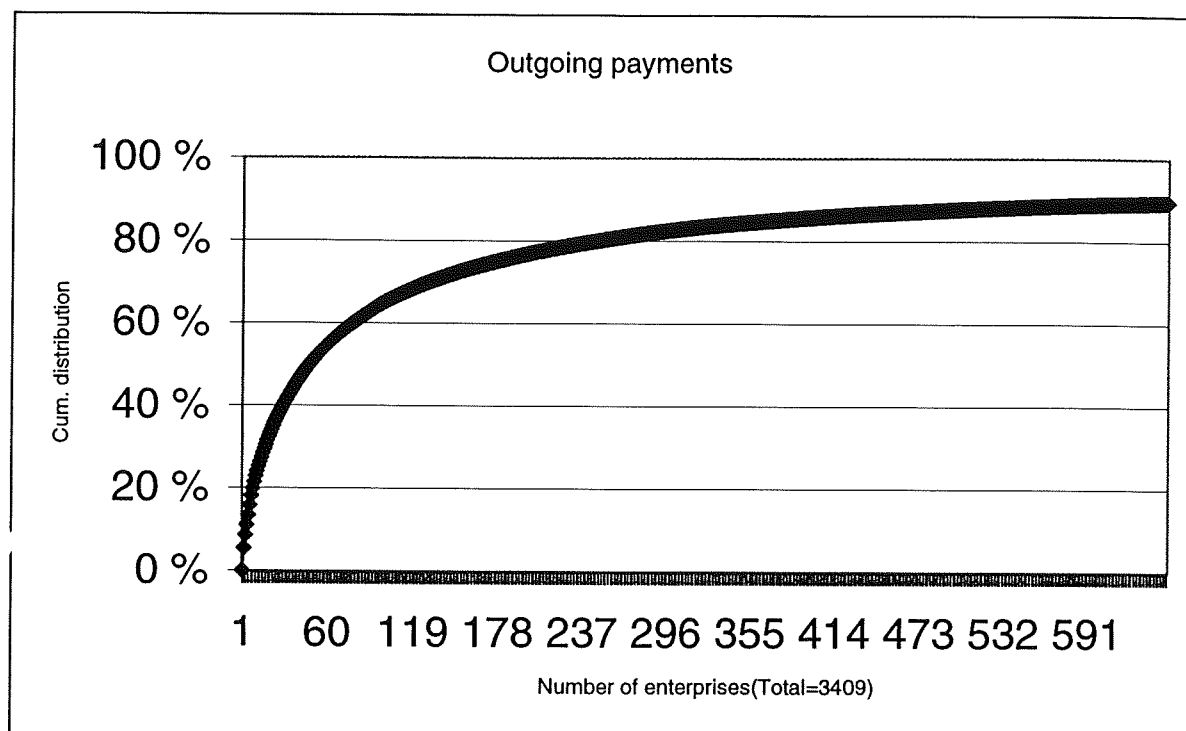
Services, 1996



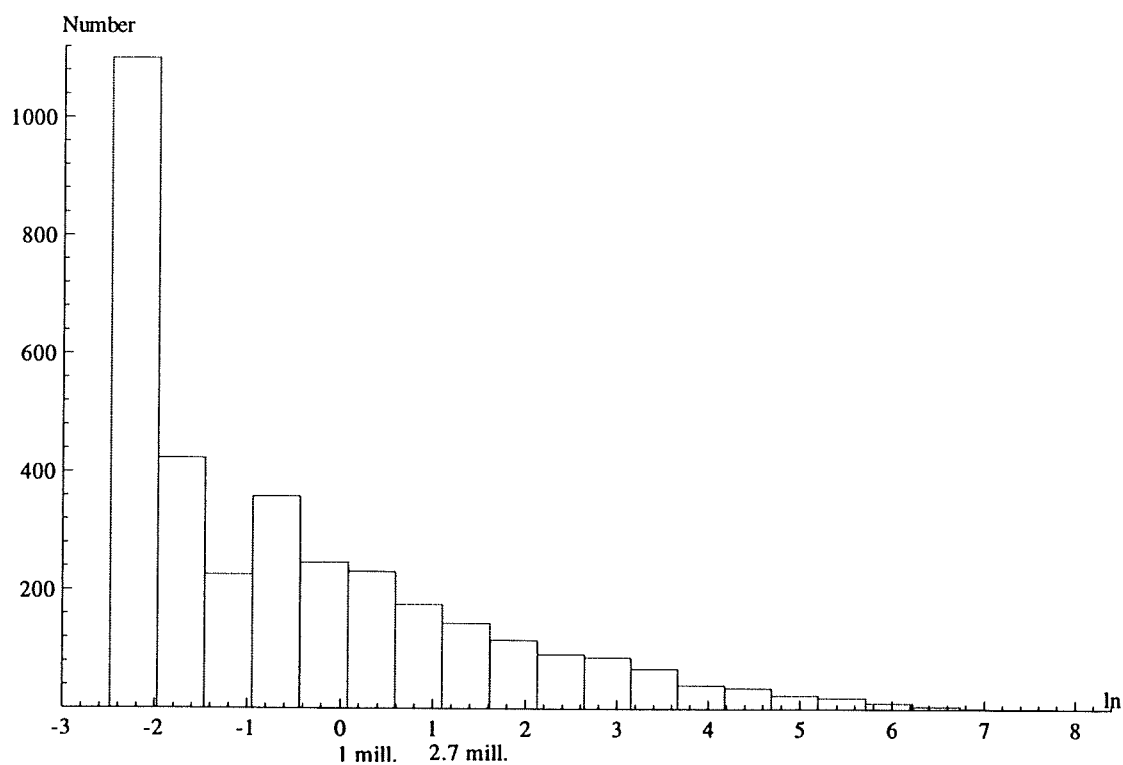
Classified frequency distribution by enterprises



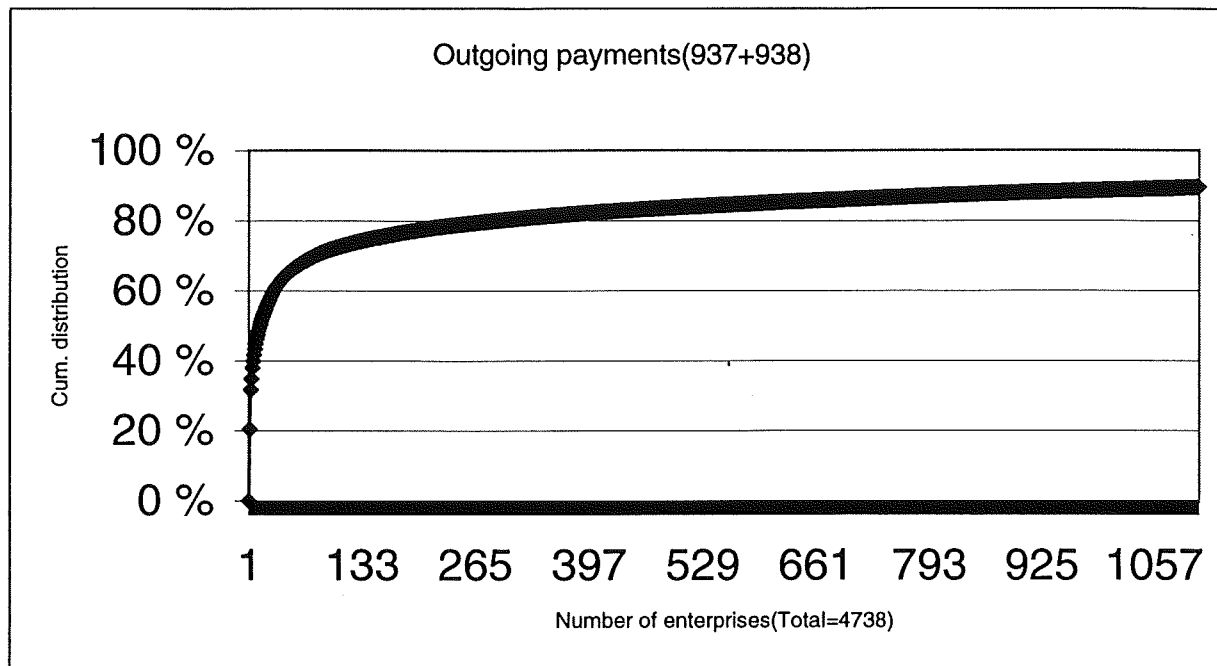
Services, 1996



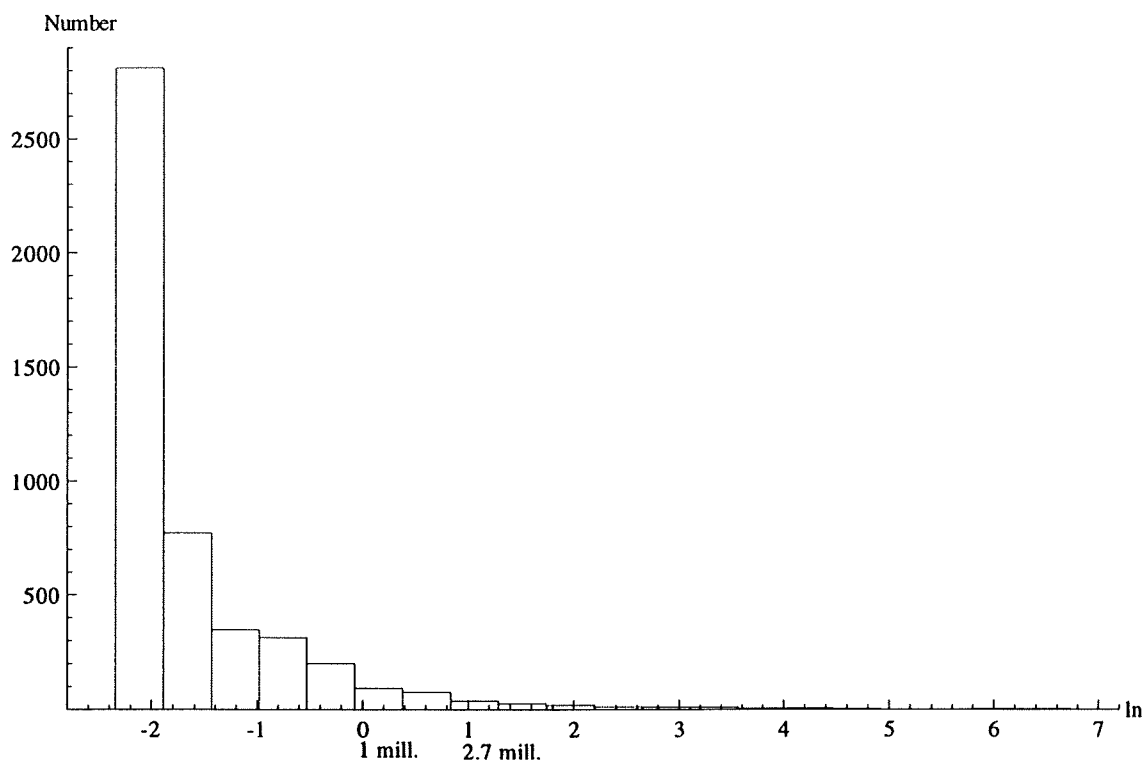
Classified frequency distribution by enterprises



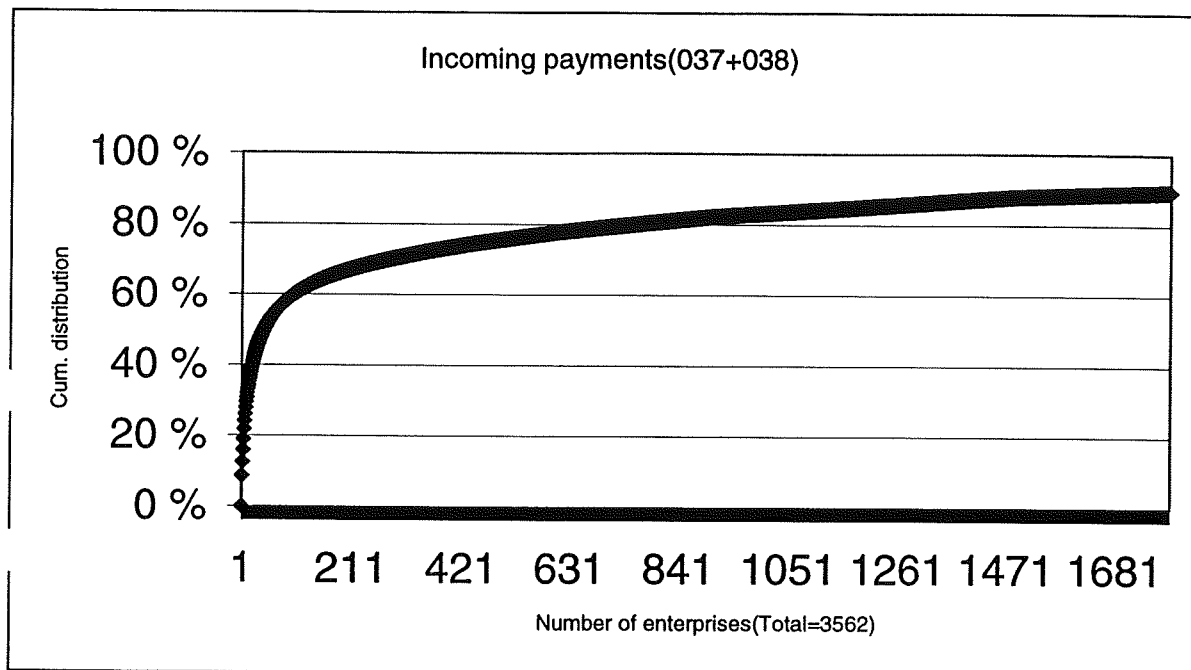
Transfers, 1996



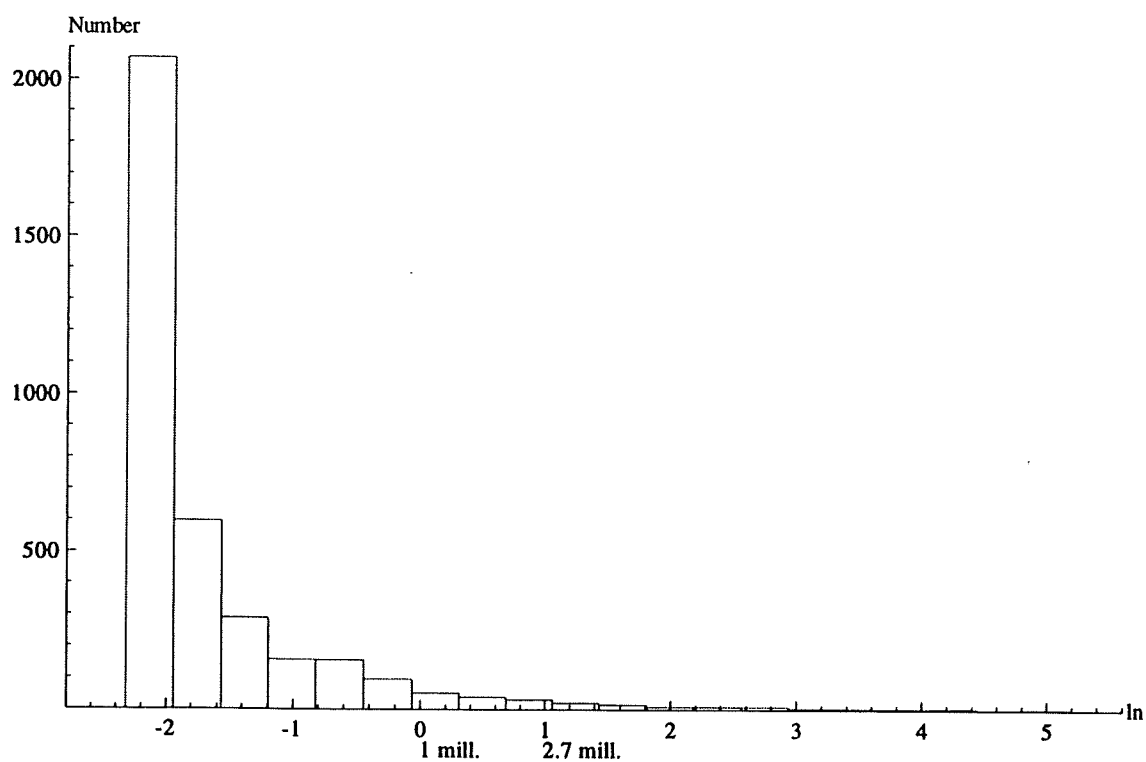
Classified frequency distribution by enterprises

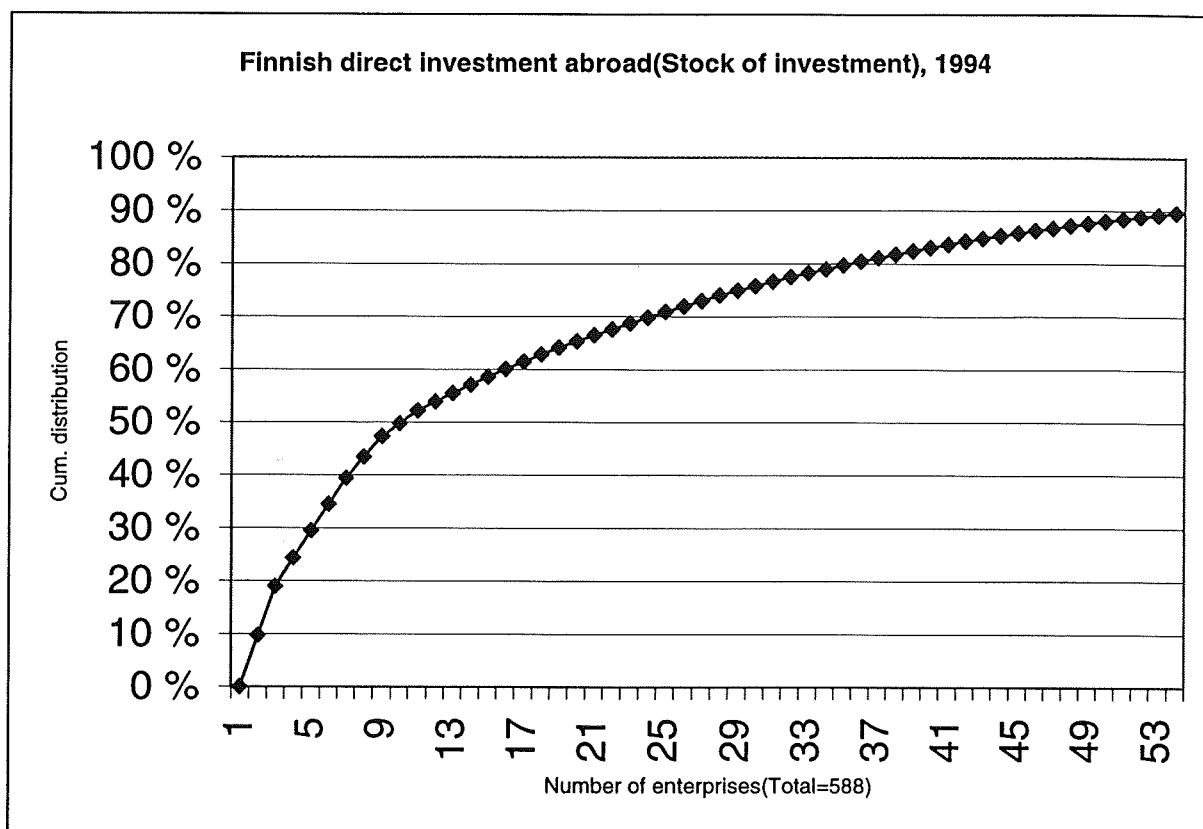


Transfers, 1996

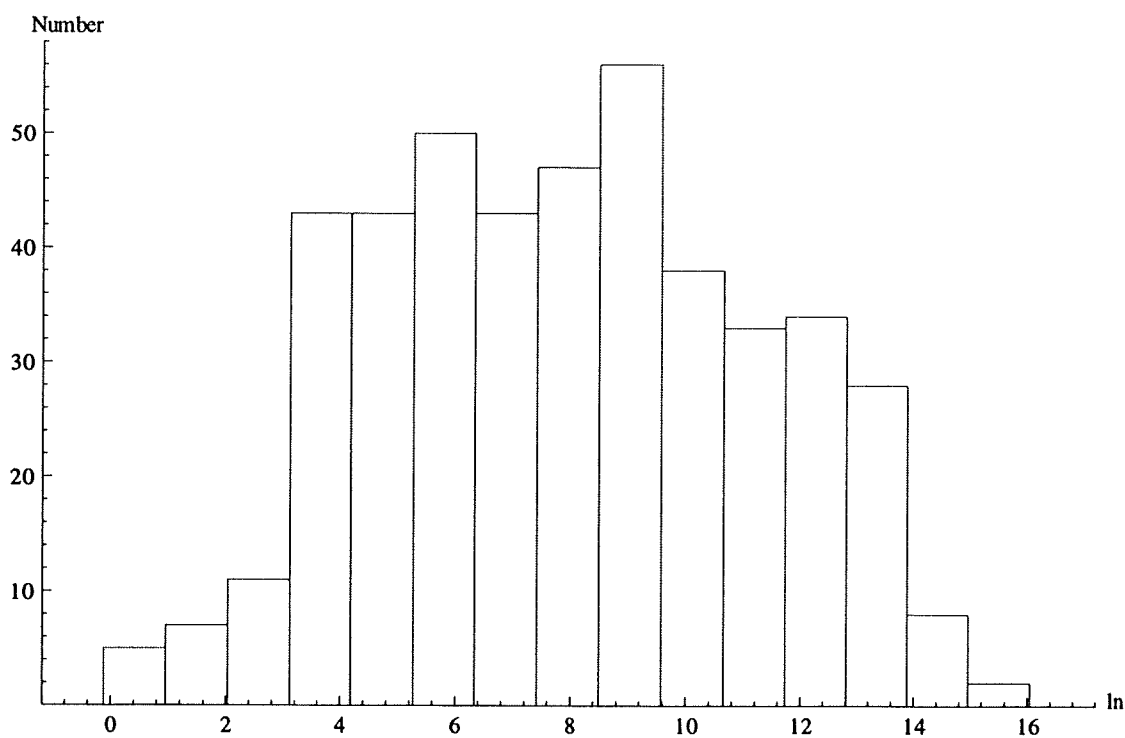


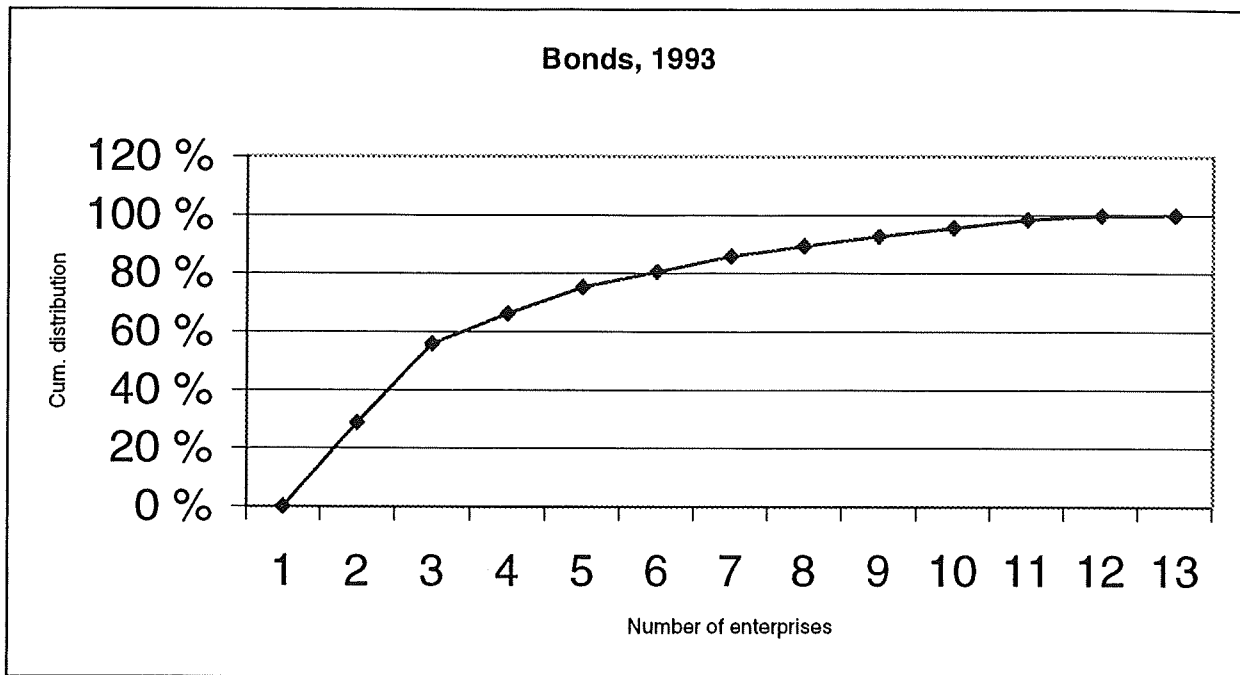
Classified frequency distribution by enterprises



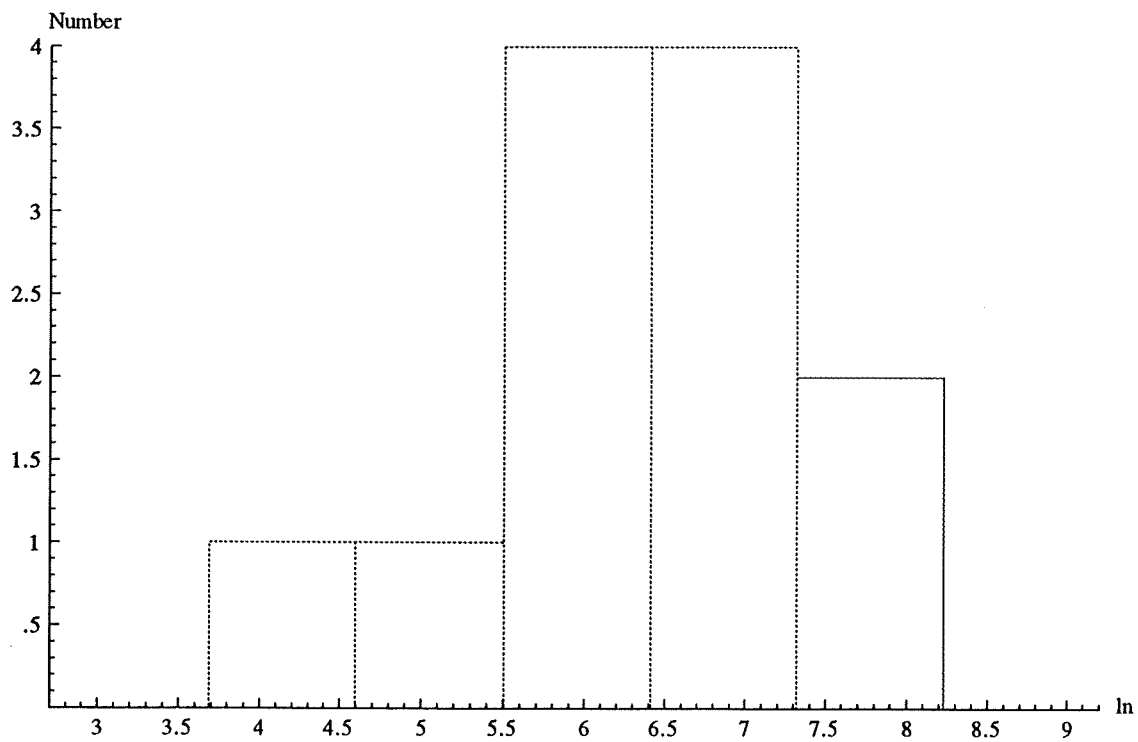


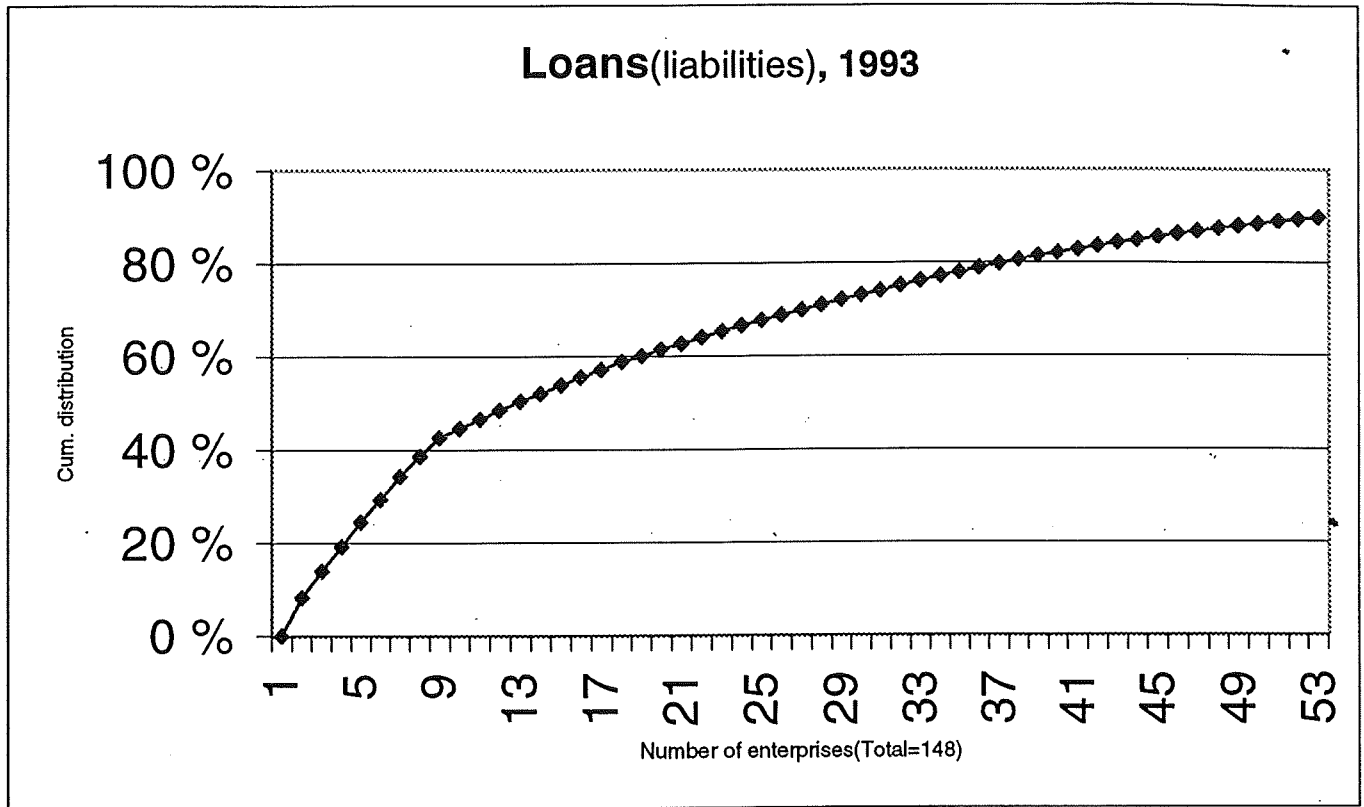
Classified frequency distribution by enterprises



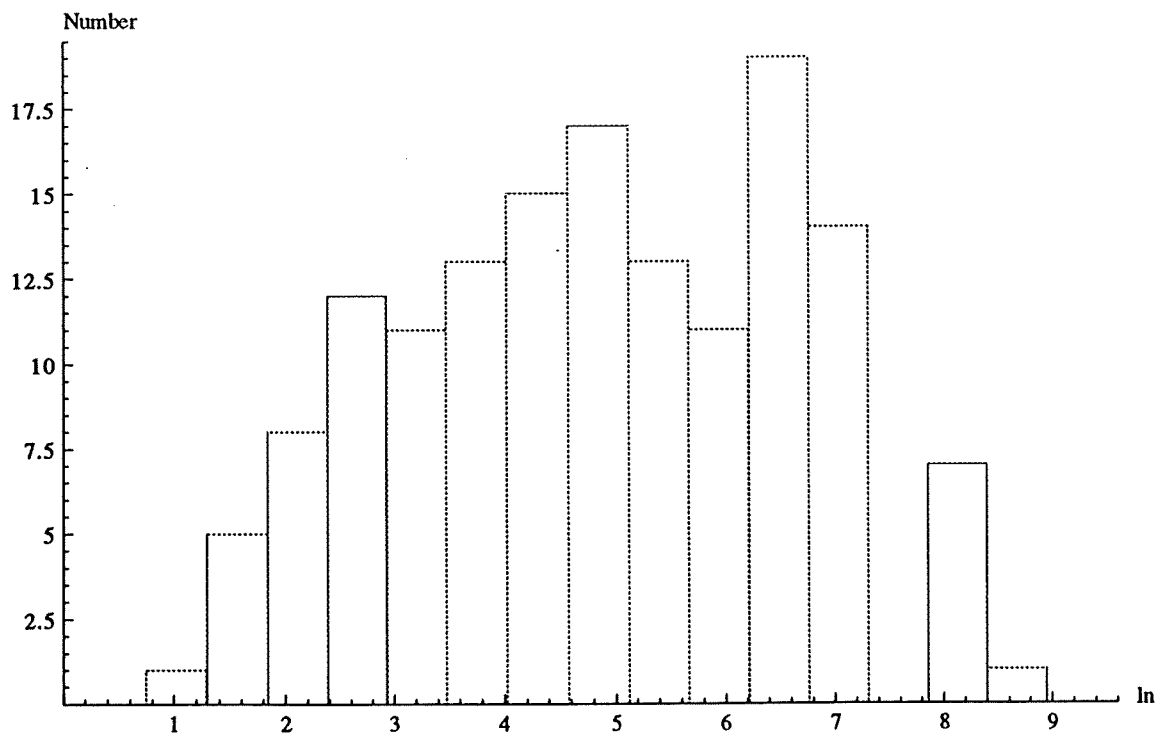


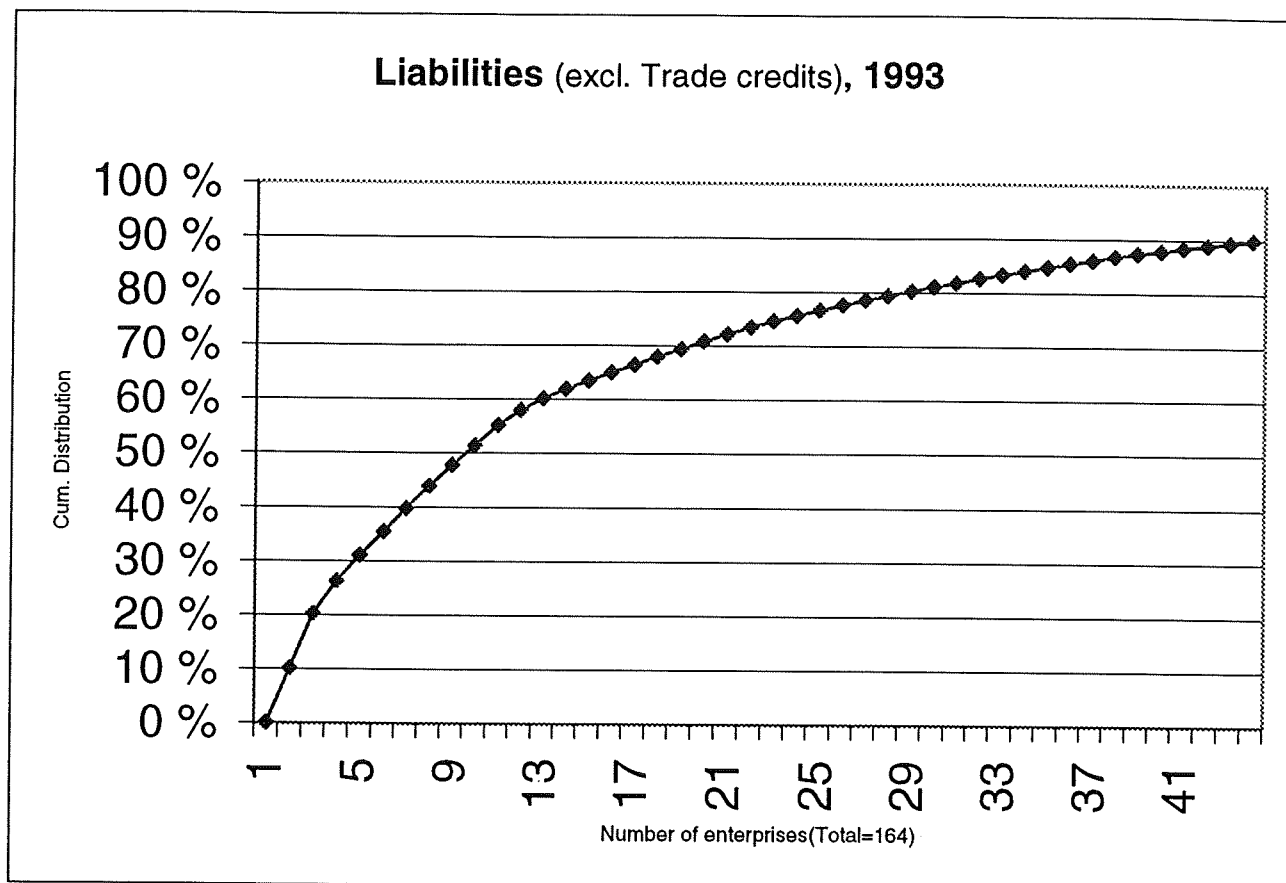
Classified frequency distribution by enterprises



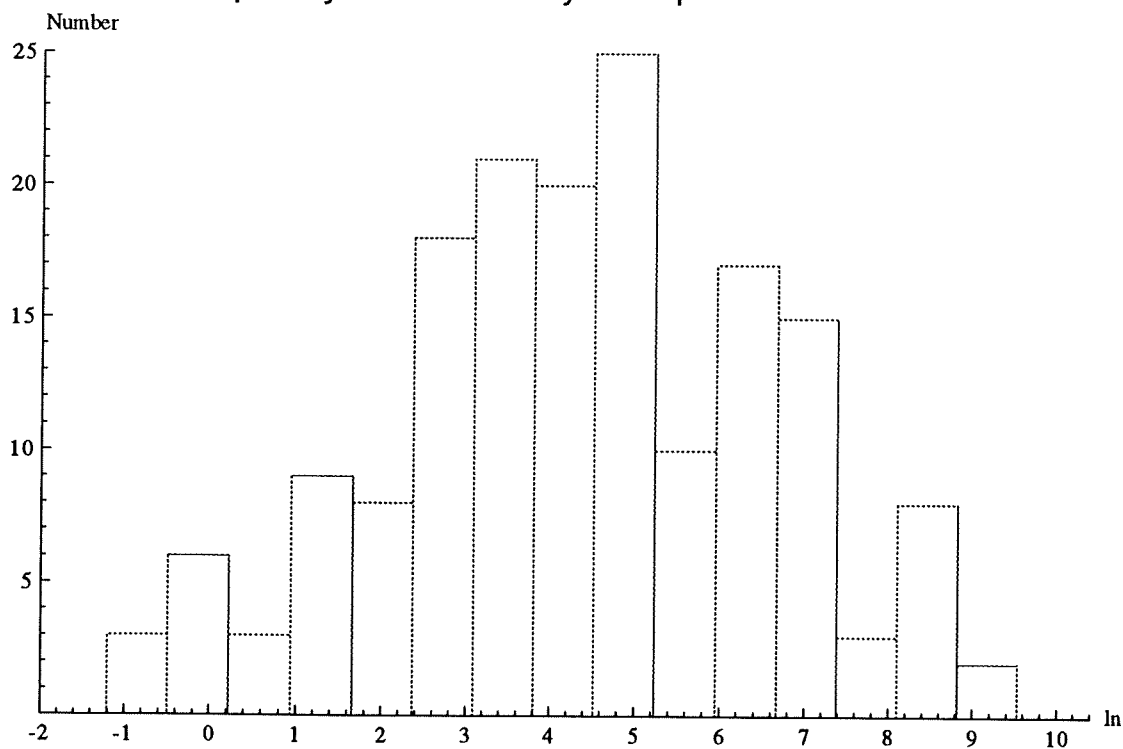


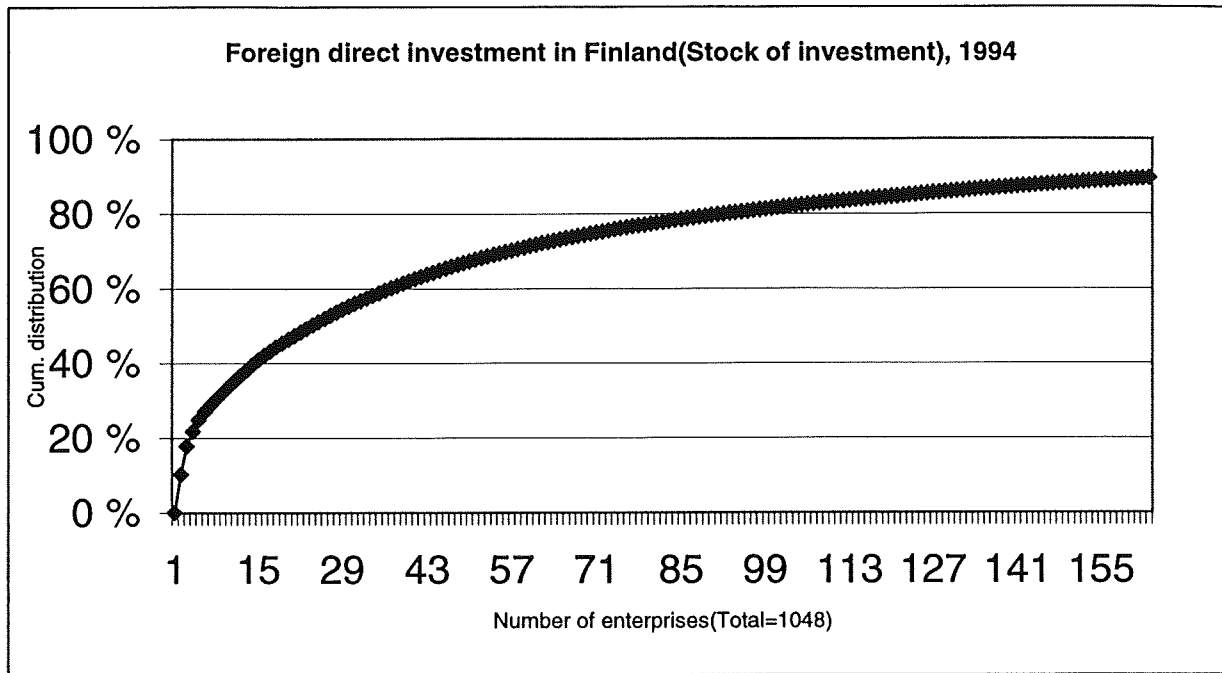
Classified frequency distribution by enterprises



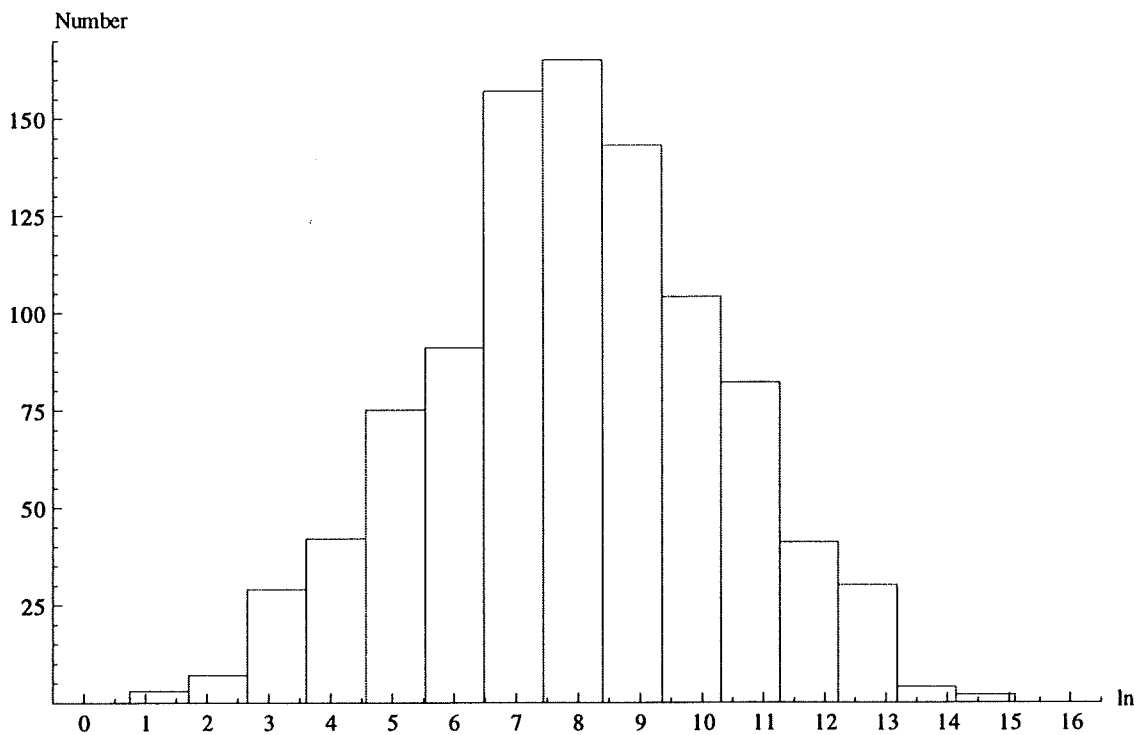


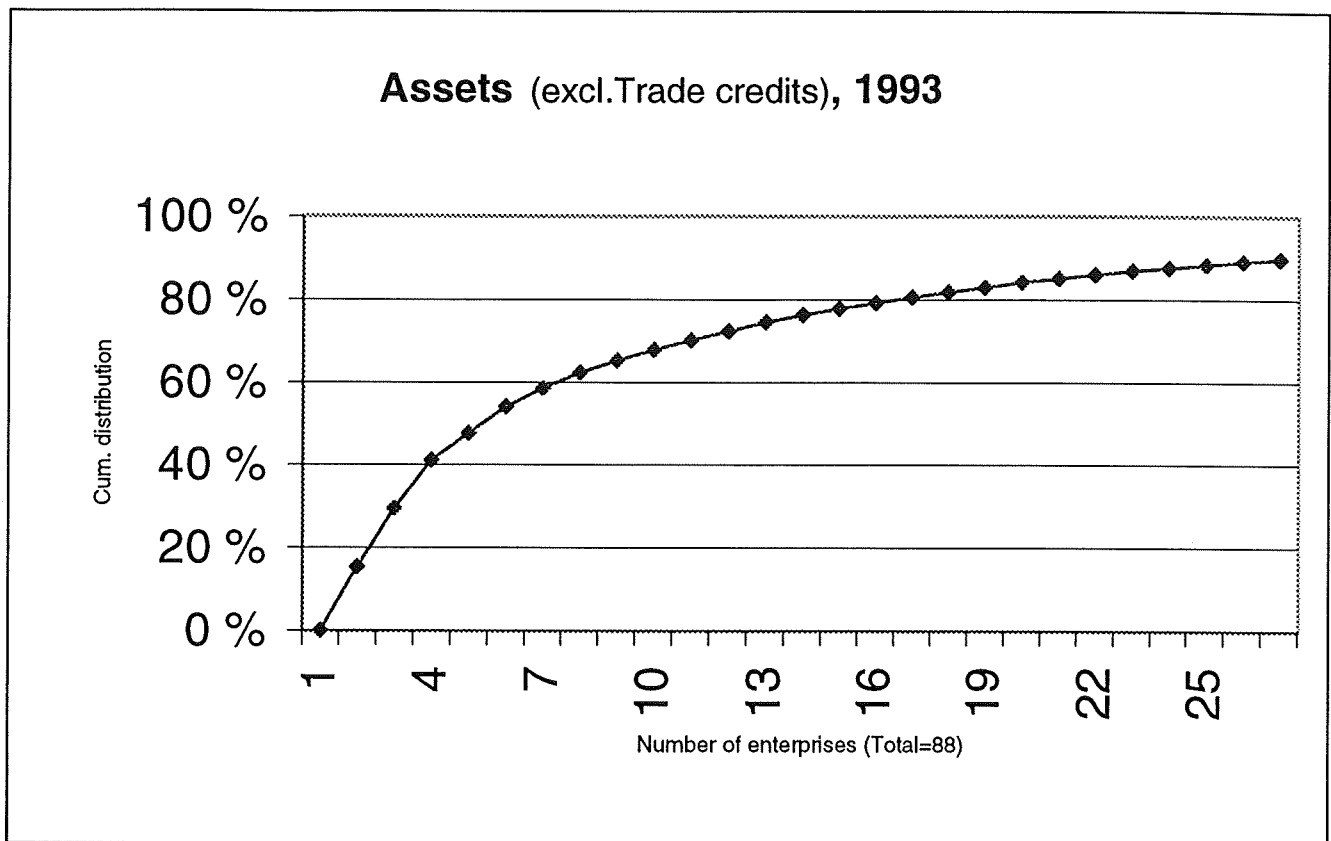
Classified frequency distribution by enterprises



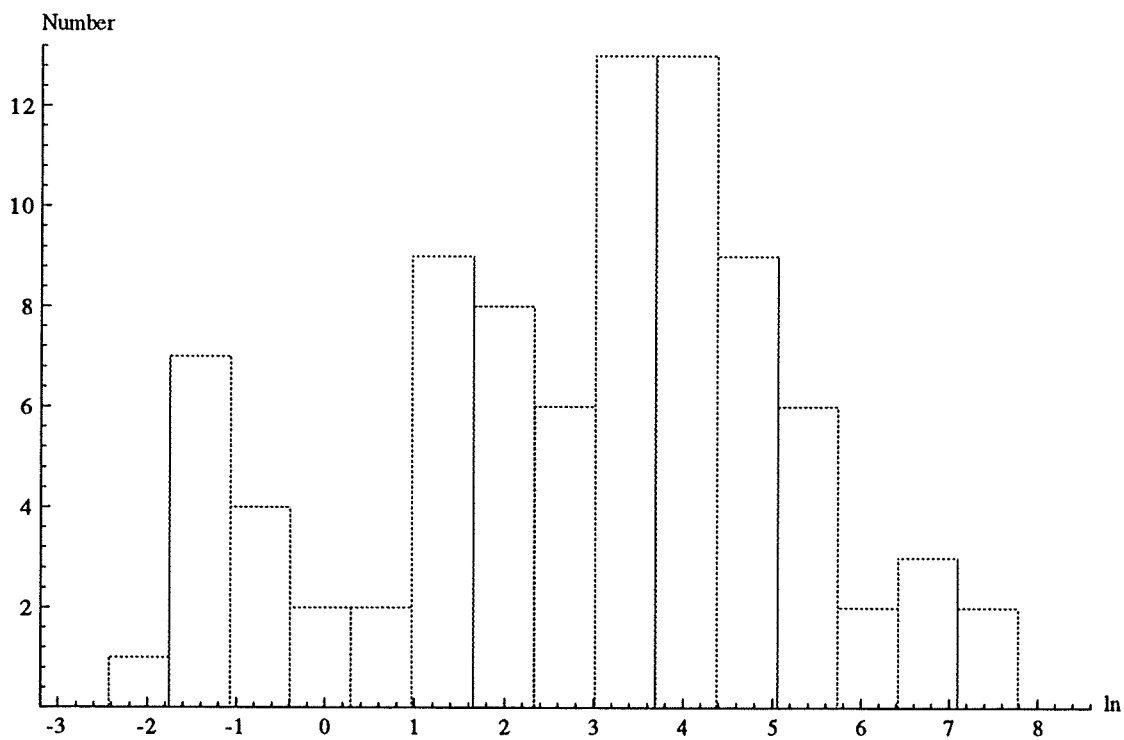


Classified frequency distribution by enterprises

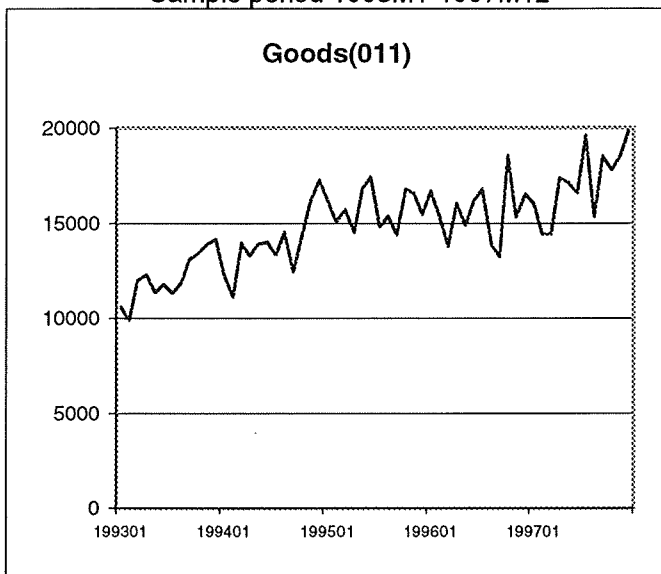




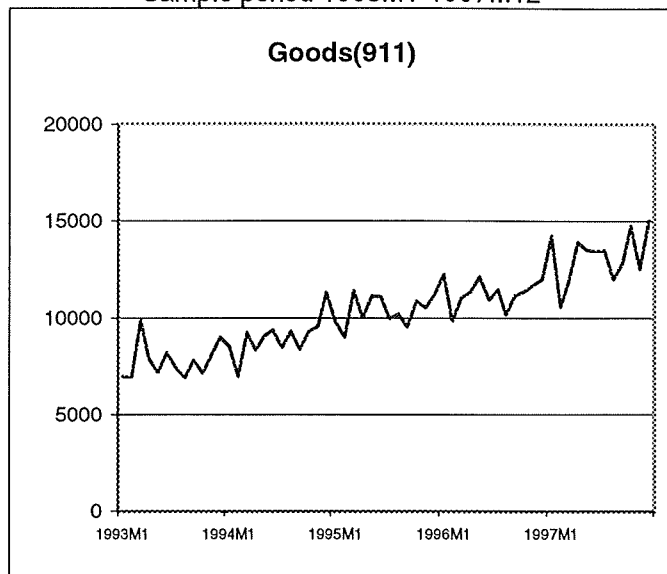
Classified frequency distribution by enterprises



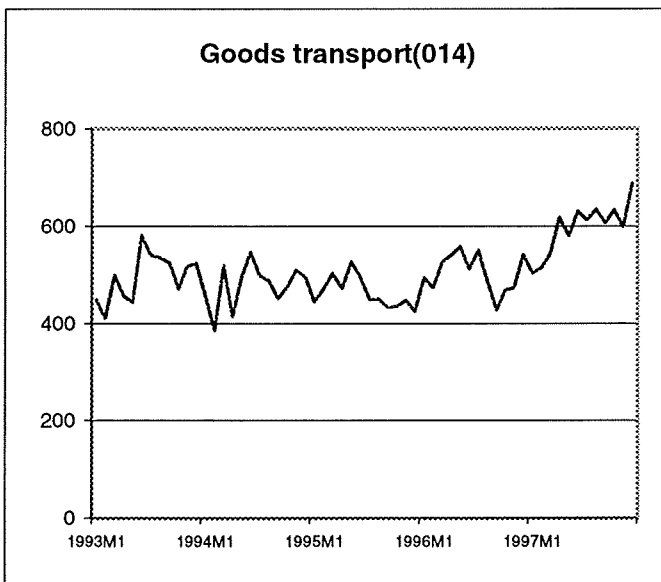
Incoming payments(Mill. FIM)
Sample period 1993M1-1997M12



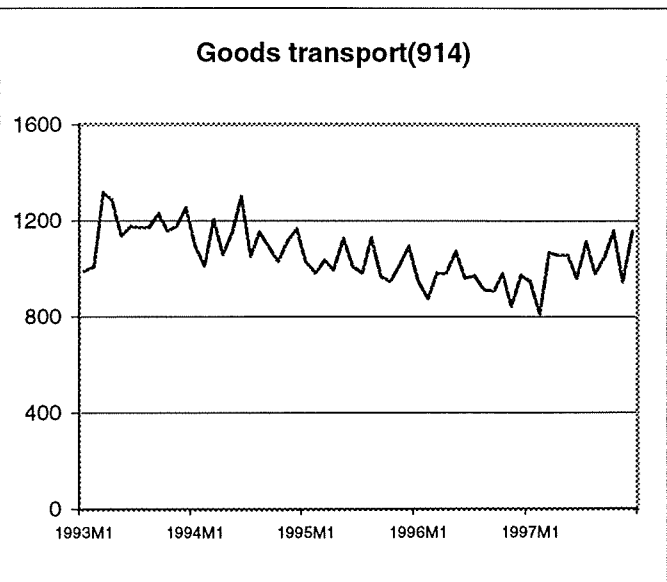
Outgoing payments(Mill. FIM)
Sample period 1993M1-1997M12



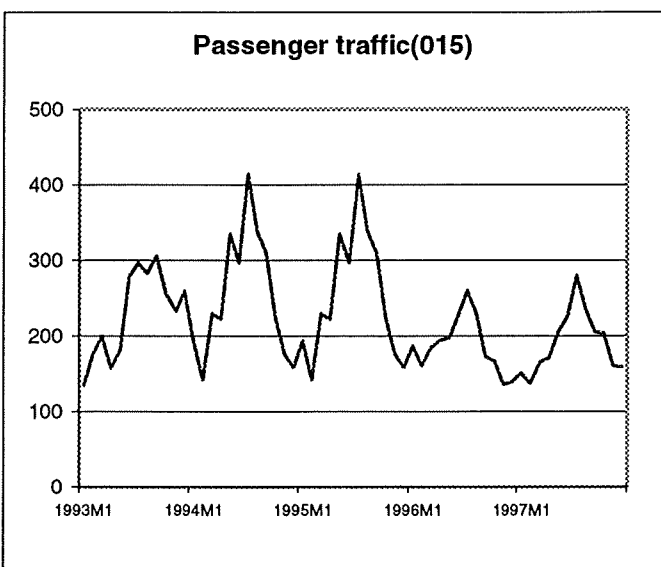
Goods transport(014)



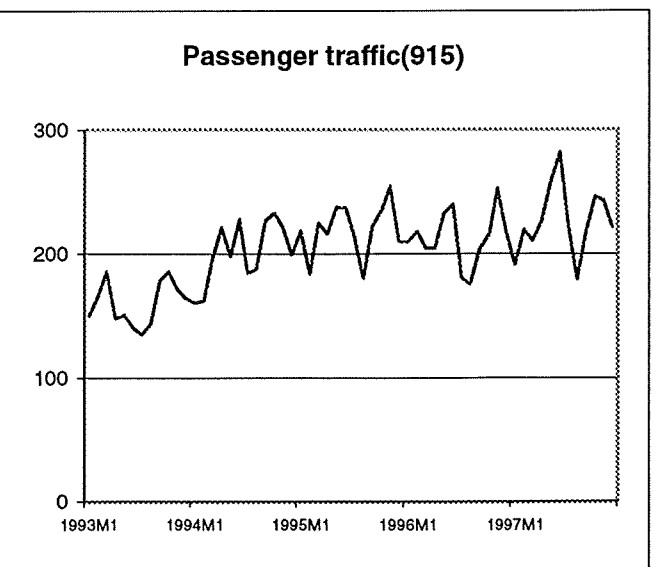
Goods transport(914)



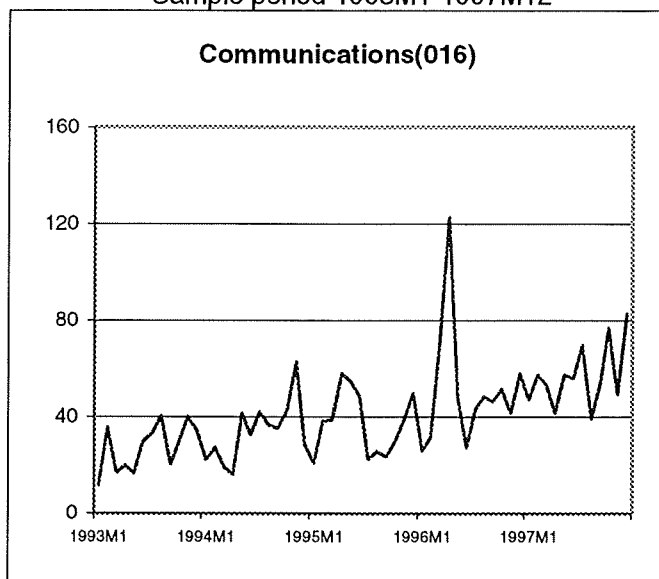
Passenger traffic(015)



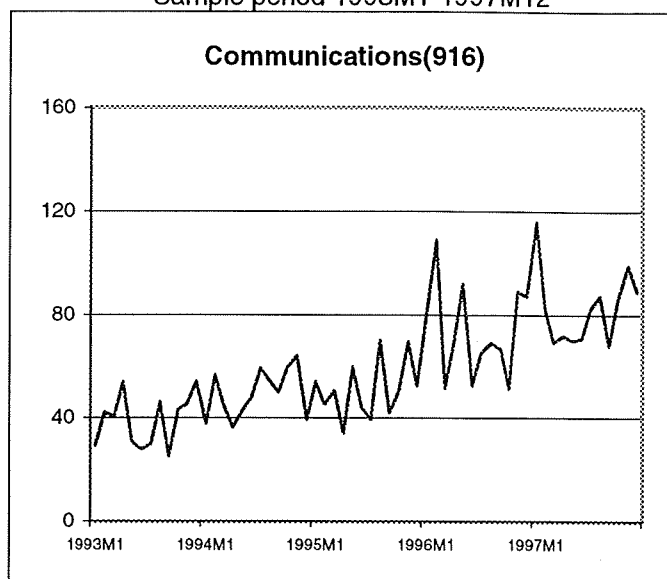
Passenger traffic(915)



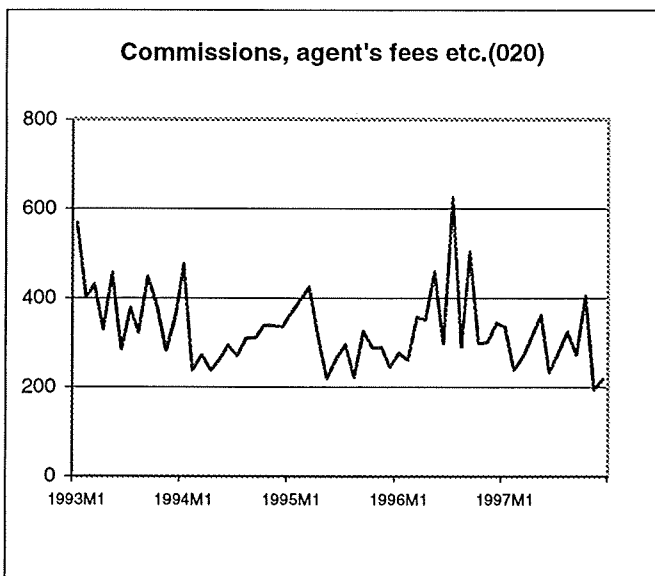
Incoming payments(Mill. FIM)
Sample period 1993M1-1997M12



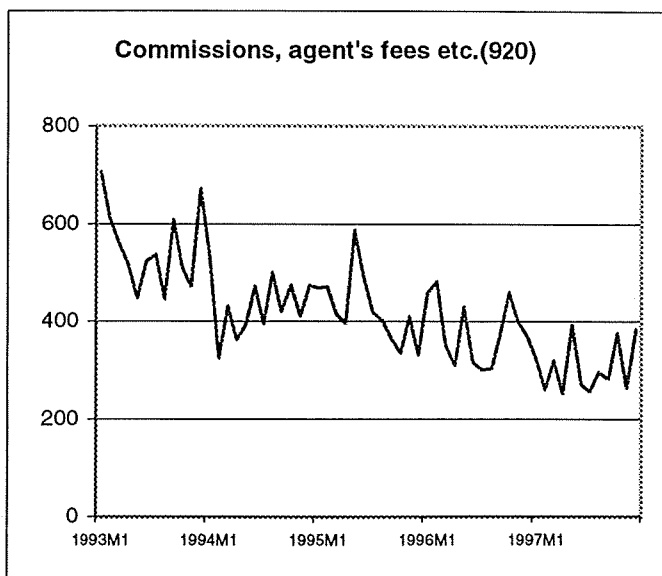
Outgoing payments(Mill. FIM)
Sample period 1993M1-1997M12



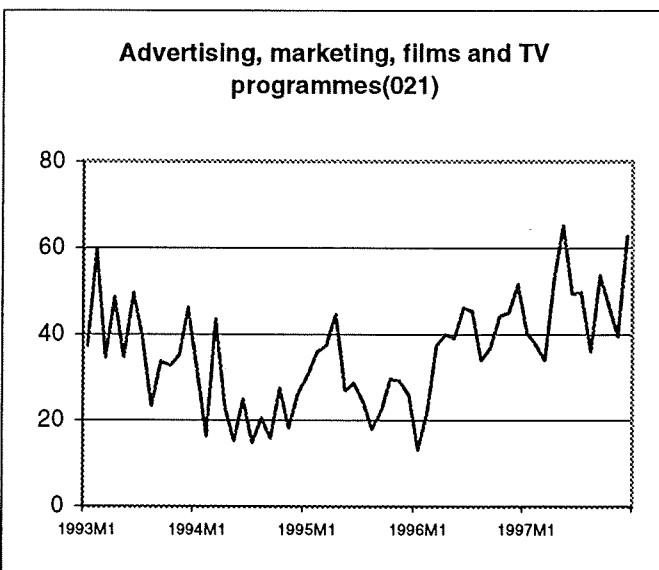
Commissions, agent's fees etc.(020)



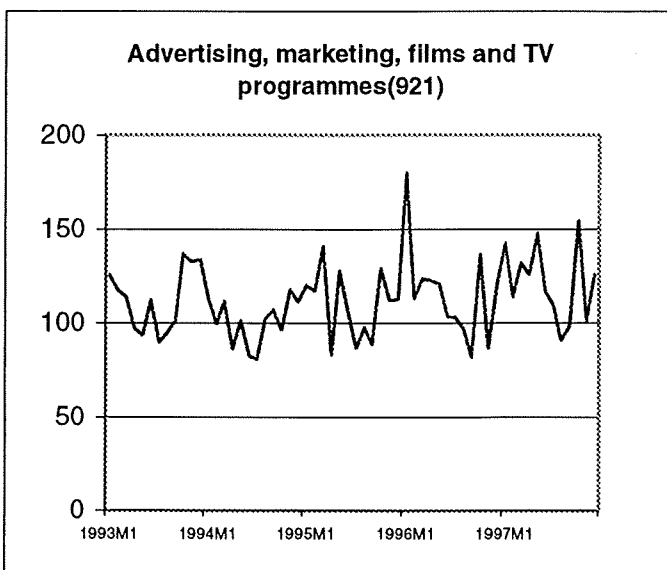
Commissions, agent's fees etc.(920)



Advertising, marketing, films and TV programmes(021)

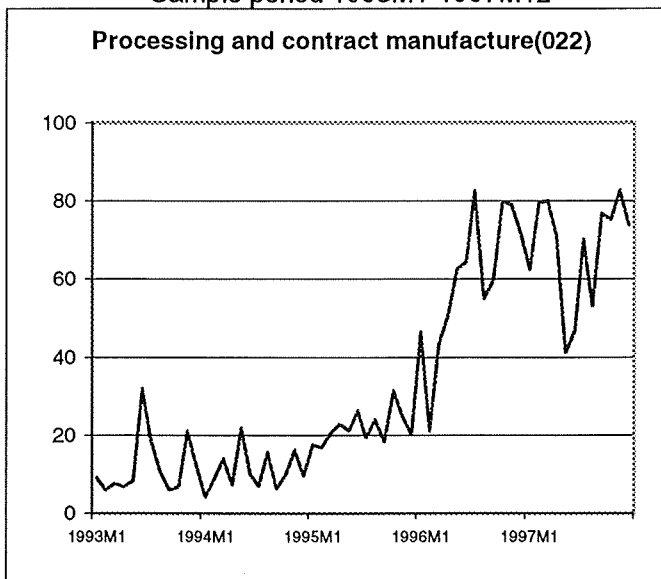


Advertising, marketing, films and TV programmes(921)



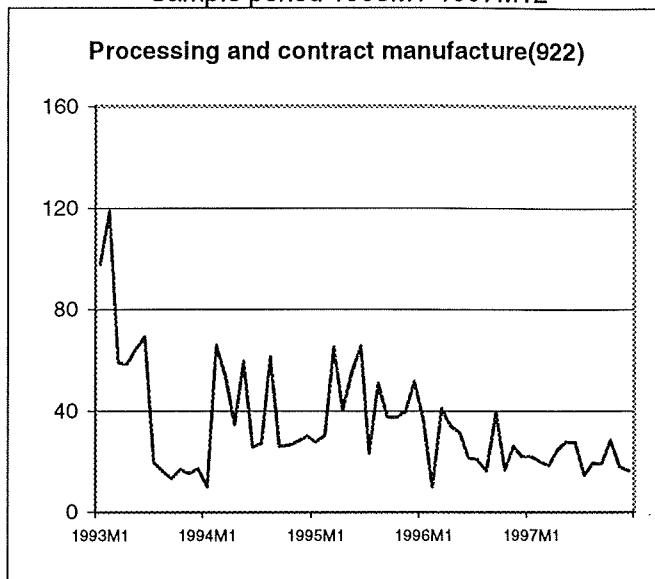
Incoming payments (Mill. FIM)

Sample period 1993M1-1997M12

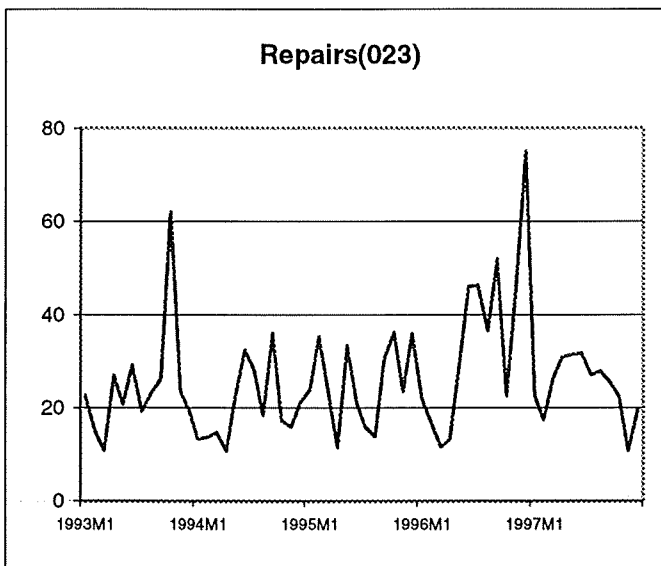


Outgoing payments (Mill. FIM)

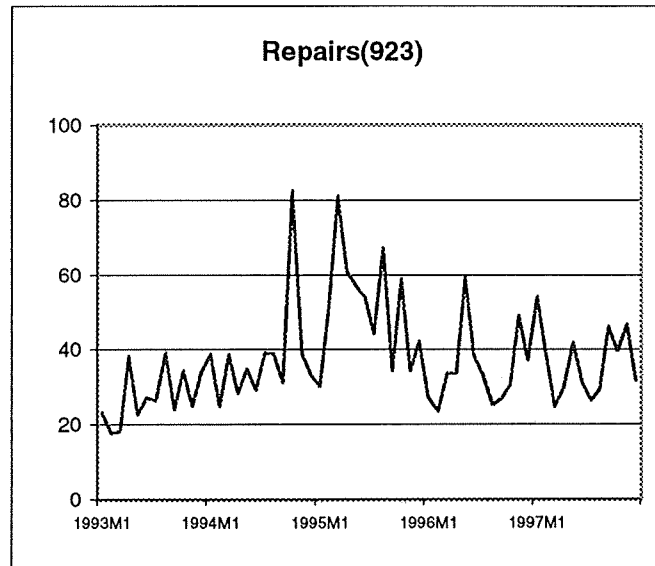
Sample period 1993M1-1997M12



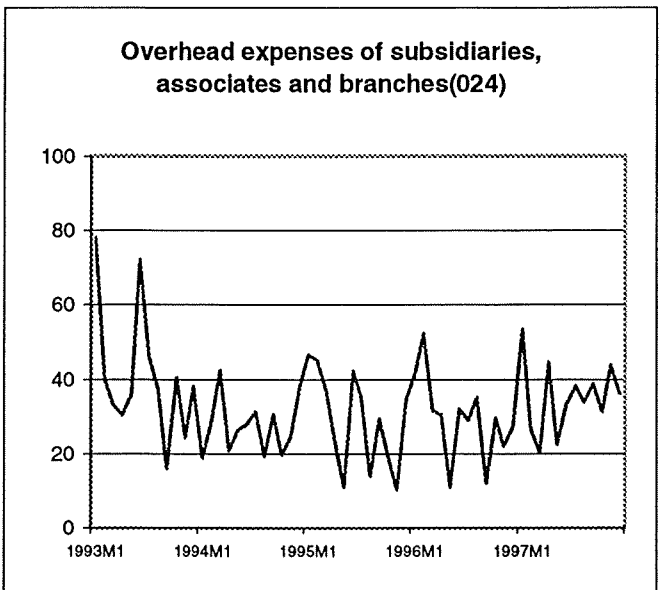
Repairs(023)



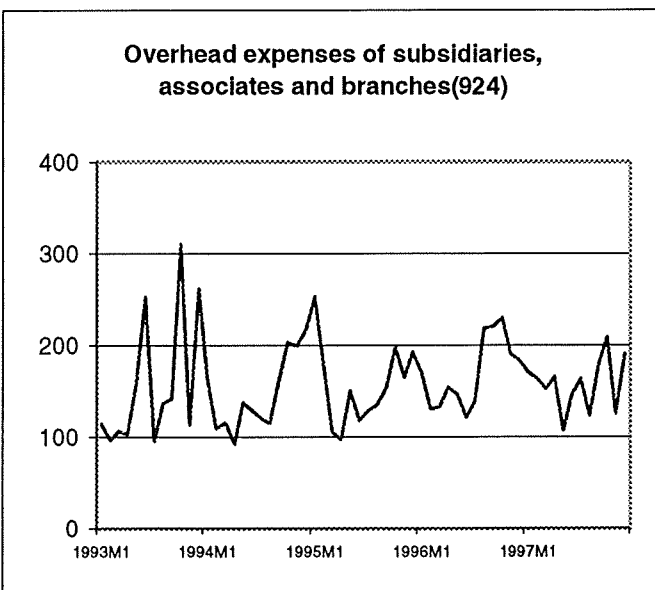
Repairs(923)



Overhead expenses of subsidiaries, associates and branches(024)

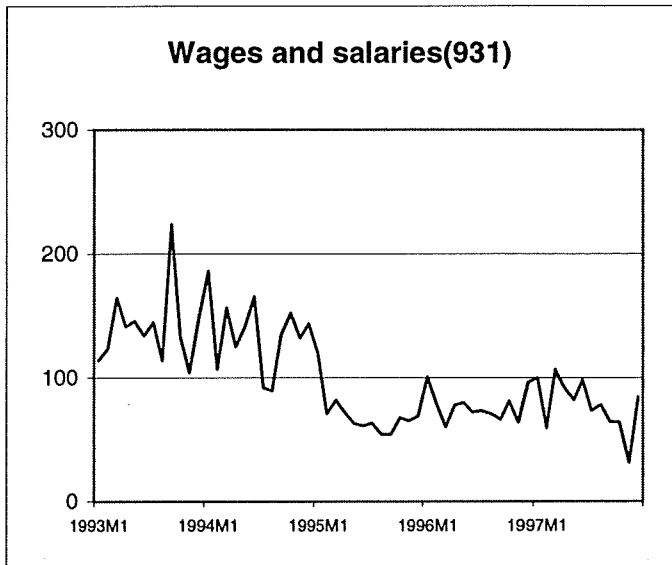
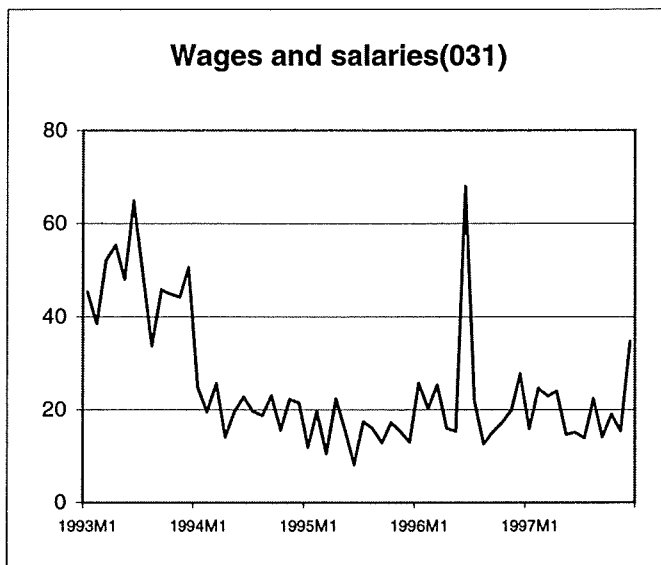
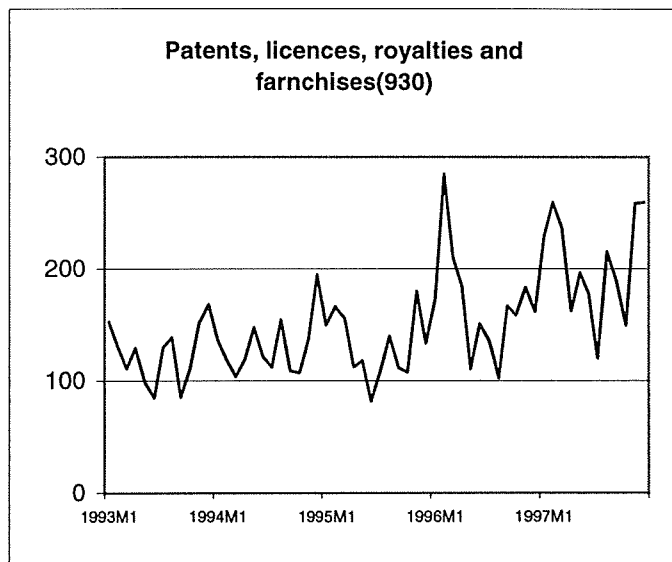
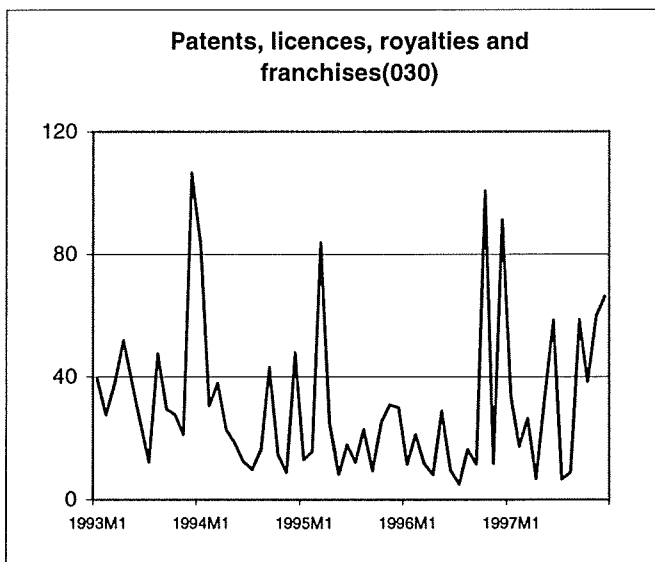
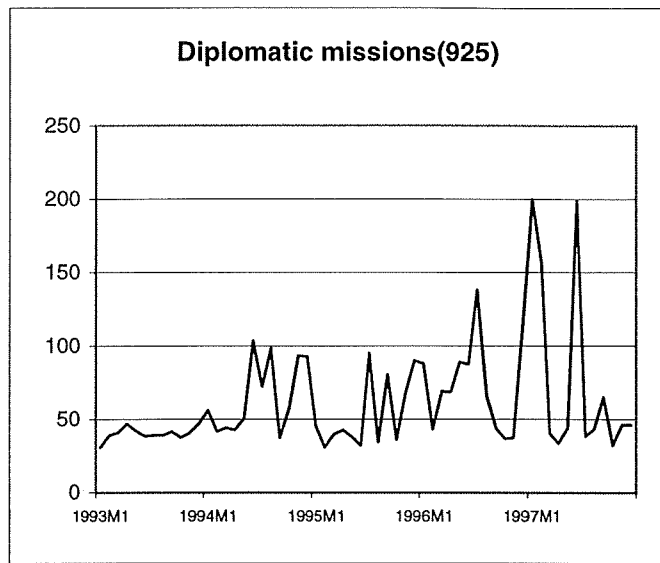
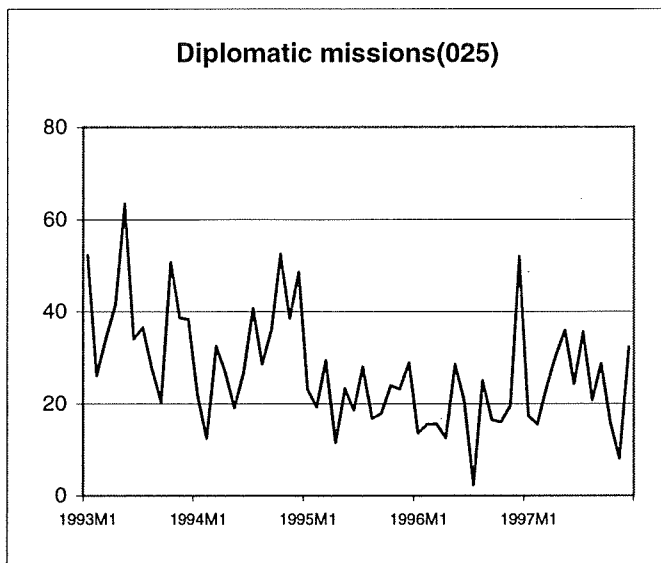


Overhead expenses of subsidiaries, associates and branches(924)



Incoming payments(Mill. FIM)
Sample period 1993M1-1997M12

Outgoing payments(Mill. FIM)
Sample period 1993M1-1997M12



Incoming payments(Mill. FIM)
 Sample period 1993M1-1997M12

Outgoing payments(Mill. FIM)
 Sample period 1993M1-1997M12

