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http://www.hkss.org.hk

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Editor's Foreword

This is the second electronic distributed version of the Bulletin and I hope you like it. As usual, I would urge you members to contribute some articles for the Bulletin.

In this issue, first, we have our President's Forum. We visited Mai Po on 20 February and had a nice time there. Agnes Law has summarized this trip and presented some photos.

Peter Ip showed us the official statistics on producer price indices of service industries. Also, there are some interesting estimations for bounds for Mark 6 for several prices. Lastly, the HKSS Examination Board reported progress of the HKSS Professional Statistical Examination.

There are two master courses in Statistics Department of the Chinese University of Hong Kong. For details, please visit their websites.

http://www.sta.cuhk.edu.hk/mrms/MSc.htm
and
http://www.sta.cuhk.edu.hk/PostG/DBS_MSC.html

Again, I would like to use this opportunity to thank all members of the Editorial Board.

L.K. Li

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President's Forum

Professor Tony W.K. FUNG

Time flies and it is near the end of the 2004-05 Session of the Hong Kong Statistical Society.

On 31 March 2005, the Society is going to hold the Annual General Meeting (AGM) at the Immigration Officers Mess, 20/F, Immigration Tower, Wan Chai. In the meeting, the Society will have a certificate presentation ceremony to award the honour of **Honorary Member of the Society to:**

Professor CHAN Lai-kow, Dean, Faculty of Business, City University of Hong Kong, in recognition of his contribution to the profession for outstanding research and teaching of statistics;

Mr. FUNG Hing-wang, Deputy Commissioner, Census and Statistics Department, in recognition of his outstanding services and contributions to the Society.

I strongly encourage members to attend the AGM and the certification presentation ceremony.

I am pleased to inform you that the **Society is going to organize its conference on 17 December 2005** (Saturday). Perhaps some members may remember that the last conference of the Society was held more than 10 years ago in January 1995. The forthcoming conference provides a good opportunity for many of the Society's members gathering together to present their recent work and learn more about others' research findings.

I look forward to your active participation in the forthcoming conference and your continual support of the Society.

Producer Price Indices of Service Industries

Peter IP
Census and Statistics Department

Introduction

Producer price indices (PPI) are currently compiled by the Census and Statistics Department (C&SD) for Hong Kong's manufacturing industries and some selected major service industries.

PPI of manufacturing industries has been published quarterly since July 1997. PPI for service industries has been developed by phase. In view of the conceptual and technical complexities involved, intensive studies are required before appropriate methods can be established for compiling the relevant statistics. Indices of three service industries have been released for the first time in April 2000. Up to end 2004, PPI of eleven major service industry groups and 4 component industries are published in the Hong Kong Monthly Digest of Statistics.

What is the producer price index?

Basically, PPI is a **price index** that measures the change in price of a set of commodities/services relative to the base period. A widely used price index is the Consumer Price Index (CPI). CPI measures the changes over time in price level of consumer commodities and services generally purchased by households, and reflects the average impact of price changes on consumers.

Other types of price indices can be compiled for different purposes, e.g. retail price index measures price changes of commodities sold in retail outlets (and retail outlets may sell to visitors and to some business firms in addition to households).

The PPI of a **service industry** in respect of a reference quarter measures the producer prices received in the reference quarter of the service products delivered by the industry concerned compared with the base period. Producer prices are actual transacted prices, net of any discounts, premiums, rebates or allowances given to buyers but including surcharges, received by local producers for their outputs.

PPI can be used as a deflator for discounting the effect of price changes so as to measure changes of real output which facilitates the compilation of Gross Domestic Products in real terms. It also facilitates the

assessment of productivity growth in an economy.

PPI is also useful as an economic indicator for monitoring the price movements of local outputs and evaluating their price competitiveness vis-à-vis those delivered in other countries/territories.

Readers may note that CPI also covers services. However, CPI for services is different from PPI for service industries. CPI for services measures the changes in the total cost of a basket of services representative of the average expenditure pattern of households. It is useful for analysing price movements of services generally consumed by households. On the other hand, the output of service industries can be either an input to other industries or consumed by households. The outputs of some service industries are not normally consumed by households (e.g. freight transport services) while some services cater primarily for the needs of visitors (e.g. hotel services) and are therefore not covered in the CPI system.

Development of PPI in respect of service industries

With a view to enhancing the statistical infrastructure in support of Government's initiative of services promotion, a study was conducted in late 1997 to develop price indices in respect of service industries.

Compared with manufactured products, output of the service industries is more difficult to measure. Notable examples include management consultancy, accountancy and legal services. These industries usually produce "one-off" outputs and may not regularly repeat exactly the same assignment or service. Changes in quality are also less discernible. Thus it is more difficult to obtain comparable price data for different periods.

In view of the conceptual and technical complexities involved in compiling PPI in respect of service industries, a few major industry groups were first selected for PPI compilation, including hotels and boarding houses, telecommunications and miscellaneous communication services. They were selected because the respective product specifications were more straightforward and the price data over a longer period could be available, which in turn would facilitate the compilation.

Price data on these service industries were collected as from the third quarter of 1998 through the Quarterly Survey of Services Industries (QSSI) launched by the Census and Statistics Department.

PPI compilation was subsequently extended to eight other selected major service industry groups covering transport and some business services. In 2004, four PPI sub-indices for component industries in the

transport industry groups were also released so as to tie in with the development of logistics services. As at end 2004, PPI for the following industry groups and component industries were published:

1. hotels and boarding houses
2. land transport
   a) land freight transport services
3. maritime transport
   a) container terminals, haulage of container and container leasing services
   b) sea cargo forwarding services
4. air transport
   a) air cargo forwarding services
5. storage
6. telecommunications
7. miscellaneous communication services
8. stock, commodity and bullion brokerage services
9. real estate maintenance management, brokerage and agency services
10. rental of machinery and equipment
11. legal, accounting, auditing and bookkeeping services

How is PPI compiled?

The PPI in respect of selected service industries of Hong Kong are compiled mainly from data on producer prices of service products collected through the QSSI. The survey also collects business receipts data for compiling the quarterly business receipts indices of service industries, which measure changes in the value of local services output.

For some service products where price data are collected through the CPI system, relevant data are extracted from the CPI system instead of being collected through the QSSI.

The PPI of a particular industry is compiled on the basis of a selected "bundle" of the more important service products of that industry.

The formula for calculating PPI can be written as:

$$I_t = \frac{\sum_k Q_{k0} P_{k0} \cdot \left(\frac{P_{kt}}{P_{k0}} \right)}{\sum_k Q_{k0} P_{k0}}$$

$$= \frac{\sum_k w_k \cdot \left(\frac{P_{kt}}{P_{k0}} \right)}{\sum_k w_k} \qquad \textbf{(1)}$$

where:

(P_{kt}/P_{k0}) = price relative in period t compared with period 0

w_k = $Q_{k0}P_{k0}$ or business receipts derived from the kth service

In actual compilation, the index is obtained by first computing the price relative[1] of each of the component service products pertaining to that industry. For example, in hotels and boarding houses industry, there are four component service products, viz. hotel lodging services, food/beverage serving services of Chinese restaurants, food/beverage serving services of non-Chinese restaurants and food/beverage serving services of bar/lounge.

The price relative of a component service product, e.g. hotel lodging services, is obtained by aggregating the price relatives (in this case room tariffs) of each hotel, using the business receipts of the service produced by the hotels in the preceding year as weights:

$$PI_{t-1,i}^{q,t} = \frac{\sum_j (PI_{t-1,ij}^{q,t} \times V_{ij}^{t-1})}{\sum_j V_{ij}^{t-1}}$$

where:

$PI_{t-1,i}^{q,t}$ = price relative for product (i) in current quarter *q* of year (t) compared with year (t-1)

$PI_{t-1,ij}^{q,t}$ = price relative for product (i) in establishment (j) in current quarter *q* of year (t) compared with year (t-1)

V_{ij}^{t-1} = gross-up business receipts of product (i) in establishment (j) in year (t-1)

The price relatives of the component service products pertaining to the industry (e.g. the four component service products in the hotels and boarding houses) are then aggregated, using the business receipts of the products as weights, to form the price relative of the respective industry:

$$PI_{t-1,ind}^{q,t} = \frac{\sum_i (PI_{t-1,i}^{q,t} \times W_i)}{\sum_i W_i}$$

where:

$PI_{t-1,ind}^{q,t}$ = PPI for industry *ind* in current quarter (q) of year (t) compared with year (t-1)

$PI_{t-1,i}^{q,t}$ = PPI for product (i) in current quarter (q) of year (t) compared with year (t-1)

W_i = sales value/business receipts of product (i)

[1] Price relative refers to the ratio of producer price for the reference quarter to the average producer price of the same product in the preceding year, i.e. (P_{kt}/P_{k0}) in (1).

The result, being an index with the preceding year as the comparison base, is converted to the PPI of the industry at base period by the method of chaining:

$$PI_o^{q,t} = \frac{PI_{t-1}^{q,t} \times PI_o^{t-1}}{100}.$$

The chained index formula is considered most appropriate for compiling PPI given the rapid changes of service products over time.

Quality change

In general, PPI should not be affected by changes in quality or in sales conditions. Quality differences have to be identified and eliminated in calculating price changes for inclusion in the index. Service product changes that are regarded purely as style changes are not generally considered to be quality changes. Minor changes in specification that do not affect the contents of the service are also regarded as having no effect on quality.

To separate pure price movements from other changes when an item is replaced by a substitute item of different quality, the method of splicing is used. Prices for both the old and the new variety are collected in an overlapping quarter. The difference between the prices of the two varieties in the overlapping quarter is assumed to represent the value of their quality differences. For the purpose of calculating the price index, price relative for the new variety in the quarter following the overlapping quarter over the overlapping quarter will be linked with the price index of the old variety in the overlapping quarter.

Future development

The feasibility of further expanding the coverage of PPI to other major service industries will be studied. Reference will also be made to the relevant experience of overseas statistical authorities and international recommendations such as those in the "*Producer Price Index Manual – Theory and Practice*" published by IMF in 2004 to further improve the PPI.

Data dissemination

Quarterly PPI are published in the C&SD publication "Hong Kong Monthly Digest of Statistics". They are also released on the C&SD website (http://www.info.gov.hk/censtatd/eng/hkstat/fas/commerce/business/ppi_s_index.html).

Updated Estimations for Mark Six

Leong Kwan LI
Hong Kong Polytechnic University

Redistribution of Wealth and Lottery

Investment, speculation and gambling have fuzzy boundary. Some people try to identify these by means of one's moral standard while others use expected return or the period of time involved. For some people, lottery means gambling because the outcome is crispy. Unlike horse racing or football match results, we assume that all outcomes of a lottery appear equally likely for a single event. The sample size of outcomes is relatively large when comparing with a single race or match. Moreover, the expected return does not increase for repeated or larger bets for the same result. On the other hand, lottery and insurance collect a large amount of money to form a pool. Insurance rebates to unlucky contributors while lottery allows some lucky people to share part of the contributions. Of course, it will be more valuable to create wealth for the society than to gain money from the others.

In the following discussion, lottery is considered as an applied combinatoric problem and will focus on Mark Six in Hong Kong. The objective is to find some upper bounds for the number of bets to get the second and the seventh prize.

Probability of Winning a Prize for Random Bets

Like UK National Lottery or California Lotto, Hong Kong has its own lottery draw, ' Mark Six'. From 4 July 2002, two more balls are introduced and the Mark Six Lottery becomes a 6 out of 49 on-line lottery game conducted by the Hong Kong Lotteries Board. The seventh number drawn is the extra number. There are seven kinds of prizes with the forth to seventh prizes are fixed prizes. There are 260264 possible prizes out of 13,983,816 outcomes in each Mark Six draw. People will gain the first prize if one gets the 6 drawn numbers in a single bet. Mathematically speaking, to ensure the first prize one needs to bet on all the ${}_{49}C_6$ = 13,983,816 combinations. One gets the second prize if a bet contains 5 of the drawn numbers plus the extra number. In this note, we will focus on strategies ensuring the second or better prizes and also to find an upper bound for the seventh prize.

Since there is tax and commission charge in this game, money for first, second

and third prizes are less than 59% of the total bet amount. Though we suppose the 7 numbers drawn are random, the cash prizes are significantly different for each draw. It is not only due to the total amount of bet is different, but also people choose the numbers related to personal particulars such as age, birthday, phone number or number which sounds lucky to them. Haigh (1995) studied the factors that inferring the choice of combinations in the National Lottery. Thus, in Hong Kong, it seems relevant to assume that somebody gets the first or second prize if the largest number drawn is less than 31, and especially when the initial of the phone numbers 23, 25 or 26 are drawn. Based on such kinds of bias, Cox, Geoffrey and Nicole (1998) gave a statistical approach on how to double ones expected winnings in UK National Lottery while Stern and Cover (1989) introduced maximum entropy idea for picking the lottery numbers. A lot of statistical results can be found in many web sites and newspaper, so, we choose a combinatoric approach.

Let P=260,264 be the total number of prizes and Q=13,983,816 the total number of bet combinations, it is extremely hard to bet (Q-P) combinations and get nothing back. Suppose $R = Q-P = 13,723,192$, the probability of loss for a random bet is R/Q=0.981362. Similarly, if we bet $(n+1)$ random combinations (assume no repeat), the probability of winning at least one prize is

$$1 - (R/Q) * (R-1)/(Q-1) * \ldots * (R-n)/(Q-n).$$

With the aid of a computer, it is not hard to show that it only takes 38 random bets for winning a prize with probability greater than one half. The probabilities for at least 90%, 95% and 99% are 124, 161 and 246 random bets respectively. The sixth prize is 160 which equals to the cost of 32 bets. Similarly, the probability of winning a prize for a batch of 32 random bets is 0.4523. For a computer ticket of 4 random bets, the probability of completely loss is 0.92751.

An Upper Bound for Second Prize or Better

Long time ago, my friend asked me how he should bet if he aimed at the second prize. Since there are 7 prizes for first and second prizes together, an obvious answer is $(Q-6)$ bets which guarantee he gets the second or the first prize. A better bound is ${}_{48}C_6$ which means we throw away one number, say 49. If 49 is one of the 6 drawn numbers, he gets the second prize. If 49 is the extra number, he gets the first prize. Otherwise, he gets the first prize and six second prizes.

Use the same idea, if we separate the 49 numbers into two groups: group A contains forty-seven numbers and group B contains two numbers. Mind that there are seven numbers drawn altogether. If we neglect group B and get the ${}_{47}C_6$ bets, we shall lose the first and the second prizes only if both numbers in B are drawn. To play save, we need ${}_2C_2 * {}_{47}C_4 = {}_{47}C_4$ more bets. Thus,

$_{47}C_6 + {}_{47}C_4$ is another bound for obtaining the second or better prize. In this case, we get the first prize if the six drawn numbers in A and B are distributed as (6,0) or (4,2) respectively.

Similarly, we split the numbers into two groups A and B where A contains 46 numbers while B has 3 numbers. Then, $_{46}C_6 + {}_3C_2 * {}_{46}C_4$ is sufficient. Thus, if we apply the same method and split the numbers into two groups, where A contains *n* numbers and B has m= *49-n* numbers, then

$$_mC_6 + {}_mC_4 * {}_nC_2 + {}_mC_2 * {}_nC_4 + {}_nC_6$$

for $m + n = 49$ and $m, n = 6$, gives the bound for the second or better prizes. By using a computer again, we find that the lowest bound occurs when *n=34.* It takes 6,985,154 bets. It is not hard to show that one gets the first prize if either of these two groups contains an even number of the 6 drawn numbers with probability 0.499517. The best return comes up if all 7 numbers are included in the set of the 34 chosen numbers which has a probability 0.06262607. In this case, one will get the first prize, 6 second prizes, and 162 third prizes.

There are several ways to split the numbers, a better bound will be obtained by dividing the 49 numbers into 3 groups and apply the above tricks again. The partitions of the 7 drawn numbers are more complicated and we leave it for interested readers. On the other hand, based on the past data, one may increase the chance of getting the first prize but we do not discuss it here. Further, as the cash prize varies greatly because there may be more than one person that has the `right choice'. The expected return for each prize is also a good exercise in statistics. To the best of my understanding, up to now I find no arbitrage opportunity for second prize.

An Upper Bound for Seventh Prize

It is clear if our batch of bets contains all the $_{49}C_5$ combinations, we get six third prizes or the first prize for sure. In fact, $_{48}C_5$ is good enough to obtain at least a third prize. If our batch of bets contains all the $_{49}C_4$ combinations, we shall get at least one fifth prize and $_{47}C_4$ will be an upper bound. After 4 July 2002, two more balls are introduced for Mark Six Lottery and a new seventh prize is added if we get 3 of the 6 drawn numbers in a single bet and the fixed return is $20. In fact, $_{46}C_3$ is for sure. One simple trick is to get all $_{43}C_3$ combinations in a batch plus one bet on the remaining 6 numbers.

Another trick is to divide the numbers into three groups A, B and C, with 24, 24 and 1 numbers respectively. According to Pigeonhole Theorem, either group A or group B will contain 3 or more of the drawn numbers so that we get a seventh prize if we get all the $_{24}C_3$ =2024 combinations of the numbers of group A and group B. Thus, the simple trick is to construct a batch of 2024 bets that put all the 3 number combinations of A into each of the 2024 bets and then fill the

other 3 numbers with the ${}_{24}C_3$ combinations of B.

A less upper bound (not least upper bound) batch of bets is to divide the numbers into three groups of 22, 22 and 5 numbers and use the same trick. Since each bet contains ${}_6C_3 = 20$ three numbers combinations, at least ${}_{22}C_3 / {}_6C_3$ bets are needed for each group A as well as group B, so that, the least upper bound is greater than

$$2*({}_{22}C_3 / {}_6C_3) + 22 = 176.$$

Remarks

The above discussion is just a typical applied combinatorial problem. Similar computations may have been appeared in some paper already. In order to reduce the number of bets, we may have some further assumptions such as a number will not be drawn three times successively. By using conditional probability, it may be properly happened but it fails sometimes.

On the other hand, as the physical setting of the lottery is same. I assume the draw is chaotic rather than random though independent each time. We may reduce the number of bets if we assume that some numbers will not show up together. In fact, there are a few pairs of numbers that are drawn exclusively for Mark Six. That is for some pair of numbers (p, q), if *p* is drawn then *q* will not be drawn. It may conclude that the sample size is not big enough or the setting has some physical limitation. Yet, with this exclusive pair assumption, this will lead to another estimation of the bounds for second prize and we leave it for the readers who are eager to become a millionaire.

For those readers who are eager to find arbitrage opportunity, Li (1998) had some estimation for the bounds of the third, forth, fifth and sixth prizes. As mentioned before, like many other applied combinatoric problems, we introduce a systematic way to construct some bounds for the solution but we are not sure whether these are optimal.

Nevertheless, as a concluding remark, here are many ways to redistribute the wealth in the society. Roughly speaking, it includes charity, trade, gambling and robbery. Charity has its own moral significance. Trade improves the quality of life and encourages people to produce wealth. Robbery and corruption hurt people and the society; hence, they are illegal and immoral. Similarly, many societies forbid most of the gambling because gambling does not produce wealth of a society and leads to crimes.

References

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HKSS Professional Statistical Examination

HKSS Examination Board

The Examination Board* was glad to note that a total of 65 candidates had taken the 2004 round HKSS Professional Statistical Examination. Many of them got very good results. A bilingual press release announcing the new developments of the examination was issued on 6 October 2004. This article highlights some major developments of the Examination.

Three rounds of the Examination successfully conducted

So far, three rounds of examinations (2002, 2003 and 2004) have been successfully conducted and over 200 candidates have sat for the examination. More than 50 candidates have obtained qualifications at various levels of the statistical profession.

Among the 65 examination associates/ members of the Society registered for the 2004 round of examination, 11 registered for the Ordinary Certificate (OC) level, 40 the Higher Certificate (HC) level and 14 the Graduate Diploma (GD) level. Examination results were encouraging. Altogether 18 candidates (5 sitting for OC, 11 for HC and 2 for GD) were awarded with certificates. Six of them had scored credits/distinctions. One candidate actually managed to get through the GD by taking all five papers at one sitting and was awarded an overall credit. A list of these candidates is at Annex 1. Congratulations to all of them!

Examination fees

The Examination has been receiving funding support from the Government Service Support Fund since the launch of the 2002 round in October 2001. Starting from the 2005 round, it will become completely self-financing. To ensure that ends will meet even without external subsidy, the registration and examination fees for the Examination have been increased with effect from 1 October 2004.

To register for the Examination, applicants should either be full members or student members of HKSS. Under the new charging scheme, full members and student members shall pay a registration fee of $230 and $330 respectively. Non-members of

* Membership of the Examination Board includes: Mr. HW Fung (Chairman), Ms Cecilia Chan (Hon. Secretary), Prof. PS Chan, Mr. John Lam, Prof. Stephen Lee, Mr. Raymond Tam and Dr. H Wong

HKSS may also take the Examination by enrolling as an Examination Associate. The annual subscription fee is $380, which already includes registration fee for the Examination. The revisions to examination fees for each paper are summarized at Annex 2.

The RSS has raised their examination fees every year over the past three years. As such, despite the increases mentioned above, the fees for taking HKSS Examination are still more than 20% lower than those of the RSS Examination in 2005. Local candidates will therefore continue to enjoy the benefit of paying less by taking the Examination in Hong Kong.

New syllabus starting from 2006 round

The RSS recently issued a revised syllabus for the examinations which will take effect as from 2006.

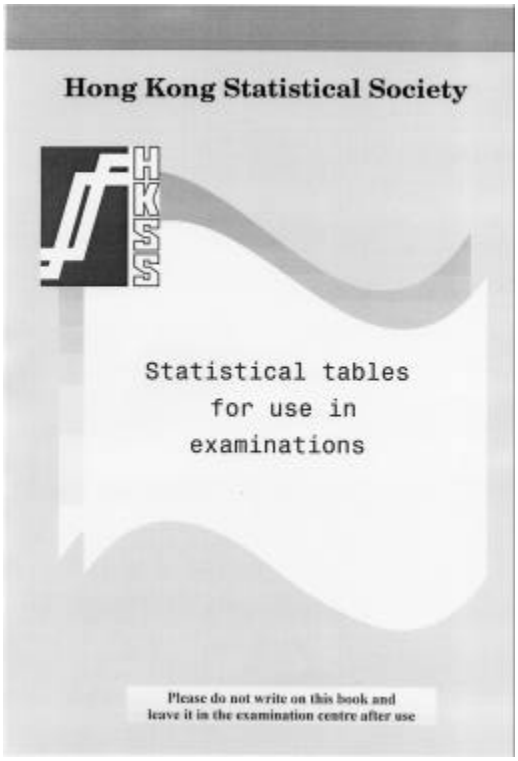
Following the changes made by RSS, the syllabus for the HKSS Examination was also amended accordingly. In the new syllabus, the requirement for simple concepts of databases in OC is deleted. Knowledge in hypergeometric distribution is explicitly required in HC. A new section on statistical inference is included in HC. Wilcoxon rank sum test is included in HC and GD. A new section on use of regression and correlation is included in HC, while the use of the Durbin-Watson statistic is moved to GD.

The new syllabus will be effective starting from the 2006 round of Examination.

Statistical tables

With reference to the statistical tables used by the RSS, we have prepared two sets of statistics tables (one in English and one in Chinese) for our Examination. All essential statistical tables that candidates may require in the examinations are covered.

Hardcopies of the statistical tables will be distributed to candidates in each examination session. They are not allowed to bring their own copies into the examination halls. In order that candidates may familiarize with the format before examination, softcopies of the tables can be downloaded from the website of the HKSS. The statistical tables will be used starting from the 2006 round.



Briefing seminar

To enable interested persons and HKSS members to know more about the latest developments of the Examination, a briefing seminar was held on 15 October 2004 at the HKU SPACE, Admiralty Centre. About 70 examination associates/members of the Society and students from tertiary institutions attended the seminar.

Prof. Tony Fung, the HKSS President and Mr. HW Fung, Chairman of the Examination Board, briefed participants of the recent developments of the examination. Representatives from various tertiary institutions introduced relevant statistics courses in their institutions to participants.

Opportunity was also taken to present certificates to candidates who had successfully completed various levels of the Examination.

At the end of the seminar, some senior members of the Society shared their experience with participants. Most of the participants found the seminar informative. Many of them expressed interests in knowing more about the course details.

Next round of Examination

The coming round of examinations will take place in the Chinese University of Hong Kong during 17 - 19 May 2005. Invigilation will continue to be provided by the Hong Kong Examination Authority, to ensure that the Examination is conducted in a fair and independent basis. Details of the Examination such as registration procedures, application forms and past papers etc. can be found on the HKSS website at www.hkss.org.hk.

Annex 1

List of Candidates who have been awarded Certificates in 2004

The following candidates have successfully passed the Ordinary Certificate (OC), Higher Certificate (HC) and Graduate Diploma (GD) levels of the HKSS Examination in May 2004. They have been awarded the respective OC/HC/GD certificates, duly signed by both the HKSS and RSS. Congratulations to all of them and wish them every success in their further study!

- *Ordinary Certificates*

CHUNG Yuen-yue Yvonne	(with credit)
KO Chin-pang	
LAU Man-yi	(with credit)
LAU Pak-hong	
MA Oi-fong	(with credit)

- *Higher Certificates*

CHAN Wai-kin	
LAI Man-yee	
LAU Ching-hang	
LEUNG Shu-lai	
PANG Wai-por	(with distinction)
SUEN Ka-fai	
TSUI Ka-chun	
WONG Kai-choi	(with credit)
WU Kwong-hung	
YU Chi-nang	
YU Ka-ho	

- *Graduate Diploma*

CHAN Tsz-shing	(with credit)
NG Cheuk-man	

Annex 2

Revised registration and examination fees
(with effect from 1 October 2004)

Registration fees

To registered for the Examination, HKSS members should pay the following registration fees:

Membership	Before revision	After revision (w.e.f. 1 Oct 2004)
Full members of HKSS	$100 per sitting	$230 per sitting
Student members of HKSS	$200 per sitting	$330 per sitting

Enrolment fee for Examination Associate

Non-members may also register for the examination by enrolling as Examination Associates. Enrolment fee, which already includes registration fee, is as follows:

Before revision	After revision (w.e.f. 1 Oct 2004)
$250	$380

Examination fees

Examination fee for each level is as follows:

Level	Before revision	After revision (w.e.f. 1 Oct 2004)
Ordinary Certificate	HK$900 per sitting	HK$1280 per sitting
Higher Certificate	HK$420 per paper (or HK$1260 for three papers)	HK$600 per paper (or HK$1800 for three papers)
Graduate Diploma	HK$480 per paper (or HK$2400 for all five papers)	HK$700 per paper (or HK$3500 for all five papers)

Mai Po Bird Watching

Agnes LAW
City University of Hong Kong

On a chilly winter day after the arrival of the Chinese New Year of the Rooster, HKSS organized a trip to one of the best kept natural paradise in Hong Kong: Mai Po. The day was 20th February 2005 when some 30 members and non-members gathered in Kowloon Tong KCR station exit ready to embark on an exciting trip to visit Mother Nature's arm in Hong Kong.

It was my first time to join a trip to the place, not to mention join a trip with the HKSS members and colleagues. I am sure everybody was excited about the trip since it was organized a few months before the event.

Expectations were high as I haven't been to such a place like this. Mai Po, a place with huge reputation in Hong Kong as a place to see for the nature lovers like me. It is reputed to have a huge amount of natural resources and various species of birds coming to Hong Kong while going for a winter migration to and from the North of China.

Being a nature lover, I have always loved the idea of going to a place like this and have been waiting for such an event for many years to come by. It was rewarding to see all of our hard work in planning the event finally getting realized on such a day. I was hoping to see a lot of different species birds before we arrived to Mai Po thus broadening my knowledge in the area.

After getting on the bus at around noon, we were greeted by a tour guide arranged by the tour company. Our itinerary also included a trip to the famous "Lau Fau Shan" seafood restaurants to enjoy a sumptuous lunch at the harbour side of the New Territories. So, we moved on towards that direction and reached at Lau Fau Shan at around 12:30pm.

After arriving at Lau Fau Shan, we enjoyed a great seafood lunch which included steamed prawns, fish, scallops and oysters. Their native delicacy, oysters, were especially delicious. We also saw the fishermen selling the fresh oysters at a mere HK$30 per catty near the shore, tempting me to buy 1 catty to try out also. I also purchased their famous oyster sauce and friend sesame walnuts.

After pumping enough energy in our bodies to make sure we had enough power, we embarked on our trip to Mai Po from Lau Fau Shan at around 1:30pm. We arrived at Mai Po at around 2:15pm. We started registering and completing the formal procedures in order to get access to the otherwise restricted vicinity. Many of us also

loaned a set of binoculars at $20 per day so that we could see the birds at a better clarity.

We then started our trip in and around the park which lasted for around 3 hours. Unfortunately, due to rather bad air quality, low temperature, and timing, we were not able to see too many species of the birds. In spite of that, we did see a couple of very interesting species which cannot be found in the city. Some of them were the Blue Sparrow and the Kingfisher. Besides, we also had an opportunity to see the migrating birds staying in Hong Kong. These were the Cormorants that were all resting on the trees covering at least a square mile of space. In fact, there were around six thousand of these birds in and around the area of where you can see a land of white trees covered mostly of their droppings.

After seeing the birds, we went on to understand more about the wetlands and their importance in the habitat. They were closely associated to the existence of "Gei Wai" shrimps and their farming patterns. It was saddening to know that these shrimps population was decreasing due to human inflicted damages done to the planet. Substantial water pollution has created enough damage to decrease the shrimps farming to a seriously low level.

This has really convinced me to try my best to help the planet to combat pollution. With this, I would also plead to all of you to try your best to "think green" in any way possible to do your part in reducing the stress to the environment. Today we see nature as "take it for granted" commodity where we can create and destroy at will. My personal opinion is, however, that the environment cannot be created artificially without the respect to it and taking care of it just as if it is your home backyard.

Overall, I enjoyed the day a lot and hope I can see you all in the other activities organized by the HKSS in the future.