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Second homes

Second homes abroad: The Norwegian experiences in estimating economic stocks and flows

Note by Statistics Norway

Summary

Due to the risen economic welfare and work-related mobility on the global level, it has become increasingly more popular to acquire second homes abroad. This paper presents some of the main principles of recording economic stock values and flows related to second homes abroad. The methods used and assumptions made are examined in the context of Norwegian Balance of Payments and National Accounts framework.

I. Introduction

1. During the last couple of decades it has become increasingly more popular to acquire second homes or holiday homes abroad. Various factors can explain this development and some of them are:

- general growth in households' income
- more leisure time and longer holidays
- liberalisation of capital flows
- cheaper and more efficient transportation
- relaxation of border controls, making it easier for people to move between countries

2. In addition a growing number of the population requires access to two or more dwellings located in different countries due to their physical movements related to work. This situation is in itself a challenging topic, as it can be difficult to determine the residency of the person.

3. This paper examines some of the main principles used and the estimations carried out in recording economic stock values and flows in the Norwegian Balance of Payments (BoP) and National Accounts statistics (NA) related to second homes abroad. The focus is on the methods used and assumptions made rather than the results of the estimations.

II. Main principles

4. The recording of stocks and flows in the NA and BoP statistics related to second homes abroad must be discussed with three fundamental national accounts concepts kept in mind:

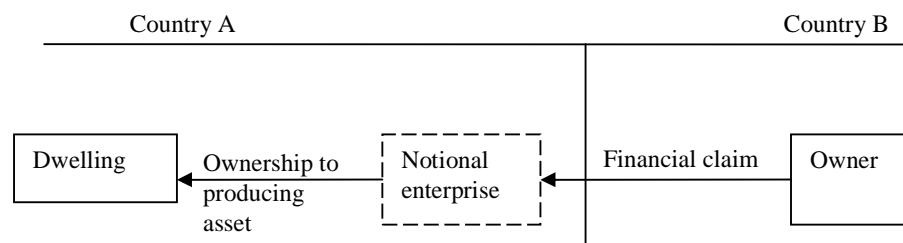
- Which economic values are involved?
- What kind of economic transactions are taking place, what events or actions are the economic values subject to?
- Who are the economic agents or transactors involved?

5. The economic value in focus of our interest is the dwelling. The economic agents involved are the owner of the dwelling and the occupier of the dwelling, which in many cases are one and the same. A set of principles can be lined out as follows:

6. Any dwelling, including owner occupied dwellings, is regarded as an economic asset or factor of production in its capacity of contributing to the production of dwelling services consumed by its occupiers, and this output is deemed to be allocated to the country where the house is physically situated.

7. If the dwelling is owned by a non-resident through a legal enterprise entity resident of the country where the dwelling is situated, the ownership is manifested through the shares in the hands of the non-resident. If the dwelling is directly owned, a notional unit is deemed to exist. Production capital situated in a country different from where the owner is resident, is in the NA and BoP always transformed by imputation into a financial asset representing a claim of the owner on the rest of the world, see figure 1.

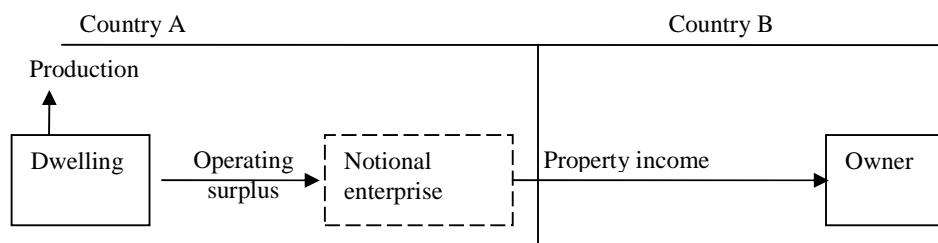
Figure 1
Direct ownership of second homes abroad



8. When a legal entity is established in country A through which the dwelling is indirectly owned by a unit resident of country B, an actual enterprise unit will replace the notional enterprise unit in figure 1.

9. The next question is what kind of economic processes or transactions are the dwelling subject to. First, a dwelling is a factor of production contributing to the generation of income to its owner. If the owner is a non-resident, an income flow from the producing country A to the owner country B will have to be recorded in both the BoP and the NA, see figure 2.

Figure 2:
Generation and distribution of income from second homes abroad

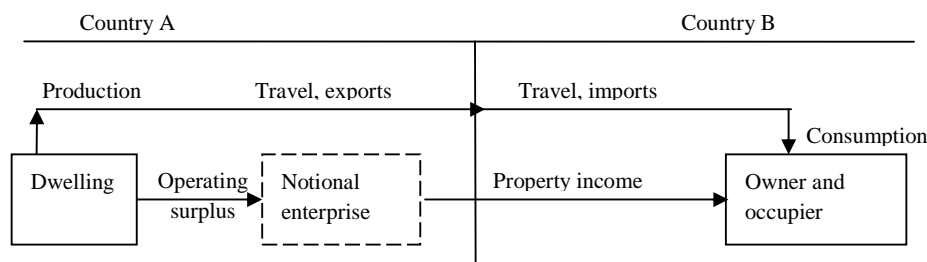


10. Furthermore, the dwelling services supplied in country A must balance the consumption of the same services, by whoever the occupier is. In case of the occupier being a resident of country A, i.e. the dwelling is rented to a local tenant, the balancing item will appear on the account for household final consumption expenditure¹ in the national accounts of country A.

11. On the other hand, if the occupier is a non-resident of country A, the balancing item must be recorded not as household final consumption of country A, but as exports included in the Travel item on the Rest of the World account of country A. In case of the occupier being a resident of country B, the dwelling services will have to be recorded as part of the Travel item, debit or imports and as a balancing item household final consumption in the BoP and NA of country B, see figure 3.

¹ If the dwelling is rented by a producing unit for subletting, the balancing item will be intermediate consumption of the producing unit.

Figure 3
Generation, distribution and use of income from second homes abroad



12. Finally, one important principal question to be raised is whether production or output (and consumption) of dwelling services takes place regardless of whether the dwelling is inhabited or not. This is a relevant issue as a second home per definition is not occupied full time by its owner, and in many cases not even let out to other tenants. There are two aspects to consider in this matter; first, generation of income to the owner is only possible if production of dwelling services takes place, and secondly, consumption of dwelling services can only exist if production takes place.

13. These questions are relevant not only for the estimation of flows connected with second homes, however, but are just as fundamental in estimating output and income from dwellings in general. It is therefore important to prescribe the same principles of calculations related to cross border ownership of dwellings as to the estimations of the dwelling industry in general in the NA.

14. In estimating dwelling services in general Norway follows the recommendations from the European Union (European Commission, 2005). Here the common problem of empty dwellings is discussed, but also the special case of holiday homes². To estimate the output of holiday homes the annual average rental of similar facilities shall preferably be used. The annual rental implicitly reflects the average occupation time.

15. Next, we turn to the sources and methods employed in the Norwegian NA and BoP statistics to estimate the stocks and flows described above. But first chapter 3 gives a short resumé of the development of those statistics in Norway.

III. The development of the Norwegian BoP statistics

16. In Norway the BoP has been compiled and published as part of the NA since its infant days. When strict exchange control was introduced just after the second World War, information on payments became available and prepared by Norges Bank, the Norwegian central bank, as bank settlements statistics. It was used for statistical purposes by Statistics Norway and published under the heading “Betalingsbalansestatistikk”, the Norwegian equivalent to Balance of Payments statistics (Payment=betaling). From the mid 1950’s the name of the statistics was changed to “Utenriksregnskap”, equivalent to “Rest of the world account” in English, at the time a striking act in promoting the integration of BoP with NA statistics.

17. The bank settlements statistics of Norges Bank evolved over time into the International Transactions Statistics (ITRS), and formed, together with customs based

² Articulated in para. 1.4.2 of Regulation 1722/2005 of the European Commission.

external trade statistics and statistics on freight income and operating costs of the Norwegian merchant fleet, the basis for the compilation of the Norwegian BoP statistics. Together with the annual census of assets and liabilities with non-residents, established as early as 1919, the users were supplied with a macro data set giving a broad picture of the residents' economic relations with non-residents of Norway.

18. Over time Norway experienced a substantial growth in the number and complexity of payment transactions with the rest of the world. Both the costs of collecting the data, but also their quality and consequently the quality of the settlements statistics, were questioned. The issue led to a closing down of the ITRS from primo 2005. At the same time Statistics Norway was assigned the task of designing and running a new data collecting system, initially covering all domestic sectors except the banks and credit institutions. Eventually these sectors were also included.

19. For the household sector a new data collecting system had to be established, built as a fragmented system based on different sources and reporting channels. As for data on stocks and flows connected to second homes abroad, a wider perspective was introduced compared to earlier years.

20. In the former ITRS of Norges Bank and BoP statistics of Statistics Norway, no real efforts had been put on estimating stocks of dwellings abroad. Neither had any attempt been made to impute flows of property income related to the ownership of such dwellings. As the ITRS in its core was based on payments or movements on bank accounts, the expenditures stemming from purchases of dwellings abroad were in principle included. There was however a real danger that those transactions were mixed up with transactions recorded under the Travel item.

21. On the other hand, Norges Bank started in the second half of the 1990's to collect data on and estimate the value of stocks of second homes abroad to be implemented in the financial accounts statistics for institutional sectors of the NA. This information was used in the new BoP statistics both as part of the International Investment Positions and as a basis for estimating related income and expenditure flows of the non-financial part of the institutional sector accounts. The next chapters introduce the methods used for estimating those stocks and flows in the current BoP and NA statistics.

IV. Estimating stock values of second homes abroad

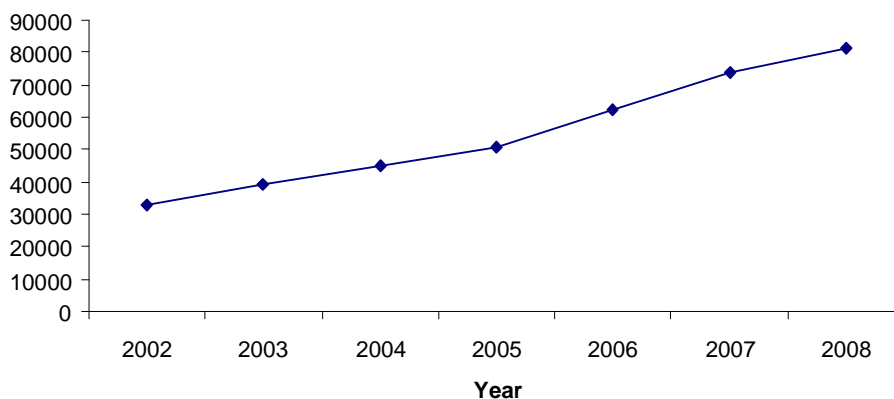
A. Stock value of dwellings owned by Norwegians abroad

1. Number and location of second homes abroad

22. The number of foreign properties owned by Norwegian resident households is based upon yearly data collected by Statistics Norway and an interview survey conducted in the second half of 2002 (Sentio, 2002). The interview survey found that 2 per cent of Norwegian households had holiday homes abroad.

23. The number of Norwegian households that own a second home abroad in 2002 is used as a benchmark. Then more recent years is projected by extrapolating the benchmark estimate with a volume index. The volume index is deduced from data recorded in the Tax Return Statistics (Statistics Norway), in which the number of persons who report they own property abroad is registered each year. Hence, the benchmark estimate from 2002 is extrapolated using the annual growth in persons reporting the own property abroad.

Figure 4
Estimated number of Norwegian households that own second homes abroad



25. Figure 4 above illustrates the growth in the number of households owning second homes abroad, estimated to be 32,900 households in 2002, and increasing to 81,172 in 2008. It can be mentioned that according to the Tax Return Statistics (Statistic Norway) the number of persons reporting ownership abroad is 14,045 and 34,670, respectively. The main source for the Tax Return Statistics is the Directorate of Taxes' Register for Personal Tax Payers, and it covers all individuals subject to tax assessment in Norway in the relevant fiscal year. By Norwegian law, ownership of foreign property is to be taxed. As the data stems from the personal tax return, reporting errors from respondents may be deliberately done in some instances, as true information will trigger off a tax claim. We therefore have reasons to believe that the number of persons claiming ownership is underreported in the tax data. Thus, data from the Tax Return Statistics serve only as basis for the volume index.

26. In order to locate in which countries investments take place, balance of payments data have been applied, founded on the former payment-based international transaction reporting system (ITRS)³. From this statistics the household sector is linked to payment transactions in foreign estate and their countries of origin. Location of second homes are categorised into Spain, Sweden, France, Denmark and other countries⁴. On the basis of these categories a frequency distribution is recorded, where Spain contributes 50 per cent, Sweden 20 per cent, France 10 per cent, Denmark 7 per cent and other countries 13 per cent of total investment by Norwegian households.

2. Average prices of second homes abroad

27. The stock value of foreign property is derived by applying average dwelling prices to the number of second homes abroad. Official average dwelling prices are used as a proxy for prices of holiday homes. The property market is split into the categories identified above from the ITRS. The average dwelling prices of Spain, France, Italy, the United States and the United Kingdom are derived from Reuters EcoWin (Thomson Reuters), while dwelling prices from Sweden and Denmark are collected from Statistics Sweden and Statistics Denmark, respectively. The figures are then converted from their actual

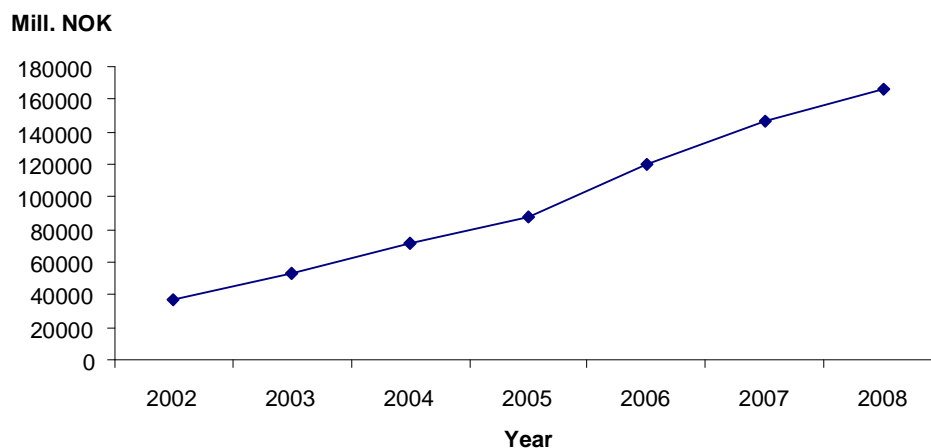
³ The data series were not continued after year 2004.

⁴ The category "other countries" consists of the United States, Italy and the United Kingdom.

currencies to Norwegian kroner using end-period exchange rates. Based on the frequency distribution deduced from the ITRS, the estimated number of households owning a second home abroad is dispersed accordingly into the countries investments take place. For each country, the estimated number of homes is then multiplied by the respective dwelling price calculated in Norwegian kroner. The total stock value of foreign property owned by Norwegian households is then the sum of stock values in each country.

Figure 5

Stock value of Norwegian households' investment in foreign property (second homes)



28. Figure 5 shows that from 2002 to 2008 total ownership of foreign property by Norwegian households has increased by nearly 130 billions Norwegian kroner, and the stock is estimated to about 166 billions Norwegian kroner in 2008. From 2005 to 2008 the value of Norwegian household property abroad more than doubled.

3. Transactions of Norwegian household investment in foreign property

29. The flow of investment in foreign property has been derived from the change in the level of foreign property stock. The difference between the current and previous stock level is equal to the sum of the transactions and revaluation effects. Revaluation effects reflect changes in the market value of property resulting from movements in exchange rates and prices.

$$(a) \quad E = X + Y,$$

$$(b) \quad Y = E - X$$

where

E = difference between the current and previous level of stock

Y = revaluation effects

X = foreign property investment transactions

30. Foreign property investment transactions are calculated by subtracting the number of Norwegian households that own foreign property for the previous period ($N_{t-1, \text{country A}}$) from the estimate for the current period ($N_{t, \text{country A}}$) in a specific country. This change in number is then multiplied by average price of second homes for the current period P_t , country A.

$$(c) \quad X_{\text{country A}} = (N_{t, \text{country A}} - N_{t-1, \text{country A}}) \times P_{t, \text{country A}}$$

31. The transactions are calculated for each country, and their sum is then total foreign property investment transactions.

$$(d) \quad X = X_{\text{Spain}} + X_{\text{Sweden}} + X_{\text{France}} + X_{\text{Denmark}} + X_{\text{other countries}}$$

32. The transactions are subtracted from the change in stock level between the current and previous periods to derive the revaluation effects.

B. Stock value of dwellings in Norway owned by non-residents

33. The number of foreigners who own property in Norway is registered each year in the Tax Return Statistics (Statistics Norway). In the statistics foreigners are defined as persons who do not reside in Norway. Furthermore, average purchase prices for second homes are registered quarterly in the Transfer of properties (Statistics Norway).

34. The stock value of dwellings owned by foreigners is calculated by the product of average price of second homes times the number of foreigners owning property in Norway. In order to estimate the value of transactions, the difference between the current and previous number of foreigners who own property in Norway is first derived. The differential is then multiplied by the current average price to estimate the transaction values. The revaluation effects are simply found by subtracting transactions from the changes of stock value for the current period.

V. Estimating cross-border income flows

A Property income from abroad

35. The imputed property income generated by secondary homes abroad is estimated by employing the same rate of return to the dwelling stock abroad as observed to the total dwelling stock in Norway⁵ according to the NA.

$$(a) \quad \frac{O_A}{S_A} = \frac{O_N}{S_N}, \text{ where}$$

OA= operating surplus of Norwegian owned dwellings abroad

SA= stock value of Norwegian owned dwelling stock abroad

ON= operating surplus of the dwelling industry in Norway according to NA

SN= stock value of dwellings in Norway according to NA

⁵ A better solution would be to use the rate of return on the dwelling stock in the various hosting countries, but this information has not been obtained.

36. For example, for the year 2002 operating surplus in the Norwegian dwelling industry was Norwegian krone (NOK) 49 billion, while the value of the total dwelling stock was NOK 1.1890 billion, thus the annual rate of return was $49/1180 = 4.2$ per cent.

37. We must however, keep in mind that chapter 2 establish the principle that operating surplus is generated only when production of dwelling services takes place, and that production only occurs when the dwelling is occupied. We assume the owner of a dwelling abroad is staying there less than half of the year, because otherwise the person could be regarded a resident of the country where the second dwelling is situated. We have no information with regard to time spent in the second home abroad, but have made an assumption that the owner stays there one month a year. In addition it must be taken into account that the dwelling can be used by others than the owner. Based on these reflections, we assume the average occupier rate or occupation time, to 25 per cent of the year, and consequently operating surplus is generated 25 per cent of the year.

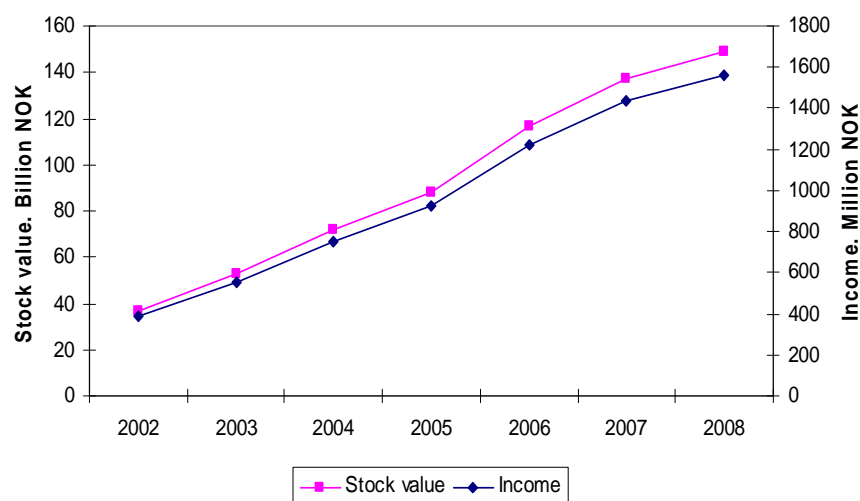
38. Given the estimated stock value of secondary homes abroad (see figure 5, chapter 4) and applying the rate of return and occupier rate derived above, the estimated operating surplus (dividends) from abroad in 2002 is estimated to $\text{NOK } 37 \text{ billion} \times 0.042 \times 0.25 = \text{NOK } 388 \text{ million}$.

39. One can assume that the financing of a dwelling abroad gives raise to interest costs, at least partly abroad. Ideally these flows should be estimated and recorded in the BoP and NA. In our case however, we have chosen to ignore them, meaning that NOK 388 million is recorded as property income, i.e. dividends, from abroad.

40. Figure 6 shows estimated stock values of and income flows from Norwegian owned second homes abroad for the period 2002 – 2008. Please note that stock values are given in NOK billion, while income is given in NOK million.

Figure 6

Estimated stock values of and received income from Norwegian second homes abroad.



B. Property income to abroad

41. Chapter A describes the estimation of income generated from Norwegian second homes abroad. Correspondingly dwellings located in Norway and owned by non-residents will generate flows of imputed property income from Norway to the rest of the world. The estimation of these flows follows the same principles as described in chapter A.

42. Operating surplus is estimated using the same rate of return on dwellings owned by non-residents as found observing the total dwelling stock in Norway.

$$(a) \quad \frac{O_B}{S_B} = \frac{O_N}{S_N}, \text{ where}$$

OB= operating surplus of dwellings in Norway owned by non-residents,

SB= stock value of dwellings in Norway owned by non-residents

ON= operating surplus of the dwelling industry in Norway according to NA,

SN= stock value of dwellings in Norway according to NA

43. Taking 2002 as an example, the stock value of dwellings owned by non-residents is estimated to NOK 21 billion, and by employing a rate of return of 4.2 per cent and presuming an occupier rate of 25 per cent estimated income or dividend to the rest of the world is NOK 217 million.

VI. Estimating consumption expenditures abroad

A. Non-residents' consumption of dwelling services in Norway

44. The Norwegian Tourism Satellite Account System (NTSA) is the framework used for calculating non-residents' consumption of own account dwelling services in Norway. Within this framework non-residents' consumption expenditures in Norway, represented in total by the Travel item of the BoP, are distributed over detailed consumption groups and even over detailed goods and service categories, among them the product "Imputed dwelling services from holiday homes". These data are included in the core supply and use tables of the NA.

45. The final figure for this service category stems from assessments and calculations based on data from two different sources; the imputed services from owner occupied dwellings as part of the estimation of the dwelling industry in NA and information from budget surveys on non-residents visiting Norway.

46. In the Norwegian NA, output in owner occupied dwellings is estimated according to the stratification method where actual observed rents for dwellings belonging to the various strata are used to estimate output in each stratum. For secondary dwellings or holiday homes a separate estimation procedure is employed. A benchmark estimate for output from secondary dwellings is calculated by taking the same output ratio to total output from dwellings as the ratio found on the corresponding stocks⁶, i.e.

⁶ The method employed may seem unsymmetrical compared to the way income is estimated, as no direct assumption is made on the average occupation time. This may be an issue for improvement.

$$(a) \quad \frac{Q_S}{Q_N} = \frac{S_S}{S_N} \quad \Rightarrow \quad \frac{Q_S}{S_S} = \frac{Q_N}{S_N}, \text{ where}$$

Q_S = output of secondary dwellings in Norway

Q_N = output in total dwelling industry in Norway

S_S = stock value of secondary dwellings in Norway

S_N = stock value of total dwellings in Norway

47. The stock value of secondary dwellings is estimated based on information from the 1991 Survey of Level of Living, which asked for a self-assessment of the value of secondary dwelling or holiday house, taking into account the fact that a household may own more than one holiday home.

48. Next, total output of dwelling services from second homes in Norway must be allocated to consumption by residents and consumption by non-residents. Here the core methodology used is assessing and balancing information on visitors to Norway from various sources. Among the most important is a five yearly survey operated by a private research institute, conducting sample surveys to map the expenditures of non-residents visiting Norway. The final assessment of information obtained from these sources resulted in a ratio of 80/20 in allocating total output of dwelling services from secondary homes in Norway to final consumption by residents and final consumption by non-residents.

$$(a) \quad Q_S = C_R + C_N = 0.8 Q_S + 0.2 Q_S, \text{ where}$$

Q_S = output of secondary dwellings in Norway

C_R = consumption of dwelling services by residents from secondary homes in Norway

C_N = consumption of dwelling services by non-residents from secondary homes in Norway

49. A benchmark value for imputed dwelling services from holiday homes consumed by non-residents was established for the year 1992 and has since been extrapolated using data from progress in the stock of second homes. For the year 2002 this method resulted in an estimate of services from owner occupied secondary dwellings in Norway consumed by non-residents amounted to NOK 270 million.

B. Norwegians' consumption of dwelling services abroad

50. To estimate final consumption of dwelling services by Norwegians from owner-occupied dwellings abroad, we assume that the ratio of services consumed to the stock value of dwellings are the same for dwellings owned by Norwegians abroad as for owner-occupied dwellings in Norway owned by non-residents.

$$(a) \quad \frac{C_A}{S_A} = \frac{C_N}{S_N}, \text{ where}$$

C_A = consumption of dwelling services from second homes abroad

S_A = stock value of secondary dwellings abroad

C_N = consumption of dwelling services from dwellings in Norway owned by non-residents,

S_N = stock value of dwellings in Norway owned by non-residents

51. Using data from 2002 we estimate the consumption expenditures of dwelling services from secondary homes owned by Norwegians in other countries to NOK 483 billion.

VII. Conclusions

52. The growth in ownership of secondary homes abroad has made it necessary to estimate stock values as well as income and consumption flows in the BoP and the Rest of the World account of the NA. Table 1 summarizes estimation results in the Norwegian NA and BoP for 2002.

Table 1.

Summary table 2002. NOK million

	<i>Norwegian owned dwellings</i>	<i>Dwellings in Norway owned by non-</i>
	<i>Abroad</i>	<i>residents⁴</i>
Stock value	36 936	20 629
Annual investment	10 985	988
Property income	388	217
Consumption of dwelling services	483	270

53. As seen from the table, the ratio between the stock value of dwellings owned by Norwegians abroad and non-residents ownership of dwellings in Norway, including their respective economic flows, is almost 2:1 in 2002. This result seems plausible taking into account both Norway's position in ranking income per capita for different countries and the size of the Norwegian BoP item Travel debit relative to Travel credit⁷. However, it must be admitted that more relevant and accurate information is in demand to raise the quality of these results. In particular, improvements could be made if NA-data from partner countries on dwelling activities is obtained and made use of in the calculations.

VIII. References

European Commission (2005): Regulation 1722/2005

Sentio Research Group (2002): Opinionsundersøkelse om nordmenns fritidsboliger, Trondheim.

⁷ In 2002 Travel exports was NOK 18 billion while Travel imports was NOK 41 billion.