

## Use of Financial Instruments in Thailand: 1997-2009

### Principal Results

- There is an increase in the use of formal borrowing, especially after 2002.
- Informal Borrowing decreased during the whole period, reaching levels below 6%.
- These trends are similar if we consider the four north-east provinces, separately.
- The use of lending declined sharply during the period.
- There is a strong increase in the use of formal savings from 2005 to 2009, mainly explained by changes in savings in commercial banks, BAAC accounts and agricultural cooperatives.

**Table 1: Use of financial instruments: 1997-2009**

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
total borr	52.0%	57.9%	65.8%	61.4%	61.8%	78.3%	79.3%	78.8%	77.6%	77.8%	75.9%	73.9%	72.2%
formal borr	33.3%	29.6%	34.6%	35.7%	35.5%	68.2%	73.3%	72.5%	73.2%	73.7%	72.7%	71.1%	69.9%
baac borr	24.5%	22.3%	25.7%	27.8%	26.3%	19.9%	20.5%	25.0%	30.3%	33.6%	32.2%	30.1%	29.3%
informal borr	20.1%	32.4%	39.0%	33.8%	29.8%	28.3%	23.5%	21.9%	16.1%	14.6%	10.0%	9.9%	6.3%
pcg borr	1.1%	0.7%	1.0%	1.3%	3.2%	5.2%	5.5%	7.2%	8.2%	10.1%	8.4%	8.5%	7.5%
coop borr	6.6%	6.5%	7.7%	6.5%	6.2%	8.1%	5.6%	7.3%	8.7%	8.0%	8.9%	7.8%	8.8%
com bank borr	1.4%	0.5%	1.0%	1.1%	0.9%	1.2%	0.9%	0.5%	0.6%	0.7%	0.4%	0.4%	0.2%
village fund borr	0.8%	0.5%	1.3%	1.1%	0.7%	58.6%	65.6%	63.1%	60.9%	63.1%	60.2%	59.9%	58.3%
money lender borr	5.5%	9.6%	12.2%	10.2%	9.6%	10.0%	8.0%	6.8%	4.5%	3.7%	2.3%	3.2%	2.9%
neighbor borr	5.0%	7.6%	8.7%	5.8%	3.1%	3.4%	2.3%	1.9%	1.8%	1.8%	1.7%	1.6%	0.7%
relative borr	9.3%	17.0%	22.9%	20.5%	17.6%	15.7%	11.7%	9.1%	5.7%	4.6%	2.5%	4.1%	1.4%
store owner borr	2.5%	6.2%	6.5%	4.3%	5.1%	5.5%	5.7%	7.9%	5.6%	5.7%	4.4%	2.4%	1.7%
other borr	6.5%	7.5%	10.1%	11.6%	16.6%	28.9%	20.3%	24.1%	18.0%	17.5%	13.8%	11.6%	8.5%
total lend	11.8%	16.3%	19.5%	19.8%	17.2%	15.7%	17.0%	16.1%	12.4%	10.7%	7.9%	7.8%	5.9%
formal sav		61.8%	51.5%	52.5%	51.8%	60.5%	54.5%	53.0%	82.0%	78.5%	75.8%	82.8%	82.5%
baac sav		31.8%	28.0%	28.5%	24.0%	24.3%	17.8%	17.3%	53.3%	50.5%	51.0%	56.8%	56.0%
pcg sav		5.9%	5.7%	9.0%	16.2%	37.0%	33.8%	34.0%	37.8%	29.6%	25.2%	23.3%	23.8%
ag coop sav		13.1%	8.5%	6.8%	5.9%	6.4%	4.7%	4.1%	15.5%	13.8%	12.9%	13.8%	12.1%
com bank sav		32.0%	22.5%	21.5%	18.0%	17.8%	12.1%	13.2%	40.3%	40.5%	40.0%	44.8%	49.3%
rice st sav		54.0%	57.0%	57.3%	59.3%	62.0%	59.5%	59.8%	62.3%	60.0%	58.5%	57.0%	55.3%

## Definitions

- We consider that a household used borrowing if  $B_t - rB_{t-1}$  is different from zero. That is, we defined that a household used borrowing if the amount borrowed in  $t$  is different than the amount borrowed in  $t-1$  multiplied by the interest rate.
- In the case of savings, we define that a household used savings if  $S_{t-1} - S_t$  is different from zero. That is, if the stock of savings in  $t$  is different than the amount saved in  $t-1$ .

## Frequency of use

We are going to study the evolution of different financial instruments in Thailand. We selected the following instruments:

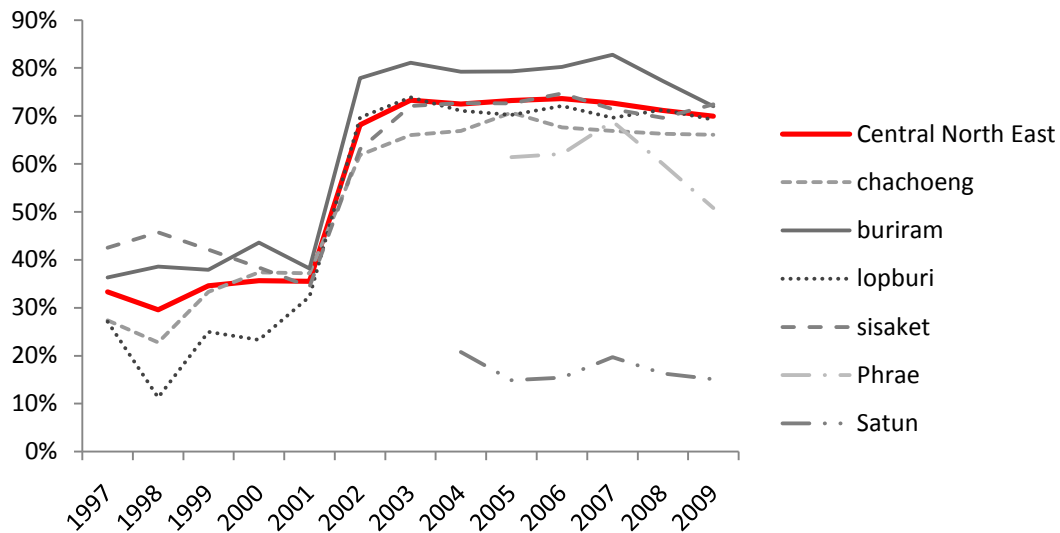
- Formal Borrowings: Includes borrowing from the BAAC, PCG, commercial banks, agricultural cooperatives, rice banks and village funds.
- Borrowing from the BAAC.
- Informal Borrowings: Includes borrowing from a relative, neighbor, storeowner, landlord and moneylender.
- Formal Savings: Includes savings in BAAC, agricultural cooperatives, PCG, commercial banks and rice bank.
- Lending: Income from loan repayments
- Rice Storage.

We compare the average of the four Central North East provinces (Chachoengsao, Buriram, Lopburi and Sisaket) with the information of each province, and from 2004 we also include the information for Phrae and Satun. However, the average was always calculated with only the four CNE provinces.

## Formal Borrowing

For the whole sample, we observe similar levels of use from 1997 to 2001, with a big increase in 2002 to a 68%. The initial trend can be found in Chachoengsao, Buriram and Lopburi, but in Sisaket the use of formal borrowing was declining until 2001. In 2002 the four provinces showed a big increase in the use of formal borrowing due to a village fund policy. Satun has very low use of formal borrowing, but since there is no information prior to 2001, we cannot evaluate the effect of the village fund policy for that province.

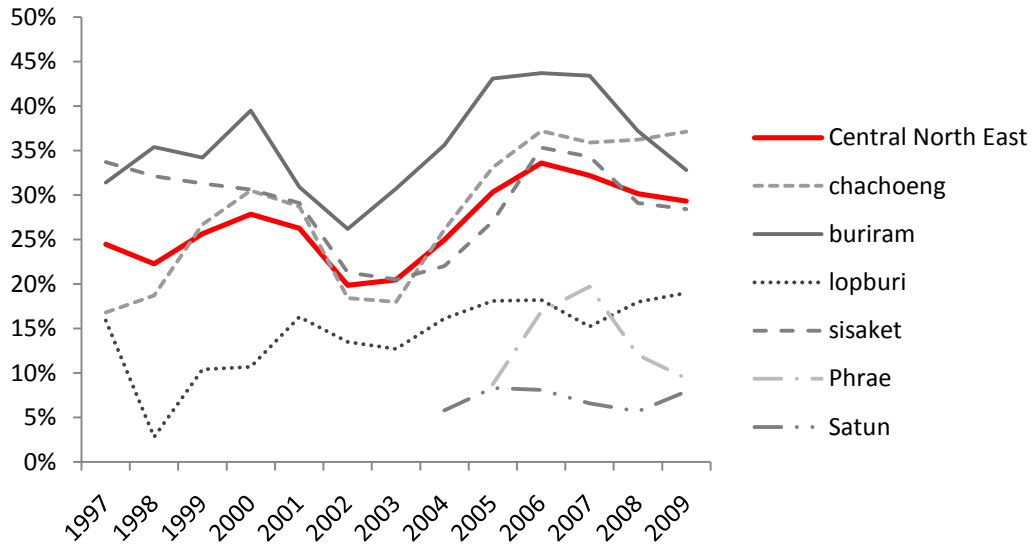
## Use of Formal Borrowing



## BAAC Borrowing

The numbers for the BAAC are relatively stable in the whole sample, slightly increasing from 1998 to 2000, then decreasing until 2002, increasing again until 2006 and with a small drop after that. Chachoengsao and Sisaket exhibit a similar trend, but the other provinces have different patterns, showing also greater variability. There is a peak in BAAC borrowing in 2006 reaching 29% for the whole sample, the province with the highest use was in Buriram with a 44%. The provinces that were included in the year 2005 have lower use of BAAC borrowing than the Central North East provinces.

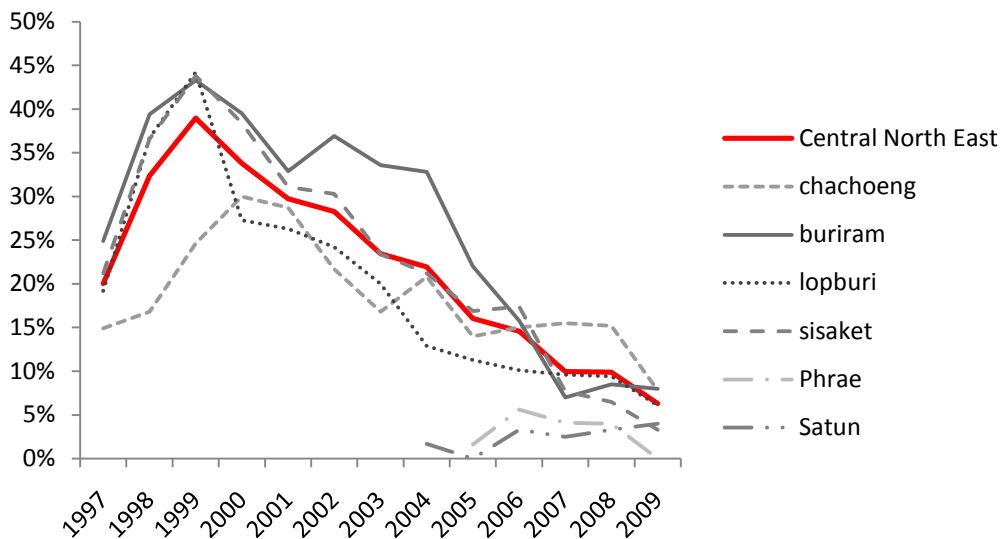
## Use of BAAC Borrowing



### Informal borrowing:

For the Central North East sample there is a maximum in 1998 (39%) and then a decline in the use to reach 5% in 2009. A similar trend can be found in Lopburi and Sisaket and Buriram. IN Chachoengsao the peak was in 2000, but the trend is similar.

## Use of Informal Borrowing

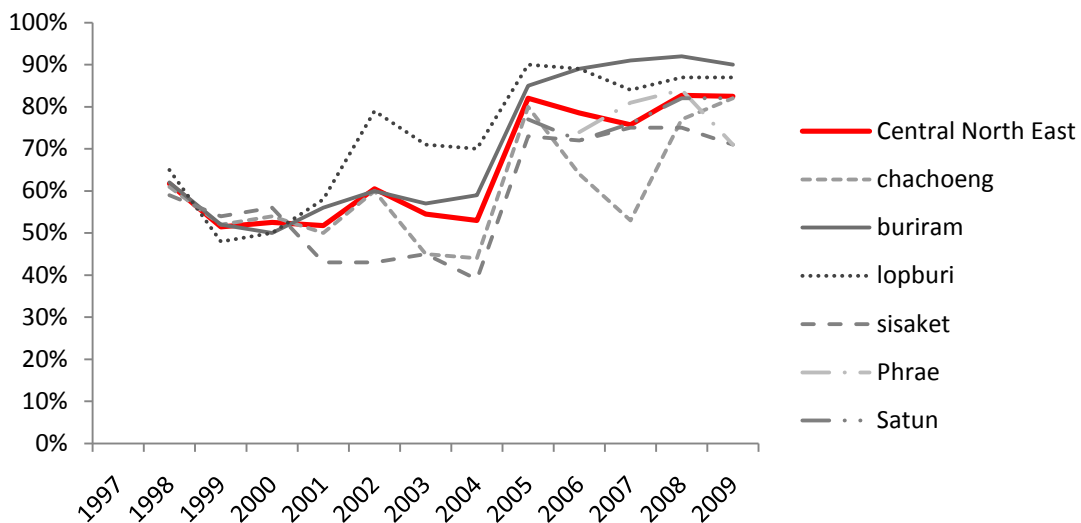


## Formal Saving:

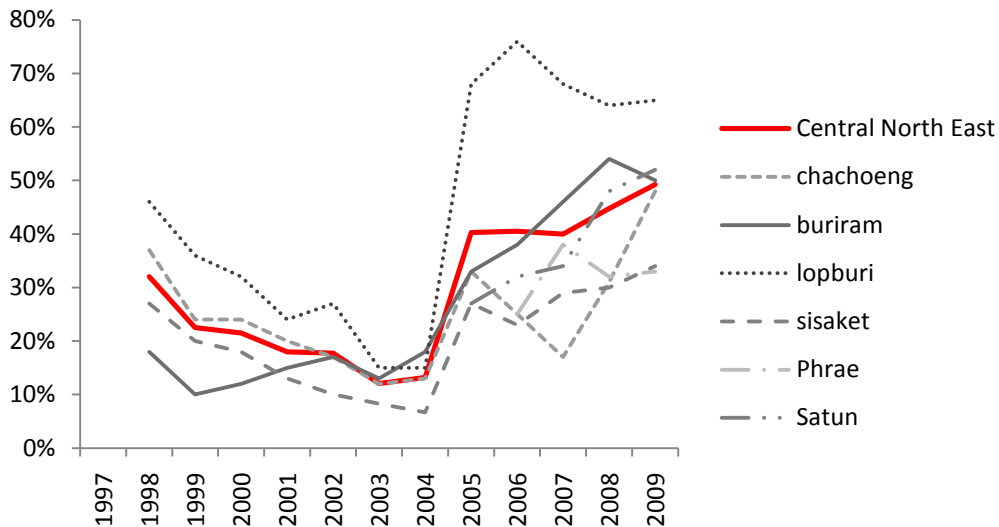
The pattern for the whole sample is similar for all provinces until 2001, after 2001 the pattern of use of saving changes for each province. In most of the provinces we observe an important increase in the use of saving in 2004. Lopburi is the only province that shows a steady increase over time, mainly because the use of PCG savings is high during this period.

The explosive growth in the use of savings can be explained by the massive use since 2004 in commercial banks, BAAC account and agricultural cooperative savings.

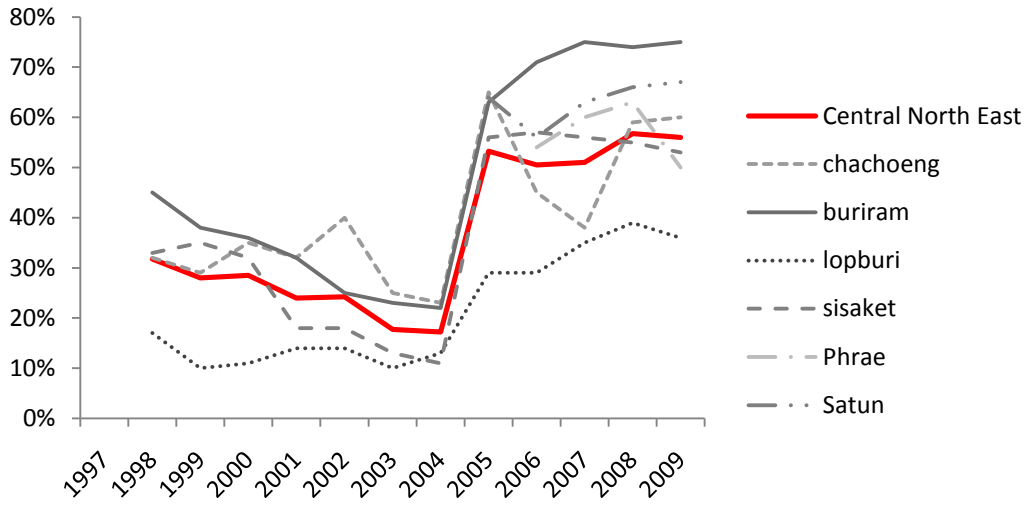
### Use of Formal Saving



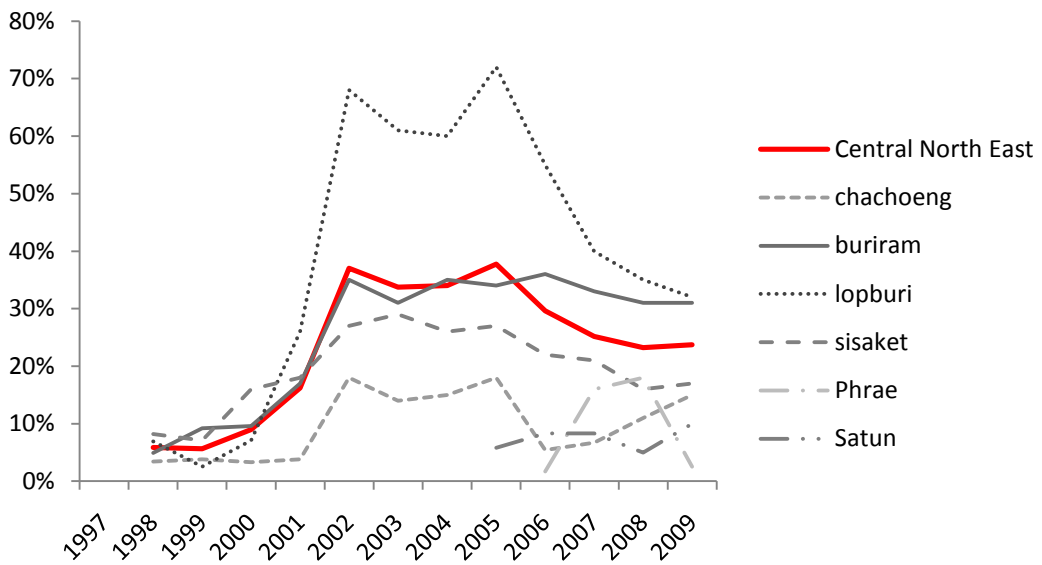
### Use of Com. Bank Saving



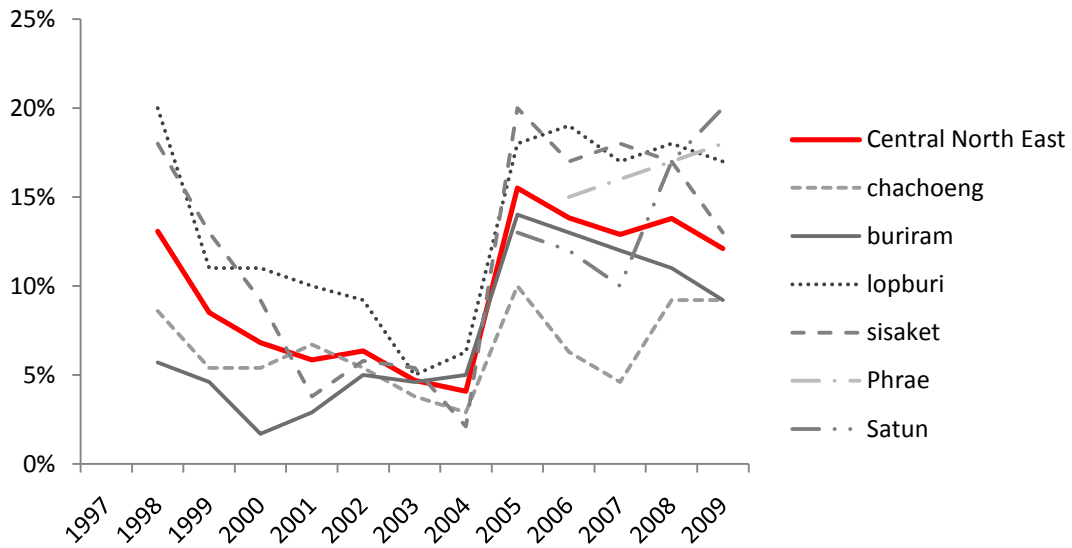
## Use of BAAC Saving



## Use of PCG Saving



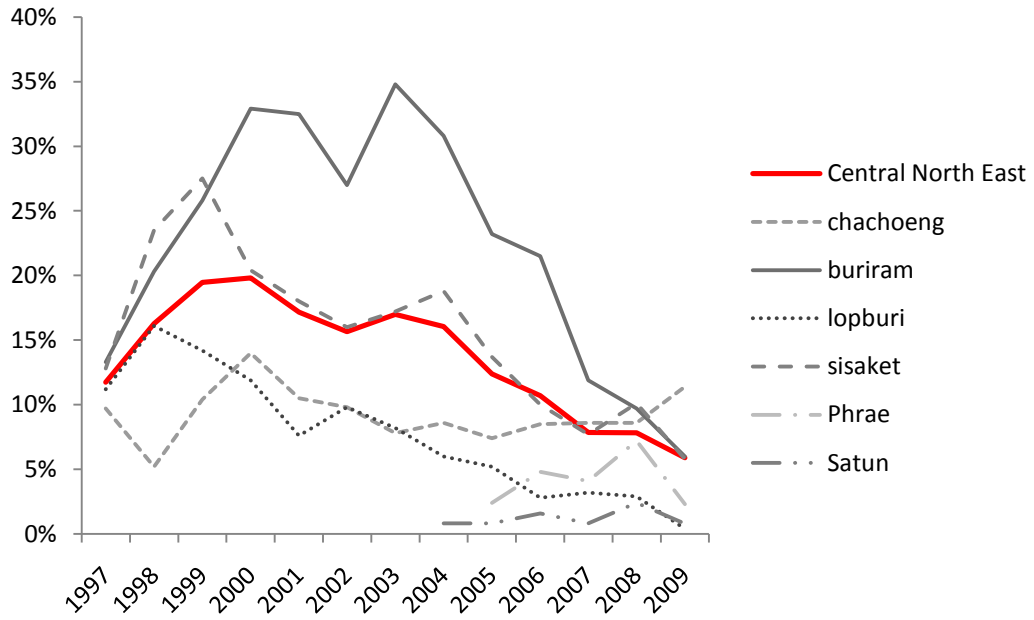
## Use of Ag. Coop. Saving



### Lending

We observe a small increase from 1997 until 2000 (12% to 20%) and then a decline until 2009 (5%). At province level we find a similar pattern in Sisaket, but with higher fluctuations. Buriram shows an increase in the use of lending until 2003 to decrease afterwards. Lopburi shows a big decline in the use of lending for the whole period.

# Use of Lending





## Rice Storage

For the whole sample we observe that rice storage increases until 2002 (54% to 62%), but then decreases until to 2009 (45%). We can see that the decrease in 2003 is due to a decrease in Chachoengsao and Lopburi.

### Use of Rice Storage

