

令和 6 年 6 月 14 日現在

機関番号：12401

研究種目：基盤研究(C) (一般)

研究期間：2018～2023

課題番号：18K01604

研究課題名(和文) Research on the Factors Driving Financial Over-Indebtedness and the Impacts of the Interest Rate Ceiling on the Microfinance Sector: The Cambodian Case and International Comparison Analysis

研究課題名(英文) Research on the Factors Driving Financial Over-Indebtedness and the Impacts of the Interest Rate Ceiling on the Microfinance Sector: The Cambodian Case and International Comparison Analysis

研究代表者

サムレト ソワンルン (Samreth, Sovannroeun)

埼玉大学・人文社会科学研究所・教授

研究者番号：90614371

交付決定額(研究期間全体)：(直接経費) 3,400,000円

研究成果の概要(和文)：本研究では、フィールド調査や現地の関連機関から入手したデータと情報を分析し、カンボジアのマイクロファイナンス部門への貸出上限金利規制が借入家計の借入コストを低下させたことを明らかにした。しかし、上限金利規制後に低所得者層への信用割当が発生した可能性も指摘した。借入額が多い家計ほど債務返済の所得比率が高い傾向が見られた。また、比較的に借入額が少ない家計では、上限金利規制後に借入金額が増加する傾向が見られたため、小口借入を行う家計は規制によってより高い債務負担に直面した可能性があることが分かった。さらに、債務負担を軽減するためには、家計の金融リテラシーの向上が重要であることが確認された。

研究成果の学術的意義や社会的意義

This study contributed to the literature by providing new evidence on the impact of the interest rate ceiling on the microfinance sector in a developing economy. It also provided implications for policymakers regarding the balance between protecting borrowers and enhancing the microfinance sector.

研究成果の概要(英文)：Based on the analysis of data and information from field surveys and relevant institutions, our research found that the imposition of the interest rate ceiling has led to a decline in the average credit costs for microfinance borrowing households. However, the ceiling imposition could result in credit rationing for relatively low-income households. This result is consistent with international experience. The research also confirmed an increase in the average loan amount for relatively low loan amounts. The analysis indicated that higher loan amounts resulted in a higher debt burden (measured as the debt service-to-income ratio). Consequently, for households with relatively small borrowing amounts, the debt burden may have increased after the ceiling imposition. Our research also confirmed the important role of financial literacy in reducing the debt burden among microfinance borrowers.

研究分野：経済学

キーワード：Interest rate ceiling, Microfinance, Financial inclusion, Debt burden

## 1. 研究開始当初の背景

According to the World Bank, many people in the developing world lack access to formal financial services. Financial institutions, such as commercial banks, generally do not want to engage in financial activities with the poor or people living in rural societies because of the high risks, high unit transaction costs, and lack of collateral.

In developing countries, increasing financial inclusion is considered an effective policy approach for reducing poverty and raising people's living standards. Microfinance has played a significant role in enhancing financial inclusion.

Cambodia is not an exception. Over the past few decades, the microfinance sector has played a crucial role in financial inclusion in the country. However, there are also arguments that microfinance activities can have negative consequences, including the increase in debt burden because of high interest rates imposed by microfinance institutions (MFIs), multiple loan takings, and low financial literacy (Schicks, 2010; Rosenberg et al., 2009; Liv, 2013). The concern over the high debt burden among microfinance borrowers has prompted Cambodia to impose a legal interest rate ceiling on microfinance loans of 18% per annum since April 2017.

Although the purpose of the ceiling is to protect borrowers, the ceiling may have negative effects on financial inclusion and the development of the microfinance sector in Cambodia because normally the imposed ceiling rate is lower than the market interest rates. By examining borrowers' debt burden and the effects of the interest rate ceiling, this research aims to answer two main research questions: (1) What factors drive debt burden among borrowers in Cambodia's microfinance sector? (2) How does the interest rate ceiling affect debt burden and microfinance sector development?

## 2. 研究の目的

Although the purpose of imposing the interest rate ceiling on microfinance loans in Cambodia is to reduce the debt burden and over-indebtedness among borrowers, there has been limited examination of its impact. Recognizing this limitation, this research examined the factors driving debt burden among borrowers in the microfinance sector in Cambodia. It also investigated how the imposed interest rate ceiling has affected debt burden and financial inclusion. Additionally, this research reviewed other countries' experiences to gain deeper insights into the impacts of the interest rate ceiling.

We expect that the findings of this study have important implications for policymakers, enhancing our understanding of the potential impacts of the interest rate ceiling on financial inclusion and the development of the microfinance sector.

## 3. 研究の方法

To examine factors affecting debt burden among microfinance borrowers and the impacts of the interest rate ceiling on credit costs and financial inclusion in Cambodia, this research mainly used quantitative methods, including quantile regression, logit regression, and probit regression. For investigating other countries' experiences regarding the imposition of interest rate ceilings, we employed a desk review approach.

We obtained the primary data and information for the analyses in this research from household and field surveys conducted between August 19 and September 20, 2019, in collaboration with the JICA Ogata Research Institute. We also used secondary data from the National Bank of Cambodia (NBC), the Credit Bureau Cambodia (CBC), and the Cambodia Microfinance Association (CMA).

## 4. 研究成果

By analyzing the primary data and information from household and field surveys in 5 provinces in Cambodia (Figure 1) and secondary data obtained from related institutions in Cambodia, the following research results were obtained: The total number of households surveyed was 1,000. They consist of 400 households that had access to microfinance loans before and after the imposition of the interest rate ceiling, 300 households that had access to microfinance loans before the imposition of the interest rate ceiling, and 300 households randomly selected from villages neighboring previous groups.

### (1) Factors affecting debt burden among microfinance borrowers

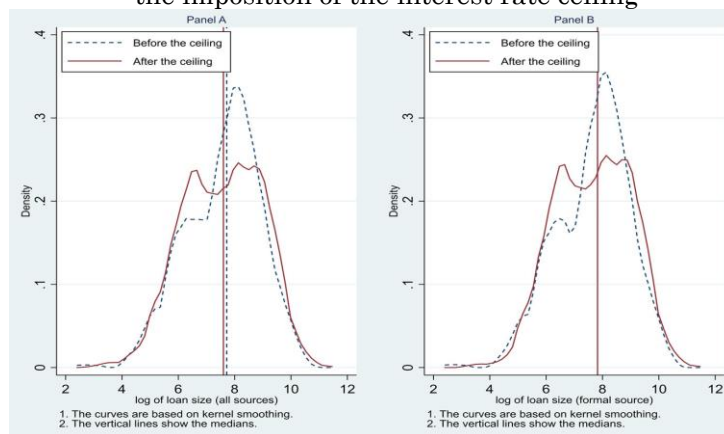
To examine factors influencing debt burden, we used a quantile regression analysis. The



small borrower households. Our papers, Samreth et al. (2021) and Samreth et al. (2023), reported these findings.

Our survey and analysis also indicated that loans from informal sources increased by a few percentage points after the imposition of the interest rate ceiling, reflecting the possibility of credit rationing by formal lenders. Furthermore, households experiencing loan rejection from formal lenders after the imposition of the ceiling cited lack of collateral and low income as the primary reasons. As a result, many of them turned to informal lenders to borrow money.

**Figure 2.** Distributions of loan size before and after the imposition of the interest rate ceiling



**Source:** Samreth et al. (2023)

Using logistic and probit regressions, we also investigated the characteristics of households experiencing loan rejection from formal lenders. Our results indicated that households with lower incomes had a higher probability of loan rejection by formal lenders (i.e., MFIs). Moreover, households with too young members and too old members (i.e., a higher age dependency ratio). Our paper, Samreth et al. (2021), reported these results.

#### (4) International experiences

Many studies have examined the effects of interest rate ceilings in both developed and developing countries. Alper et al. (2019) provided a literature review, indicating that most studies documented the adverse effects of interest rate ceilings on the financial sector. Among others, Gonzalez-Vega (1984) showed that an interest rate ceiling could lead to credit-rationing among microcredit lenders in the agricultural sector. Helms and Reille (2004) found negative effects on poor microfinance borrowers due to credit rationing from high lending costs in 40 developing and transitional countries. According to Madeira (2019), the 2013 interest rate ceiling in Chile may have excluded borrowing households from bank credit. Roa et al. (2022) observed reduced credit for small and medium enterprises in Bolivia. Our paper, Samreth et al. (2023), provides a detailed review of the previous studies.

#### (5) Other research activities

I undertook various activities during this research project to enhance my understanding of the economic development process and the financial sector in Cambodia. I conducted research activities related to dollarization with other researchers, presented the results at academic conferences, and published them in academic journals. To enhance collaborative research activities, I also engaged in a study on the effects of oilfield discoveries on government behavior.

I also conduct co-research on the determinants of interest rates for microfinance loans. We identified factors like loan size per borrower and labor and funding costs as the main factors affecting the effective interest rates of microfinance loans in Cambodia. Furthermore, I engaged in co-research related to the COVID-19 pandemic's impacts in Cambodia. We presented the research outcomes online at a seminar.

#### 引用文献

- Alper, E., Clements, B., Hobdari, N., & Moya, P. R. (2020). Do interest rate controls work? Evidence from Kenya. *Review of Development Economics*, 24, 910-926.
- Gonzalez-Vega, C. (1984). Credit-rationing behavior of agricultural lenders: The iron law of interest-rate restrictions. In D. Adams, et al. (Eds.), *Undermining rural development with*

- cheap credit* (pp. 78-95). Westview Press.
- Helms, B., & Reille, X. (2004). Interest rate ceilings and microfinance: The story so far. CGAP Occasional Paper No. 9.
- Liv, D. (2013). *Study on the drivers of over-indebtedness of microfinance borrowers in Cambodia: An in-depth investigation of saturated areas*. Cambodia Institute of Development Study.
- Madeira, C. (2019). The impact of interest rate ceilings on households' credit access: Evidence from a 2013 Chilean legislation. *Journal of Banking & Finance*, 106, 166-179.
- Roa, M. J., Villegas, A., & Garrón, I. (2022). Interest rate caps on microcredit: Evidence from a natural experiment in Bolivia. *Journal of Development Effectiveness*, 14, 125-142.
- Rosenberg, R., Gonzalez, A., & Narain, S. (2009). The new moneylenders: Are the poor being exploited by high microcredit interest rates? CGAP Occasional Paper No. 15.
- Samreth, S., Aiba, D., Oeur, S., & Vat, V. (2021). Impacts of the interest rate ceiling on microfinance sector in Cambodia: Evidence from a household survey. JICA Ogata Research Institute Working Paper No. 219.
- Samreth, S., Aiba, D., Oeur, S., & Vat, V. (2023). Impact of the interest rate ceiling on credit cost, loan size, and informal credit in the microfinance sector: Evidence from a household survey in Cambodia. *Empirical Economics*, 65, 2627–2667.
- Schicks, J. (2010). Microfinance over-indebtedness: Understanding its drivers and challenging the common myths. Centre Emile Bernheim, CEB Working Paper No. 10/048.

## 5. 主な発表論文等

〔雑誌論文〕 計9件（うち査読付論文 4件／うち国際共著 5件／うちオープンアクセス 7件）

1. 著者名 Samreth, S., Aiba, D., Oeur S. and Vat, V.	4. 巻 65
2. 論文標題 Impact of the Interest Rate Ceiling on Credit Cost, Loan Size, and Informal Credit in the Microfinance Sector: Evidence from a Household Survey in Cambodia	5. 発行年 2023年
3. 雑誌名 Empirical Economics	6. 最初と最後の頁 2627-2667
掲載論文のDOI（デジタルオブジェクト識別子） 10.1007/s00181-023-02443-5	査読の有無 有
オープンアクセス オープンアクセスではない、又はオープンアクセスが困難	国際共著 該当する
1. 著者名 Aiba, D. and Samreth, S.	4. 巻 SU-RCSDEA 2022-001
2. 論文標題 What Explain High Interest Rates in Microfinance Loans? Evidence from the Case of a Newly Introduced Interest Rate Cap Policy in Cambodia	5. 発行年 2022年
3. 雑誌名 Research Center for Sustainable Development in East Asia, Saitama University, Discussion Paper Series	6. 最初と最後の頁 1-29
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 -
1. 著者名 サムレト ソワンルン、藤川 清史	4. 巻 2
2. 論文標題 カンボジアにおける新型コロナウイルス感染症の影響と対応	5. 発行年 2022年
3. 雑誌名 愛知学院大学経済研究所所報	6. 最初と最後の頁 160-173
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 無
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 -
1. 著者名 Aiba, D., Samreth, S., Oeur, S. and Vat, V.	4. 巻 No. 224
2. 論文標題 Impact of Interest Rate Cap Policies on the Lending Behavior of Microfinance Institutions: Evidence from Millions of Observations in the Credit Registry Database	5. 発行年 2021年
3. 雑誌名 JICA Ogata Research Institute Working Paper	6. 最初と最後の頁 1-64
掲載論文のDOI（デジタルオブジェクト識別子） なし	査読の有無 有
オープンアクセス オープンアクセスとしている（また、その予定である）	国際共著 該当する

1. 著者名 Samreth, S., Aiba, D., Oeur, S. and Vat, V.	4. 巻 No. 219
2. 論文標題 Impacts of the Interest Rate Ceiling on Microfinance Sector in Cambodia: Evidence from a Household Survey	5. 発行年 2021年
3. 雑誌名 JICA Ogata Research Institute Working Paper	6. 最初と最後の頁 1-55
掲載論文のDOI (デジタルオブジェクト識別子) なし	査読の有無 有
オープンアクセス オープンアクセスとしている (また、その予定である)	国際共著 該当する

1. 著者名 Samreth, S., Miguel, S. and Ly, S.	4. 巻 No.8893
2. 論文標題 Dollarization Dilemma: Price Stability at the Cost of External Competitiveness in Cambodia	5. 発行年 2019年
3. 雑誌名 World Bank Policy Research Working Paper	6. 最初と最後の頁 1-32
掲載論文のDOI (デジタルオブジェクト識別子) なし	査読の有無 無
オープンアクセス オープンアクセスとしている (また、その予定である)	国際共著 該当する

1. 著者名 Okada, K. and Samreth, S.	4. 巻 22
2. 論文標題 Oil Bonanza and the Composition of Government Expenditure	5. 発行年 2021年
3. 雑誌名 Economics of Governance	6. 最初と最後の頁 23-46
掲載論文のDOI (デジタルオブジェクト識別子) 10.1007/s10101-020-00246-3	査読の有無 有
オープンアクセス オープンアクセスではない、又はオープンアクセスが困難	国際共著 -

1. 著者名 Samreth, S. and Okuda, H.	4. 巻 65
2. 論文標題 Economic Growth and Dollarization in Cambodia	5. 発行年 2019年
3. 雑誌名 アジア研究	6. 最初と最後の頁 61-78
掲載論文のDOI (デジタルオブジェクト識別子) 10.11479/asianstudies.65.1_61	査読の有無 無
オープンアクセス オープンアクセスとしている (また、その予定である)	国際共著 -

1. 著者名 Samreth, S. and Sok, P.	4. 巻 156
2. 論文標題 Revisiting the Impacts of Exchange Rate Movement on the Dollarization Process in Cambodia	5. 発行年 2019年
3. 雑誌名 Social Science Review (Saitama University)	6. 最初と最後の頁 119-134
掲載論文のDOI (デジタルオブジェクト識別子) なし	査読の有無 無
オープンアクセス オープンアクセスとしている (また、その予定である)	国際共著 該当する

〔学会発表〕 計8件 (うち招待講演 1件 / うち国際学会 3件)

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Impact of the Interest Rate Ceiling on Credit Cost, Loan Size, and Informal Credit in the Microfinance Sector: Evidence from a Household Survey in Cambodia
3. 学会等名 Singapore Economic Review Conference 2022 (国際学会)
4. 発表年 2022年

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Impacts of COVID-19 in Cambodia and National and International Responses
3. 学会等名 Aichi Gakuin University (AGU)-Royal University of Phnom Penh (RUPP) Online Joint Seminar
4. 発表年 2021年

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Impacts of Interest Rate Ceiling on Microfinance Sector in Cambodia: Evidence from a Household Survey
3. 学会等名 Cambodia's Interest Rate Ceiling Committee Meeting (招待講演)
4. 発表年 2021年



1. 発表者名 Sovannroeun Samreth
2. 発表標題 Impacts of Interest Rate Ceiling on Microfinance Sector in Cambodia: Evidence from a Household Survey
3. 学会等名 Workshop organized by the National Bank of Cambodia and the Cambodia Microfinance Association
4. 発表年 2020年

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Impacts of Interest Rate Ceiling on Microfinance Sector in Cambodia: Preliminary Results from a Household Survey
3. 学会等名 JICA-RI Lunch Seminar
4. 発表年 2020年

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Livelihood of the Poor in Cambodia: Evidence from a Study of Financial Diaries in a Commune
3. 学会等名 JICA-RI Lunch Seminar
4. 発表年 2019年

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Dollarization Dilemma: Price Stability at the Cost of External Competitiveness in Cambodia
3. 学会等名 Singapore Economic Review Conference 2019 (国際学会)
4. 発表年 2019年

1. 発表者名 Sovannroeun Samreth
2. 発表標題 Revisiting the Impacts of Exchange Rate Movement on the Dollarization Process in Cambodia
3. 学会等名 The 16th International Convention of the East Asian Economic Association (国際学会)
4. 発表年 2018年

〔図書〕 計0件

〔産業財産権〕

〔その他〕

-

6. 研究組織

氏名 (ローマ字氏名) (研究者番号)	所属研究機関・部局・職 (機関番号)	備考
---------------------------	-----------------------	----

7. 科研費を使用して開催した国際研究集会

〔国際研究集会〕 計0件

8. 本研究に関連して実施した国際共同研究の実施状況

共同研究相手国	相手方研究機関
---------	---------