The Impact of the COVID-19 Pandemic on Household Debt in Thailand
ผลกระทบจากการแพร่ระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ที่มีต่อหนี้ครัวเรือนไทย

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Abstract

This academic paper is a quantitative study to describe the impact of the Coronavirus 2019 (COVID-19) epidemic on Thai households' debt. The data used in this study is from the Bureau of Trade and Economic Indices, the Ministry of Commerce, the Office of the National Economic and Social Development Council, and the Bank of Thailand. The period under study is between the first quarter of 2020 and the second quarter of 2021. This paper analyzed the quantitative data by using the least squares regression analysis (Ordinary Least Square; OLS). The results showed that during the epidemic, from Q1 2020 to Q2 2021, the total household debt rose 5.2% compared to the pre-COVID-19 period. Thai households at risk of default increased by 2.74% during the pandemic and the pandemic crisis slowed household loans: loan growth declined 0.79%, compared to pre-COVID quarterly growth. These combined effects could lead to financial instability and lower consumption, further delaying recovery from the COVID-19 recession.

Keywords: Household Debt, COVID-19 Pandemic, Thailand

บทคัดย่อ

บทความวิชาการนี้เป็นการศึกษาเชิงปริมาณเพื่ออธิบายถึงผลกระทบจากการแพร่ระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ที่มีผลต่อหนี้ครัวเรือนไทย โดยมีวัตถุประสงค์เพื่ออธิบายผลกระทบจากเหตุการณ์การระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ที่มีผลกระทบต่อเนื่องต่อหนี้ครัวเรือนไทย โดยข้อมูลที่ใช้ในการศึกษานี้มาจากสำนักดัชนีเศรษฐกิจการค้า กระทรวงพาณิชย์ สำนักงานสภาพัฒนาการเศรษฐกิจและสังคมแห่งชาติ และธนาคารแห่งประเทศไทย ในช่วงระหว่างไตรมาสแรกของปี 2556 ถึงไตรมาสที่สองของปี 2564 โดยการวิเคราะห์ข้อมูลเชิงปริมาณแบบการวิเคราะห์การถดถอยด้วยวิธีกำลังสองน้อยที่สุด (Ordinary Least Square; OLS) ผลการศึกษาพบว่าในช่วงการแพร่ระบาด ตั้งแต่ไตรมาสที่ 1 ปี 2563 ถึงไตรมาสที่ 2 ปี 2564 ยอดหนี้ครัวเรือนรวมสูงขึ้น 5.2% เมื่อเทียบกับช่วงก่อนการระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ครัวเรือนไทยมีความเสี่ยงต่อการผิดนัดชำระหนี้

เพิ่มขึ้น 2.74% ในช่วงการระบาดใหญ่และวิกฤตโรคระบาดทำให้สินเชื่อภาคครัวเรือนชะลอตัว การเติบโตของสินเชื่อลดลง 0.79% ต่อไตรมาส เมื่อเทียบกับระดับการเติบโตต่อไตรมาสก่อนการระบาด ผลกระทบที่รวมกันเหล่านี้อาจนำไปสู่ความไม่มั่นคงทางการเงินและการบริโภคที่ลดลง ทำให้การฟื้นตัวจากภาวะถดถอยภายหลังการการระบาดของโรคติดเชื้อไวรัสโคโรนา 2019 (COVID-19) ล่าช้าออกไป

คำสำคัญ: หนี้ครัวเรือน, การระบาดของโรคติดเชื้อไวรัสโคโรนา 2019, ประเทศไทย

Introduction

Households increase and reduce saving and debt based on expected patterns during their life cycle in order to consume more or finance necessary expenditures, for example education of children, real estate investment, purchase of vehicle, and other similar types of investment. Those patterns may be disrupted by events that could not be anticipated, such as economic crises, political unrest, and any other significant economic or non-economic disruption. In this sense, an unforeseen pandemic, such as the current COVID-19 event, share a resemblance to a financially disruptive economic shock, in a similar way of a credit crunch (Newmeyer, Warmath, O'Connor & Wong, 2021).

Furthermore, past research shows that the build-up of household debt have magnified the negative effect of past crises, particularly by reducing consumption during the downturn (Green, Rice-Jones, Venables & Wukovits-Votzi, 2021). Therefore, understanding how the COVID-19 impacted household debt levels is fundamental in order to develop policies to alleviate present and future financial distress. It is expected that the spread of the COVID-19 and many of the policy measures put in place to contain the economic downturn caused by the pandemic have potentially increase household debt (Mamatzakis, Ongena, & Tsionas, 2021). How households have adjusted their consumption patterns, including the use of loans to finance purchases, is a question not yet answered by the literature, as this still a running event.

Over the past decade Thailand's av erage household debt has raised rapidly, a trend potentially aggravated by the negative economic impact of the COVID-19 pandemic. This trend is revealed by the ratio of household debt to GDP that has increased from 77.7 percent at the be ginning of 2018 to 90.6 percent at the first quarter of 2021, with a slight decrease to 89.3 percent in the second quarter of 2021, as observed in Figure 1. The full effect to the COVID situation is yet to be fully disclosed, as we still under its influence. However reports by the Bank of Thailand show that the high level of household debt may affect the credit quality of financial institutions and put pressure on the recovery of the Thai economy in the year of 2022. In particular, the government should prepare for measures to slow down new debt in order to improve the household debt situation (Bank of Thailand, 2021a, b, c).

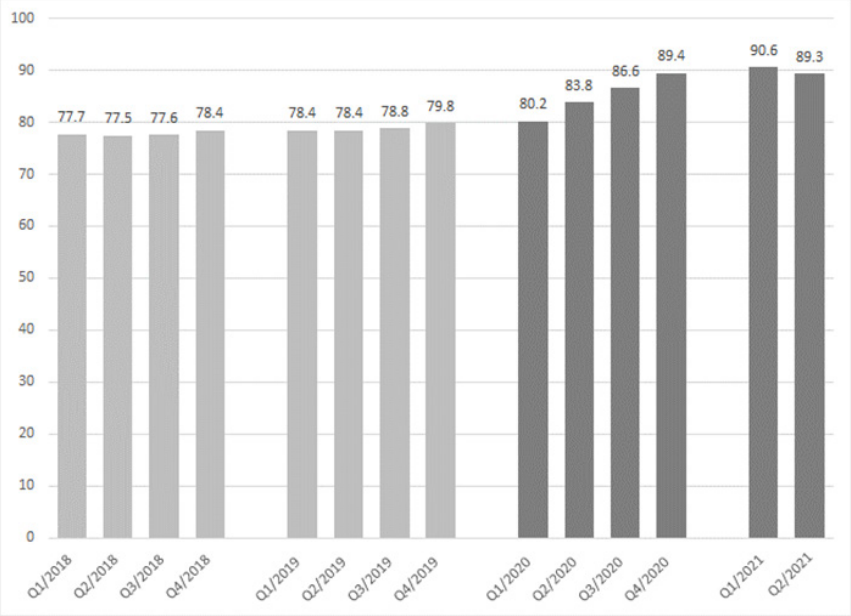

Figure 1 *Quarterly Household Loans to GDP in Thailand, 2018-2021*

Note: *This figure presents the percentage of total quarterly household debt to GPD in Thailand. Bank of Thailand, 2021*

In order to disclose the consequences of the COVID-19 pandemic on the financial stability of Thai households, particularly regarding the impact of the increasing debt, we carried on a series of regression tests focusing on the issue of debt size, non-performing loans, and banks' lending growth. In this sense, this paper objective is to cover an important gap in the literature, as there are few studies made on the impact of COVID-19 pandemic on household debt from a quantitative standpoint, specifically in countries outside of Western Europe and North America. The major hypotheses on this paper are that debt is higher under the pandemic, and there is an increasing households' risk of financial default. However, we also expect that the COVID shock will lead to a slowdown in banks' lending rates, as borrowers reduce consumption of large items due to uncertainty about the future (Çolak & Öztekin, 2021).

The outcomes presented confirm the expectations introduced above. While both total debt and non-performing loans are higher under the COVID-19 pandemic, the growth speed of bank loans was reduced, a phenomenon that could be observed around the world during the same period and circumstances (Çolak & Öztekin, 2021).

Literature review

Households demand is the main re ason behind their need for loans. In this regard, Modigliani and Brumberg (1954) life-cycle model of consumption smoothing was one of the first studies that investigated household expenditure behavior. The model demonstrates that hou seholds will attempt to smooth consumption over their lifespan. However, income is uneven over time, leading to an also uneven saving and borrowing rates. In the begging of the life cycle households will have a lower borrowing rate, with an increasing rate later in the period, and finally,

a lower rate, sometimes negative, in later years. Because of this fluctuation, household will feel compelled to borrow in order to complement their earnings and smooth income over time. One great problem household face is that of un certainty in earnings. If there is a disruption on the regular cycle of income, saving, and borrowing, households may face financial distress, which in turn would affect the economy as a whole (Lim, 2019; Altman, 2021).

The literature dealing with the specific problem of how COVID-19 is affecting household debt is not very extensive, as one could expect for an event that still taking place at the moment we write this paper. Because of this, studies on the matter may not have reliable models to capture the dynamics based on historic or modern debt market developments. Nevertheless, a collection of studies relevant to this paper are described below.

Some of the papers focus on the policies adopted by governments in order to reduce the impact of the COVID-19 recession on households' debt. Franklin et al. (2021) show that there is no clear evidence that household debt in the United Kingdom was significantly affected by the COVID-19 crisis. They argue that government support to incomes and delay of loan payments helped to reduce the impact of the current shock. Nevertheless, some households, particularly of those in the low income range, have strived against unemployment and unsecured loans. They conclude that both COVID-19 and the measures to mitigate its impact had a positive effect on households' consumption. Similarly, Cahill & Lydon (2021) concluded that the Irish COVID-19 income support had a beneficial role in maintaining the debt ratios stable. Mamat zakis et al. employ (2021) a time-varying para meter Bayesian model using a sample from 168 countries in order to determine if policymakers are adequately responding to households' financial needs during the COVID-19 crisis by the use of non-pharmaceutical interventions (NPIs). They conclude that policymakers are not adapting fast enough their policies to respond to households' debt distress.

Madeira (2020) develops an expanded analysis by adding the 2019-2020 social explosion crisis in Chile to the COVID-19 shock, and measures their influence on the Chilean households' ability to repay loans. His simulation model shows that delinquency risk increased as a result of both, the "Social Explosion" and COVID pandemic. He concludes that without adequate policy measures, the pandemic crisis would raise delinquency from 3.2% to 4.4%. The author adds in Madeira (2021) that income and expense support was the most important governmental policy used to reduce the impact of debt on households. In another study based on a non-central economy, Botlíková, Botlík, & Stuchlíková (2021) measure the impact of the pandemic on both savings and loans in the Czech Republic. They establish that households' savings declined due to the crisis. Regarding loans, consumer and mortgage loans reduced their growth, while other loans increased their growth. They conclude that the demand of loans is directly correlated to income, and inversely to interest rates.

Few studies utilize regression models to determine the impact of the COVID-19 on hou sehold loans. Çolak & Öztekin (2021) measure the impact of the pandemic on bank lending patterns using a world-wide sample from 125 countries. In their model the COVID-19 shock is represented by a dummy variable, which varies over time and across countries. Their findings

reveal that bank loan growth declined globally as a result of the COVID-19 situation. Additionally, they demonstrate that the larger the impact of the pandemic, the larger the fall in bank loans. Kurowski (2021) conducted a survey in a sample of 1300 people in Poland, and analyzed the answers using a multinomial logistic regression. This author emphasizes the importance of preparation and financial literacy against unexpected decline in household earnings, concluding that lower debt management knowledge has a negative impact in debt situation of households, particularly those belonging to individuals in the oldest age groups.

Methodology

The population analyzed in the study includes all Thai households that acquired debt on the period from January 2013 to June 2021, subdivided in quarters according to the data ava ilable on the Bank of Thailand website, statistics section. The dependent variables in the analysis are based on both: a) loans to household classified by purpose, which includes real estate purchase, vehicle purchase and hire purchase, education loans, and other personal consumption loans, of which credit card and personal loans are also included, and b) gross non-performing loans (NPLs) outstanding for personal consumption, inclu ding housing, automobile, credit card, and other personal loans, as a measure of debt distress.

The data was collected from the Bureau of Trade and Economic indices Ministry of Commerce Thailand (Consumer Price Index), the Office of The National Economic and Social Development Council (Gross Domestic Product and private final consumption expenditure), and the Bank of Thailand (all remaining variables). The data under analysis range from the first quarter of 2020 to the second quarter of 2021, re sulting in a total of 34 observations. Out of these observations, the time from the first quarter of 2020 to the second quarter of 2021 is considered to be the COVID-19 affected period, in a total of six observations.

The methodology employed in this paper is adapted from that found in Çolak & Öztekin (2021), Abd Samad, Mohd Daud & Mohd Dali (2020), Abid & Shafiai (2018) and Anderloni, Bacchiocchi, & Vandone (2012). The first model is adapted from Abd Samad et al. (2020): $HD_{i,t} = \alpha + \beta(LDG_{i,t-1}) + \gamma(GDPPC_{i,t}) + \delta(INF_{i,t}) + \lambda(ALR_{i,t}) + \mu(UN_{i,t}) + \tau(CON_{,t}) + \varphi(CVD_{i,t}) + \varepsilon_{i,t}$ (1)

Where the dependent variable HD is a proxy for household debt, representing the log of all loans for personal consumption in Thailand, including loans for real estate purchase, loans for vehicle purchase or hire purchase, edu cation loans, credit card loans, and other personal loans. Besides that, α is constant term, LDG is the one-lagged proportion of household debt to GDP, as measured by the percentage of total household loans to GDP. GDPPC is GDP per capita in Thailand for each quarter in the period under study and serves as a proxy for income. INF is the General Consumer Price Index (CPI) for the whole country of Thailand (base year 2019), used as a proxy for inflation rate, ALR is the Average Lending Rate of commercial banks, UN is the Unemployment Rate, and CON is the log of private final consum ption expenditure, used as a proxy for household consumption. CVD is a dummy variable which takes the value of 1 in quarters impacted by the COVID-19 pandemic, and 0 otherwise. CVD will be used to determine if there are differences in household debt in the periods before and after COVID-19. The ε is the error term of the equation.

A second model was developed ha ving Non-Performing Loans as the independent

variable, and will be used to determine financial vulnerability of Thai households to the COVID-19 shock. $NPL_{i,t} = \alpha + \beta(DGDP_{i,t}) + \gamma(GDP_{i,t}) + \delta(INF_{i,t}) + \lambda(ALR_{i,t}) + \mu(UN_{i,t}) + \tau(CON_{,t}) + \varphi(CVD_{i,t}) + \varepsilon_{i,t}$ (2)

Where NPL is the log of Non-Performing Loans, utilized as a proxy for households' financial vulnerability, and DGDP is the proportion of household debt to GDP, and GDP is the log of the Gross Domestic Product of Thailand, base year 2002. All other variables follow the pattern in equation (1). Model (2) is based on Anderloni et al. (2012) and Abid & Shafiai (2018). Those authors found that household debt (consumer credit), falling income, rising household debt, inflation, high interest rates, and unemployment negatively impact household financial vulnerability. CVD will be used to determine if there are differences in households' financial distress due to debt caused by the pandemic.

A third model was based on the study by Çolak & Öztekin (2021). Those authors me asured how the COVID-19 pandemic is affecting bank loans. Their aggregated database of 125 cou ntries was divided for analysis in U.S. and non-U.S. samples. The outcome of the study shows that the pandemic lowered loan growth worldwide and in the United States. These authors employed a panel fixed effects regression approach to measure banks loan supply. They utilized a dummy variable to measure the effects of the pandemic on bank lending. Model (3) is described below.

$GLOAN_{i,t} = \alpha + \beta(GGDP_{i,t-}1) + \gamma(GDPPC_{i,t}) + \delta(GVB_{i,t}) + \lambda(SIZE_{i,t}) + \mu(SOLV_{i,t}) + \varphi(CVD_{i,t}) + \varepsilon_{i,t}$ (3)

Where GLOAN is the quarterly growth rate of total loans, where loans refer to total loans for personal consumption in Thailand, a proxy for households borrowing. GGDP is GDP growth rate and GDPPC is GDP per capita. GVB is government bond rate, based on a 10-year T-Bill bond yield. SIZE is the natural logarithm of banks total assets. SOLV is solvency ratio showing how much of a bank's assets are made of liabilities and will be used as a proxy for banks financial health. CVD is a dummy variable which takes the value of 1 in quarters impacted by the COVID-19 pandemic and 0 otherwise, used to indicate the differences in growth rate on the periods before and during the pandemic.

Models (1), (2), and (3) will be tested by applying the Ordinary Least Square (OLS) method. The OLS is a generalized linear modeling approach commonly employed to test hypotheses of differences among single or multiple expla natory variables, including categorical explanatory variables, in repeated measures data.

Table 1

Summary of Variables

Variable	Model	Type	Definition	Expected Sign
HD	(1)	Dependent	Natural log of total household debt	NA
LDG	(1)	Control	Lagged proportion of household debt to GDP	+
GDPPC	(1),(3)	Control	Natural log of GDP per capita in for each quarter	-
INF	(1),(2)	Control	General Consumer Price Index (CPI)	-
ALR	(1),(2)	Control	Average lending rate of commercial banks	-
UN	(1),(2)	Control	Unemployment rate	-
CON	(1),(2)	Control	Natural log of private final consumption expenditure	+
CVD	(1),(2)	Control	Dummy variable for quarters of COVID-19 pandemic	+
NPL	(2)	Dependent	Natural log of Non-performing loans	NA
DGDP	(2)	Control	Proportion of household debt to GDP	+
GDP	(2)	Control	Natural log of the Gross Domestic Product	+
GLOAN	(3)	Dependent	Quarterly growth rate of household loans	NA
GGDP	(3)	Control	GDP growth rate from previous quarter	+
GVB	(3)	Control	Government bond rate (10-year T-Bill bond yield)	-
SIZE	(3)	Control	Natural log of banks total assets	+
SOLV	(3)	Control	Solvency ratio (liabilities by assets)	+
CVD	(3)	Control	Dummy variable for quarters of COVID-19 pandemic	-

Findings

Table 2 displays the results of the Model (1). This model is adapted from that found in Abd Samad et al. (2020). Those authors modeled their equation on the life-cycle approach (Modigliani. & Brumberg, 1954): households increase their demand for loans when income is below average, in order to smooth consumption during their lifetime. Most of the results in Table 2 confirm the model expectations. Particularly, the variable GDPPC, a proxy for income, and ALR, the lending rate, have an inverse relation with household borrowing, as predicted by the life-cycle consumption model: the higher the income and the lending rate, the lower the borrowing, and vice-versa.

Table 2

Determinants of Household Debt in Thailand - Model (1)

Variables	*Coefficient*	*t-value*	*Sig.*
LDG	0.0292	3.56	0.001***
GDPPC	-0.4638	-4.33	0.000***
INF	0.0191	1.26	0.218
ALR	-0.1387	-2.34	0.027**
UN	-0.0035	-0.82	0.419
CON	0.4593	3.73	0.001***
CVD	0.0520	4.96	0.000***
Constant	1.5723	2.74	0.011**

Number of observations = 34
F-value = 100.87
F (sig.) = 0.0000
R-squared = 0.9474
Adj *R*-squared = 0.9380
Dependent Variable = *Household Debt*
*,**,*** denote significance at 10%, 5%, and 1%

Regarding the COVID-19 pandemic shock, the dummy variable CVD reveals a positive coefficient. When contrasted against the pre-COVID years, total household debt is higher by 5.2% under the COVID-19 shock. This result confirms the fact that the average household debt is significantly higher in average during the COVID-19 situation compared to the pre-COVID time. For all pre-pandemic quarters in the period under study, household debt averaged baht 5,781,074 million (deflated values), against baht 6,972,898 million under COVID. When we measure an equal time length of six quarters pre-COVID (Quarter 3 2018 to Quarter 4 2019), the household loans total volume still lower, with baht 6,416,916 million in average per quarter. Therefore, total household debt has a larger weight under the pandemic.

Table 3 presents the results for the Model (2) multiple regression of the determinants of household financial vulnerability in Thailand, including the period under the COVID-19 pandemic. Household financial vulnerability is determined by the capability that a household has to recover from financial instability. Some examples of financial changes that a household may be subject to include reduction of income, unemployment, and increase in expenditures. Typically, debt has the potential to increase expenditures by loan payments, or even lead to bankruptcy and loss of income (Abid & Shafiai, 2018). The disruption created by a shock like the one caused by the COVID-19 pandemic would be a major cause of instability in the flow of income to households, therefore increasing the potential of financial distress. Model (2) is based on that found in Abid & Shafiai (2018) and Anderloni, Bacchiocchi, & Vandone (2012).

Table 3

Determinants of Household Financial Vulnerability in Thailand - Model (2)

Variables	*Coefficient*	*t-value*	*Sig.*
DGDP	0.0154	4.68	0.000***
GDP	2.1976	5.68	0.000***
INF	0.0008	0.61	0.552
ALR	-0.1765	-3.60	0.002***
UN	-0.0319	-1.62	0.122
CON	2.9115	3.51	0.001***
CVD	0.0474	3.91	0.002***
Constant	-8.3367	-4.93	0.000***

Number of observations = 34
F-value = 41.11
F (sig.) = 0.0000
R-squared = 0.8501
Adj *R*-squared = 0.8294
Dependent Variable = *Non-Performing Loans (NPL)*
*,**,*** denote significance at 10%, 5%, and 1%

As in Table 2, most of the results in Table 3 confirm the model predictions. Notably, DGDP, the ratio of household debt to GDP, reveals that the growing proportion of debt to income is fundamental in increasing non-performing loans, therefore increasing pressure on households' financial stability, thus raising their vulnera bility. Regarding the CVD dummy variable, it is ap parent that the vulnerability to debt of Thai hou seholds is 4.74% higher during the pandemic when contrasted with the pre-COVID period.

These results confirm the raw data where the average Non-Performing Loans was baht 67,463 million per quarter (deflated values), considering the period from the first quarter of 2013 and the fourth quarter of 2019, and baht 97,828 million in average from the first quarter of 2020 to the second quarter of 2021. Comparing equal lengths of six quarters pre-pandemic, the average NPL was baht 82,287 million per quarter, still below the average under COVID. These results clearly disclose the danger of bankruptcy threatening Thai households, emphasizing the risk of loans payment default.

Table 4 presents Model (3) outcome, based on Çolak & Öztekin (2021). The results confirm the prediction that the COVID-19 pandemic would have a negative impact on the growth of bank lending. The CVD variable, a dummy for the COVID plagued period, shows a negative coefficient of -0.0079, indicating that bank loans growth was reduced by 0.79% under the pandemic. This outcome is lower than the 1.04% worldwide decrease in loans growth found in Çolak & Öztekin. However it is larger than that faced by banks in United States, which had their lending reduced by 0.69%.

These findings demonstrate that the impact of COVID-19 on bank lending was less severe in Thailand than in other countries in average. Nevertheless, the result confirms the worldwide trend of slowing loans growth. The analysis of the raw data by quarter show similar results. Loan growth was 1.59% per quarter in the period before the COVID shock, and 0.91% per quarter under COVID. If we consider only the six quarters before COVID, in order to have a similar extent of time to compare, the average loan growth was 1.68% per quarter.

Table 4

Effect of COVID-19 pandemic on Loans to Households - Model (3)

Variables	*Coefficient*	*t-value*	*Sig.*
GGDP	0.0067	5.21	0.000***
GDPPC	-0.6095	-2.95	0.007***
GVB	-0.0067	-3.19	0.003***
SIZE	23.4250	2.37	0.027**
SOLV	11.1341	2.35	0.028**
CVD	-0.0079	-3.11	0.004***
Constant	-11.43281	-2.47	0.021**

Number of observations = 34
F-value = 18.62
F (sig.) = 0.0000
R-squared = 0.8901
Adj *R*-squared = 0.8423
Dependent Variable = *Growth in Household Loans*
*,**,*** denote significance at 10%, 5%, and 1%

Out of the remaining variables, the only one that stands out is GVB, the government bond indicator. The negative signal goes in opposite direction of the results found for the worldwide sample. However, the United States sample also shows a negative relation between government bond return and loan growth (Çolak & Öztekin, 2021). In order to determine the causes of this discrepancy further research is necessary.

Conclusion

The results of the regression analysis confirm the general expectations set on this paper: (a) household debt is higher under COVID-19, (b) household vulnerability increased after the begging of the pandemic, but (c) the growth rate for loans to households decreased. This apparent contradiction happens because (a) and (b) are a function of the persistence of past debt growth (Wood, 2020), while (c) is caused by uncertainty brought by an economic shock (Çolak & Öztekin, 2021). Furthermore, when we examine (a) and (b), we must also consider the retraction in Thai GDP during the pandemic period, event that much increased the ratio of household debt to GDP. However, the exactly connection between those factors require further study.

Discussion

The coefficients for the dummy variable in the three regression models revealed that during the period from the first quarter of 2020 to the second quarter of 2021, the COVID-19 pandemic period, (1) total household debt is higher by 5.2%, (2) Thai households vulnerability to loan default of is 4.74% higher during the pandemic and, in contrast, (3) the COVID-19 shock caused bank loans to slowdown, as loan growth was reduced by 0.79% per quarter, when compared to growth per quarter before the pandemic event.

The exactly consequences of these three factors is yet to be fully experienced, as the pandemic still an ongoing matter. Also, it is clear that a study on the effectiveness of mitigation measures launched by Thai policymakers would be fundamental in a post-COVID analysis of the pandemic crisis. However, this topic is beyond the scope of this study.

In general, we can observe that high household debt and high debt default may lead to financial instability and reduced consumption, further aggravating the economic downturn and potentially leading to recession, which would further delay the recovery from the COVID-19 economic crisis. Nevertheless, the reduction in the growth speed of bank loans signals a possible future improvement in the household debt to GDP ratio, improving the vulnerability to debt of Thai households. This information could help Thai policymakers determine what type of policy could be used to greater impact in future similar situations.

Recommendations

The lasting consequences of the three factors, total debt, debt vulnerability, and bank loans slowdown, is yet to be fully experienced, as the pandemic still an ongoing matter. In order to fully understand the consequences of COVID-19 on household debt a post-pandemic study in ne

cessary to determine how all the factors described above will interact in the near future. Such study should focus on the existence of any persistent effect that could affect the economy the coming years, and help to develop government policies to would mitigate any negative outcome.

In conclusion, it is clear that a study on the effectiveness of the current mitigation measures launched by Thai policymakers would be fundamental in a post-COVID analysis of the pandemic crisis. However, this topic is beyond the scope of this study.

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