A Paper Series on Thailand's Household Debt through the Lens of Credit Bureau Data:

Microscopic View of Debt and Delinquency

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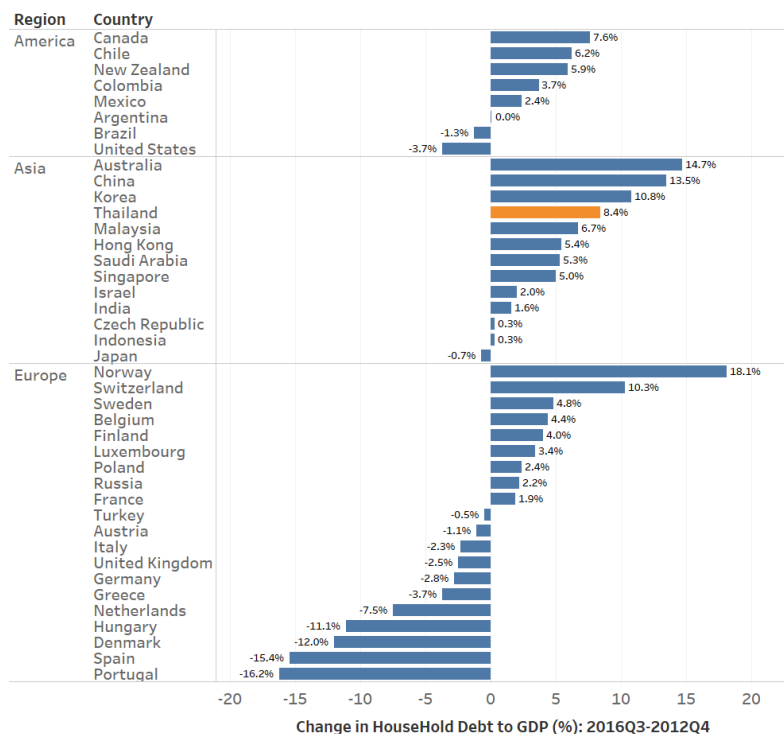
PIER Economic Seminar

23 June 2017

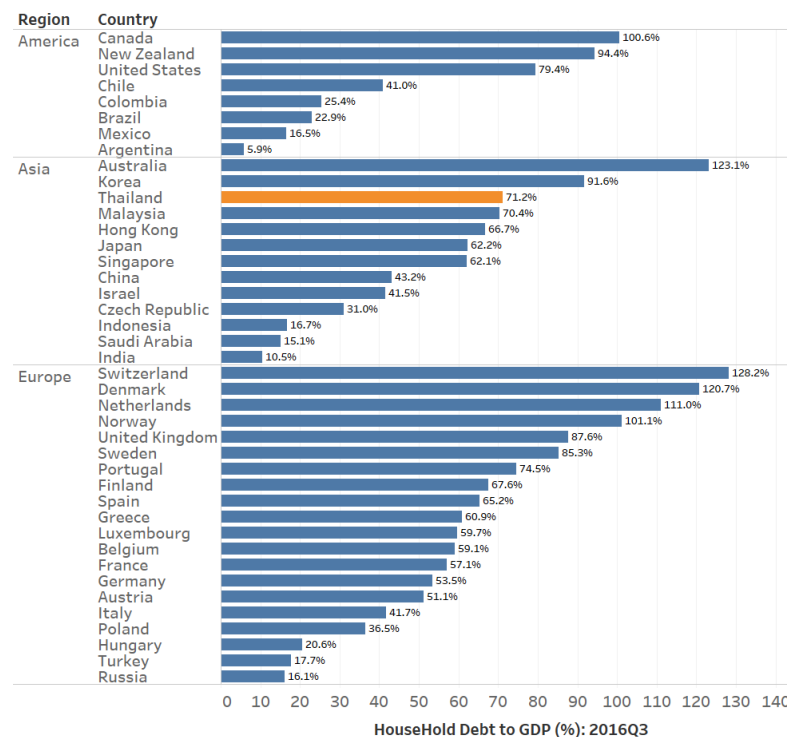PIER

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1. **Microscopic view of debt and delinquency**

2. Dynamics of debt and delinquency

3. Looking into borrower's loan portfolio and behavior

4. Lenders and market behavior

5. A closer look at credit card loan

6. A closer look at mortgage loan

Thailand's household debt deserves a closer look

Thailand among the fastest rise in the region

Region	Country	Change in HouseHold Debt to GDP (%): 2016Q3-2012Q4
America	Canada	7.6%
	Chile	6.2%
	New Zealand	5.9%
	Colombia	3.7%
	Mexico	2.4%
	Argentina	0.0%
	Brazil	-1.3%
	United States	-3.7%
Asia	Australia	14.7%
	China	13.5%
	Korea	10.8%
	Thailand	8.4%
	Malaysia	6.7%
	Hong Kong	5.4%
	Saudi Arabia	5.3%
	Singapore	5.0%
	Israel	2.0%
	India	1.6%
	Czech Republic	0.3%
	Indonesia	0.3%
	Japan	-0.7%
Europe	Norway	18.1%
	Switzerland	10.3%
	Sweden	4.8%
	Belgium	4.4%
	Finland	4.0%
	Luxembourg	3.4%
	Poland	2.4%
	Russia	2.2%
	France	1.9%
	Turkey	-0.5%
	Austria	-1.1%
	Italy	-2.3%
	United Kingdom	-2.5%
	Germany	-2.8%
	Greece	-3.7%
	Netherlands	-7.5%
	Hungary	-11.1%
	Denmark	-12.0%
	Spain	-15.4%
	Portugal	-16.2%

Debt to GDP ratio ranked among the top

Region	Country	HouseHold Debt to GDP (%): 2016Q3
America	Canada	100.6%
	New Zealand	94.4%
	United States	79.4%
	Chile	41.0%
	Colombia	25.4%
	Brazil	22.9%
	Mexico	16.5%
	Argentina	5.9%
Asia	Australia	123.1%
	Korea	91.6%
	Thailand	71.2%
	Malaysia	70.4%
	Hong Kong	66.7%
	Japan	62.2%
	Singapore	62.1%
	China	43.2%
	Israel	41.5%
	Czech Republic	31.0%
	Indonesia	16.7%
	Saudi Arabia	15.1%
	India	10.5%
Europe	Switzerland	128.2%
	Denmark	120.7%
	Netherlands	111.0%
	Norway	101.1%
	United Kingdom	87.6%
	Sweden	85.3%
	Portugal	74.5%
	Finland	67.6%
	Spain	65.2%
	Greece	60.9%
	Luxembourg	59.7%
	Belgium	59.1%
	France	57.1%
	Germany	53.5%
	Austria	51.1%
	Italy	41.7%
	Poland	36.5%
	Hungary	20.6%
	Turkey	17.7%
	Russia	16.1%

Source: BIS

- **Macro literatures**: High household debt could slowdown growth, more vulnerable to shocks, implications to financial stability

- **Micro literatures**: Thin… but critical for understanding prevalence, intensity and distribution of household debt … important for policy design

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	Jul 2016
Loan outstanding[1] (trillion baht)	9.8
Number of borrowers (million)	19.3
Number of active accounts (million)	60.5
NCB member[2]	90

Unique Features

1. Coverage

- Wide population: 87% of total household debt[3]

- Consolidated view of loan relations for each borrower

- From Dec 2009 – July 2016
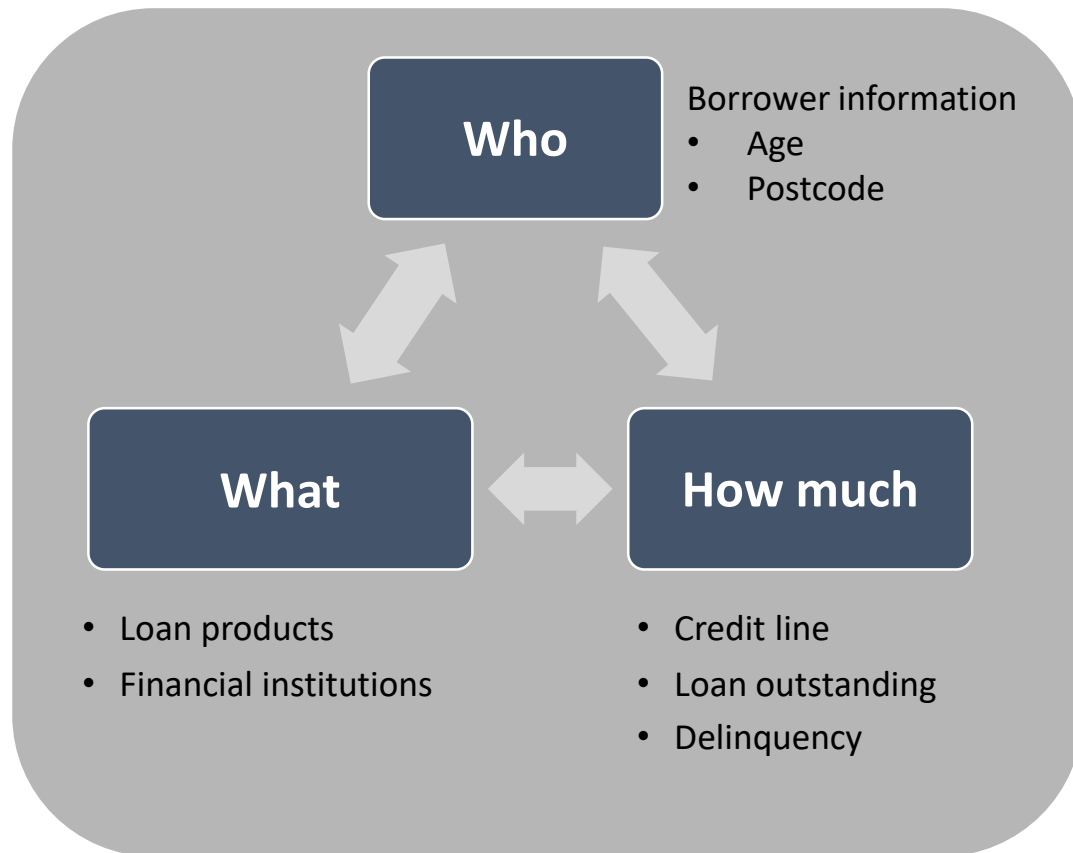
2. Granularity

- Account level information

Note:

[1] Total loan outstanding in NCB data excludes student loans, loan from informal sectors, and majority of loans from co-operatives

[2] As of Jul 2016, NCB members comprise of 15 Thai banks, 4 foreign bank branches, 6 SFIs, 14 credit card companies, 43 hire purchase companies, 7 insurance companies and 1 co-op. BAAC becomes member of NCB in Q2,16. Members are on voluntary basis.

[3] Total household debt as of June 2016 was 11.14 trillion Baht

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Data Dimensions

Who

Borrower information
• Age
• Postcode

What

• Loan products
• Financial institutions

How much

• Credit line
• Loan outstanding
• Delinquency

New perspectives

1. Distribution
2. Prevalence
3. Individual Intensity

Policy Questions

1. Financial Access
2. Financial stability
3. Macroeconomic Feedback

Note: NCB data does not include information on borrower's income, occupation, interest rate and repayment flow.

1. **Helicopter view**

2. **Distributions**

3. **Prevalence and Intensity**

4. **Geography of debt and delinquency**

5. **Age profiles of debt and delinquency**

6. **Life cycle view of debt**

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- Substantial segmentation across financial institutions…

Breakdown By Financial Institutions Use

Share of borrowers

Commercial banks   SFIs

15.4%   3.7%   **22.8%**
(2.96 million)   (4.39 million)
only use commercial   only use SFIs
banks

17.3%   5.7%

Others*   **28.7%**   **6.5%**
        (5.52 million)   (1.25 million)
        only use others   have access to all

Share of loan outstanding

Commercial banks   SFIs

15.1%   8.2%   **12.1%**

30.7%   6.8%

Others*   **5.8%**   **21.3%**
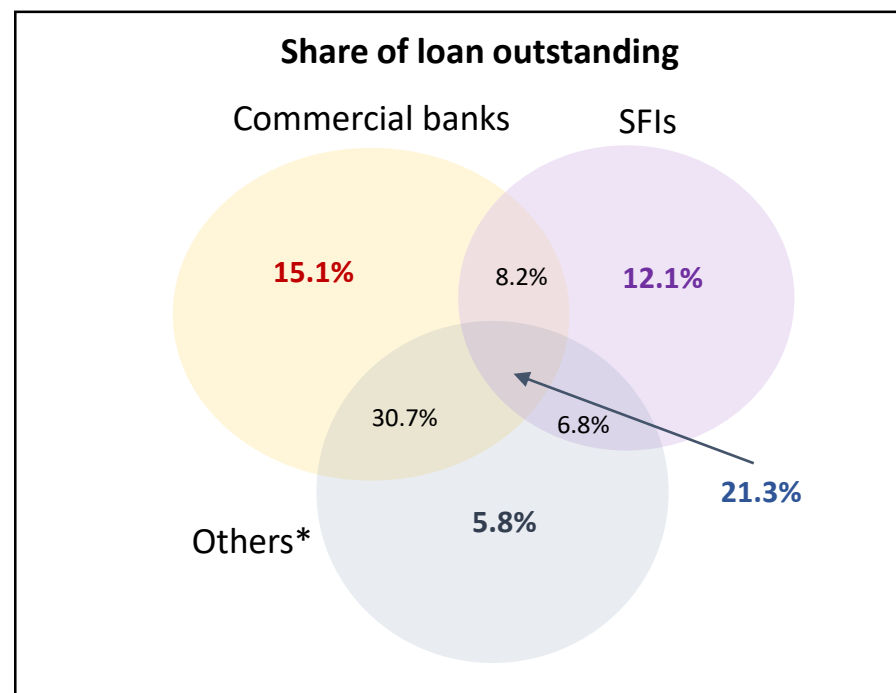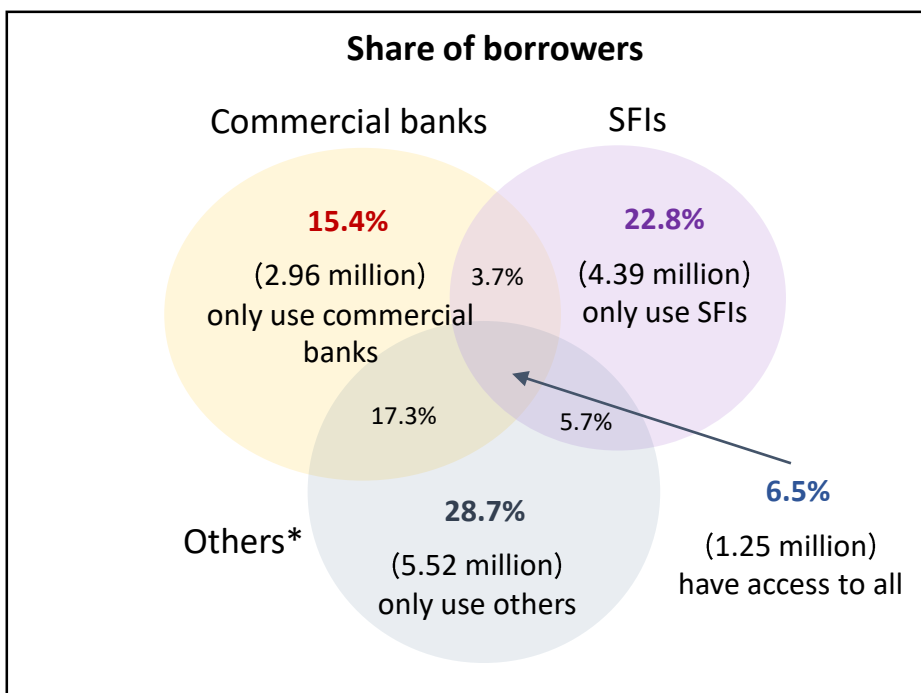
- 67% of borrowers use only ONE type of financial institution
- 57% only use ONE institution

* Others include non-banks (i.e. credit card firms, hire purchase firms, etc.) and insurance company, co-operative

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- Also substantial segmentation across products…

Borrowers' Loan Portfolio

Share of borrowers

Car loan — **14.8%** — 0.7% — Home loan **3.1%**
13.1% — 6.5%
Unsecured loan — **45.6%** — **3.1%**

Share of outstanding

Car loan — **9.2%** — 1.7% — Home loan **4.5%**
18.9% — 23%
Unsecured loan — **21.1%** — **18.1%**

Delinquent loan headcount

Car loan — **18.2%** — 13.1% — Home loan **7.7%**
19.6% — 11.1%
Unsecured loan — **15.9%** — **13.1%**
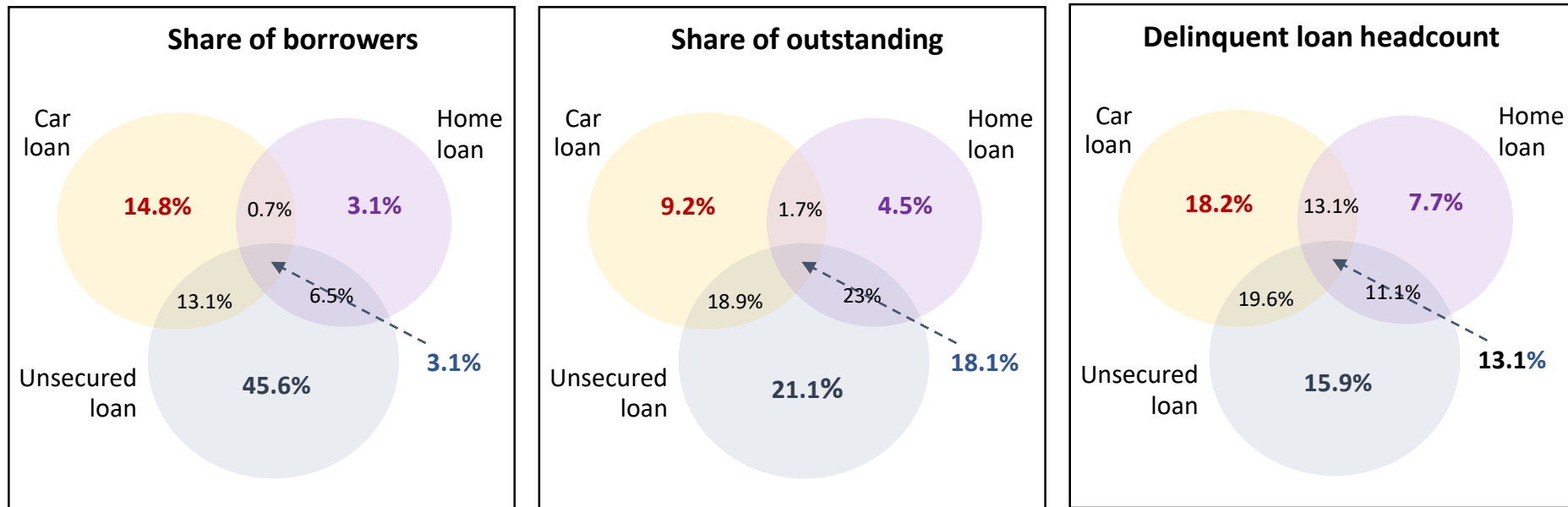
46% of borrowers only use unsecured loans

3% of borrowers with all account types make up 18.1% of total loan

13.4% of borrowers with housing loan account for 47.3% of total loan

Note:
1. Delinquent loan: loans that is over 90 days past due
2. Unsecured loan comprises of p-loan, OD, credit card and others
3. Loan for business (i.e. commercial loans and agriculture loan) are excluded from this portfolio

Distributions

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- The top 10% borrowers account for 62.4% of the system (same for delinquency)

- But concentration slowly declines over time

- Among the top 10% are older, high propensity to be home owner, in urban and have larger number of accounts and loan products

Concentration of debt (July 2016)
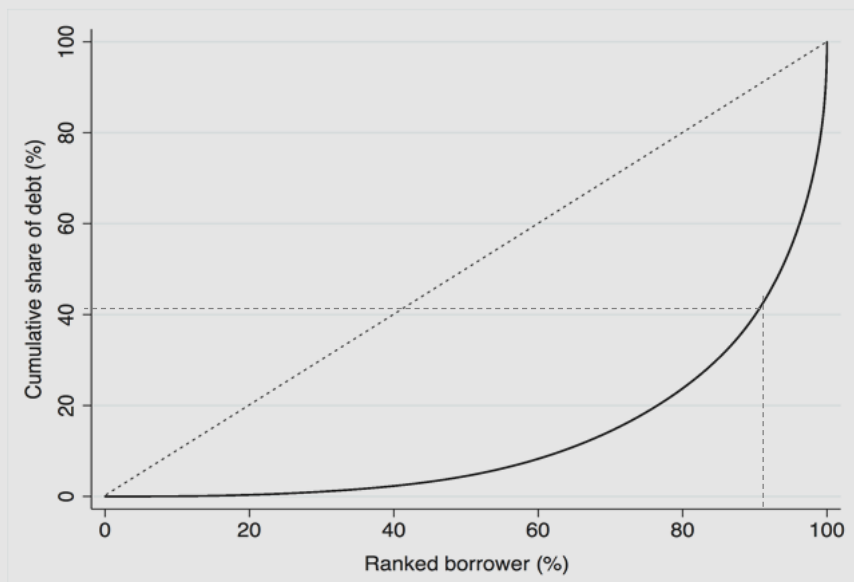
Concentration of debt over time
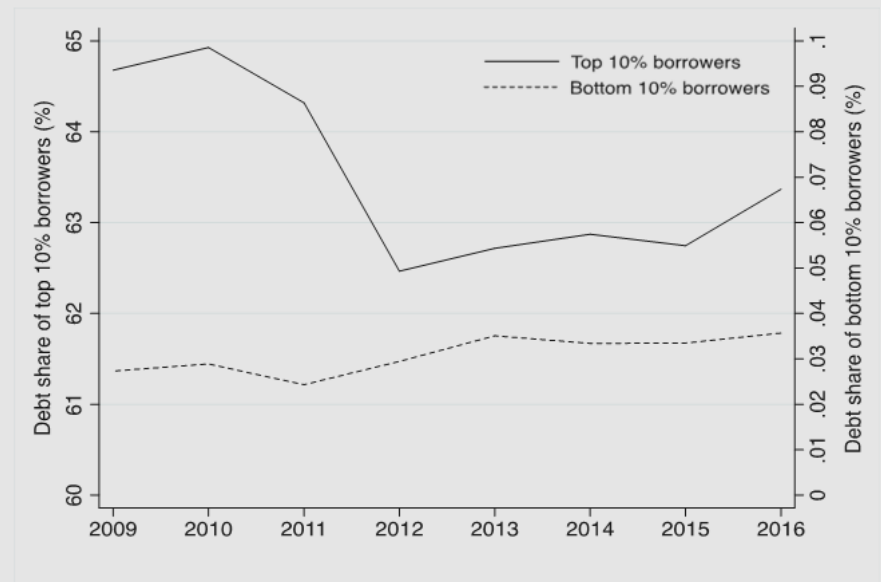
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Bangkok and vicinity

North

Central

South

Northeast

Each dot = 100 borrowers with debt level in the

● Bottom 10% (<6,921 baht)

● Middle 80% (6,921-1,167,123 baht)

● Top 10% (≥1,167,123 baht)

Bangkok

Each dot = 100 borrowers with debt level in the
- Bottom 10% (<6,921 baht)
- Middle 80% (6,921-1,167,123 baht)
- Top 10% (≥1,167,123 baht)
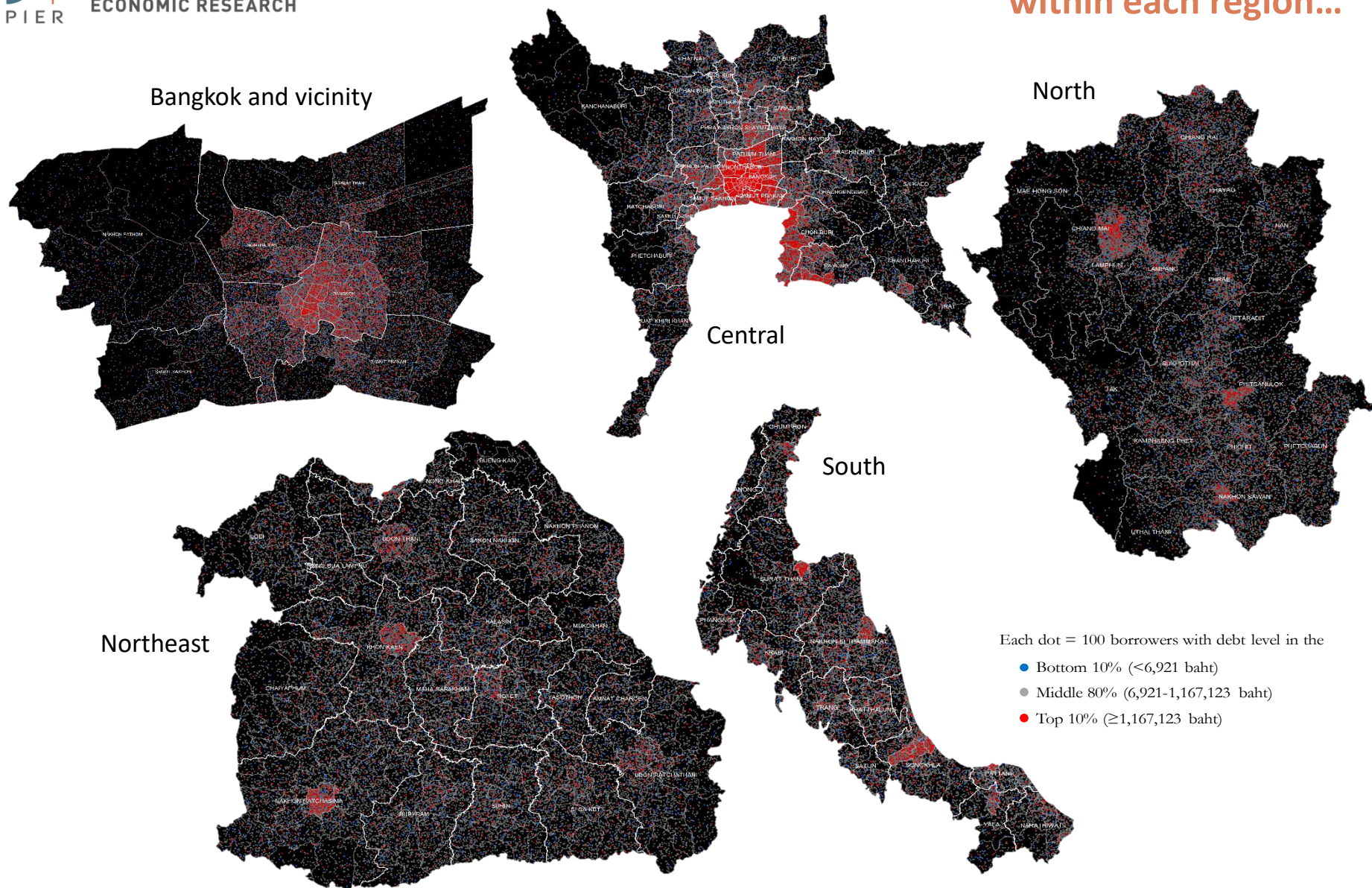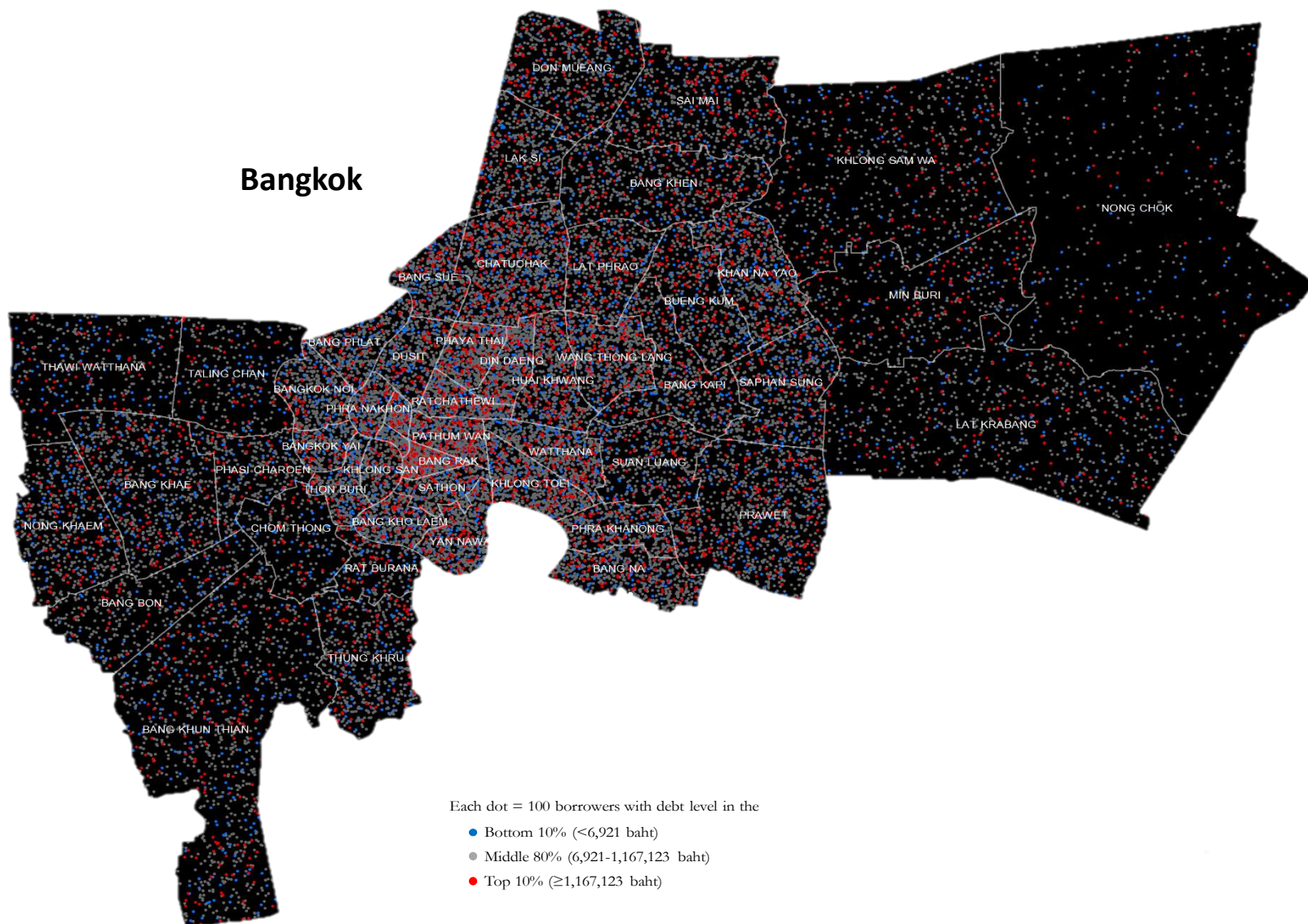
Prevalence and Individual Intensity

- 29% of population have debt from formal institutions
- High debt intensity … (median debt per borrower 147,068 baht)
- Overtime, increasing debt headcount (extensive margin) and intensity (intensive margin)

Debt prevalence and intensity
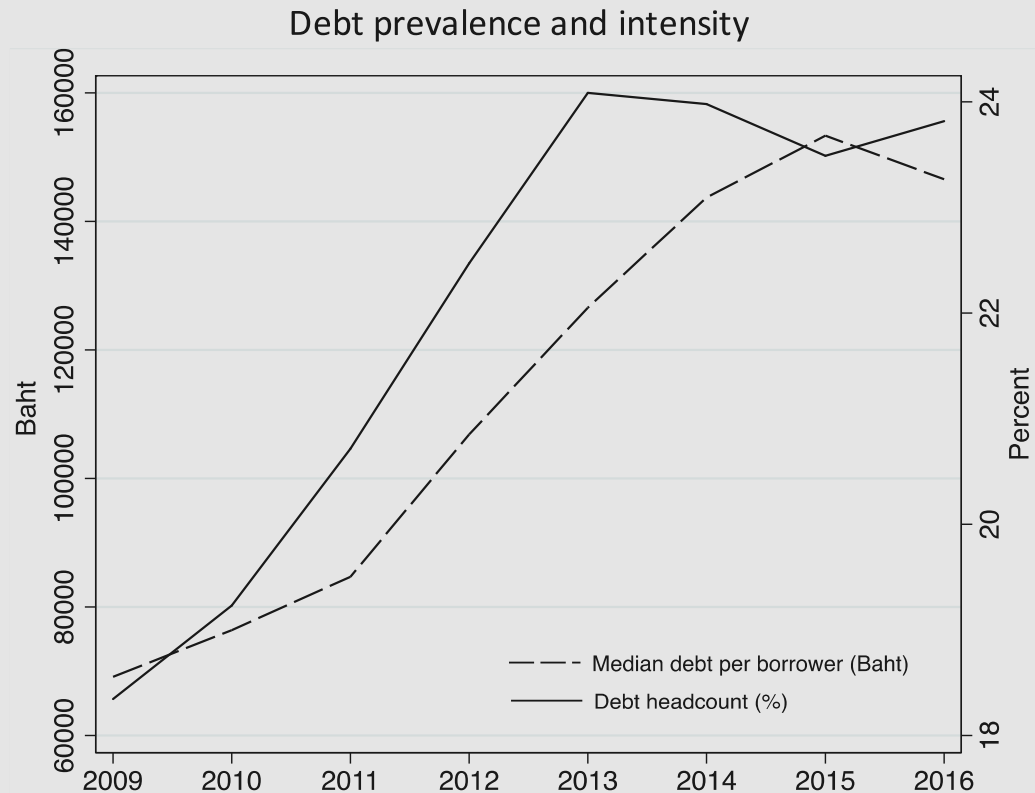
Note: This has control for new NCB members i.e. only institutions that are NCB members since 2009 will be included in this analysis.

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- 16.6% of borrowers have delinquent loans
- High intensity of delinquent debt…(median delinquent debt 56,529 baht)
- Overtime, declining delinquency headcount

Delinquency prevalence and intensity
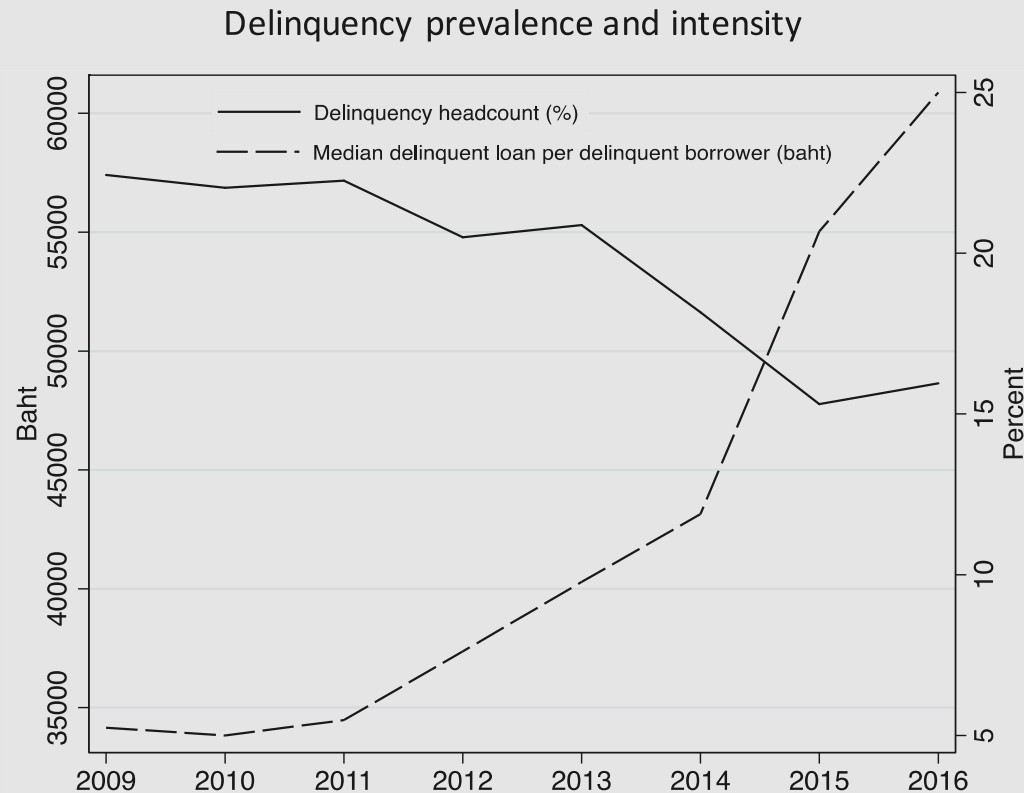
Note: (1) This has control for new NCB members i.e. only institutions that are NCB members since 2009 will be included in this analysis.

(2) Delinquent loan is loan that is over 90 days past due

Geography of debt and delinquency

Large variations in debt prevalence and intensity geographically

- Access high in Bangkok and vicinity and the Central region…

- Debt high in the North, Northeast, and South…

Debt headcount July 2016

Median debt per borrower July 2016
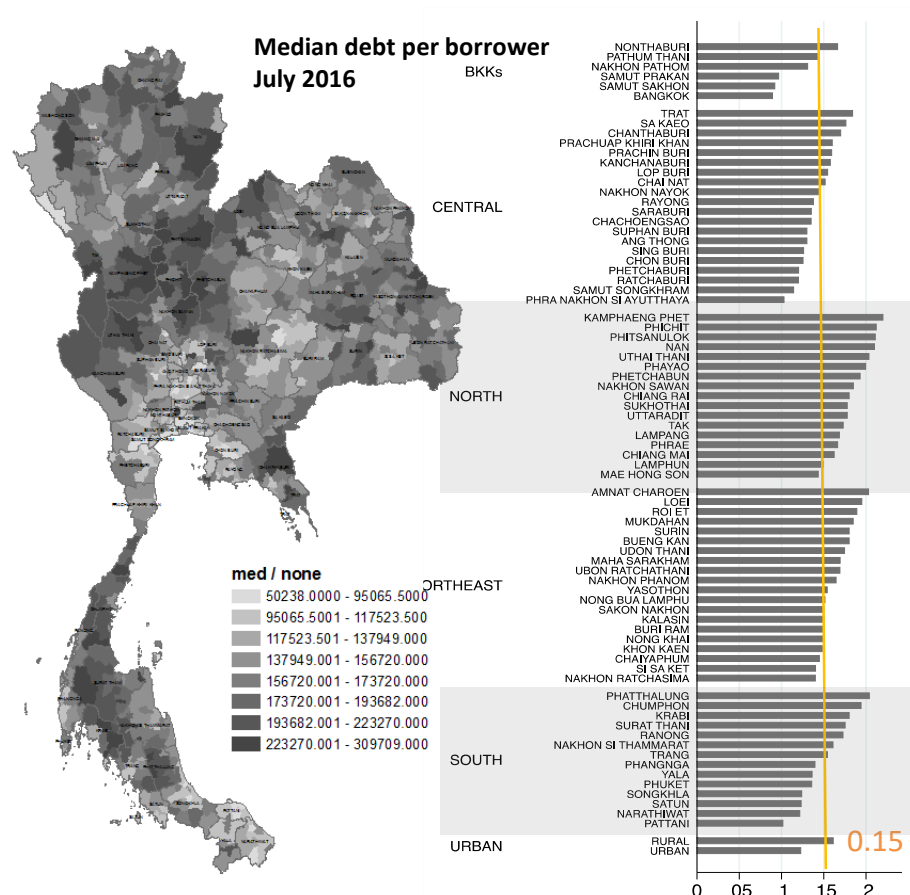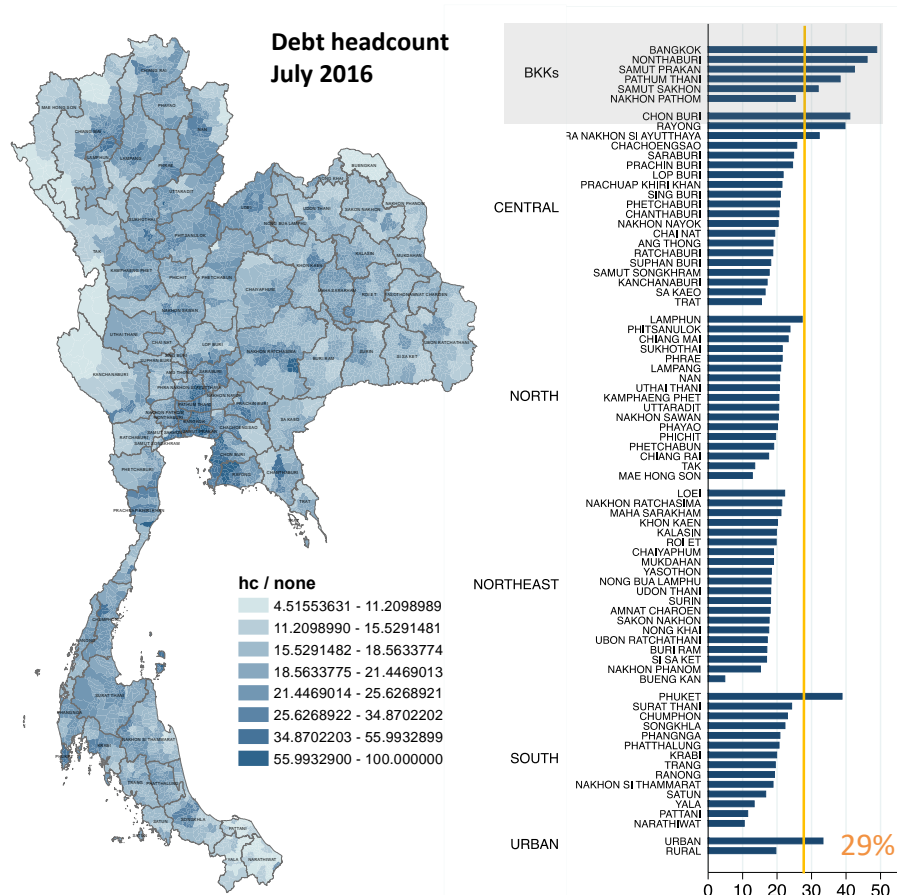
- Elevated delinquency in Central and South, lowest in North…

Delinquency headcount
July 2016

delin_hc / none
- 4.23866987 - 9.52050018
- 9.52050019 - 11.9339046
- 11.9339047 - 13.7479181
- 13.7479182 - 15.5036211
- 15.5036212 - 17.3864536
- 17.3864537 - 20.0838165
- 20.0838166 - 23.9849949
- 23.9849950 - 30.9610062

16.6%
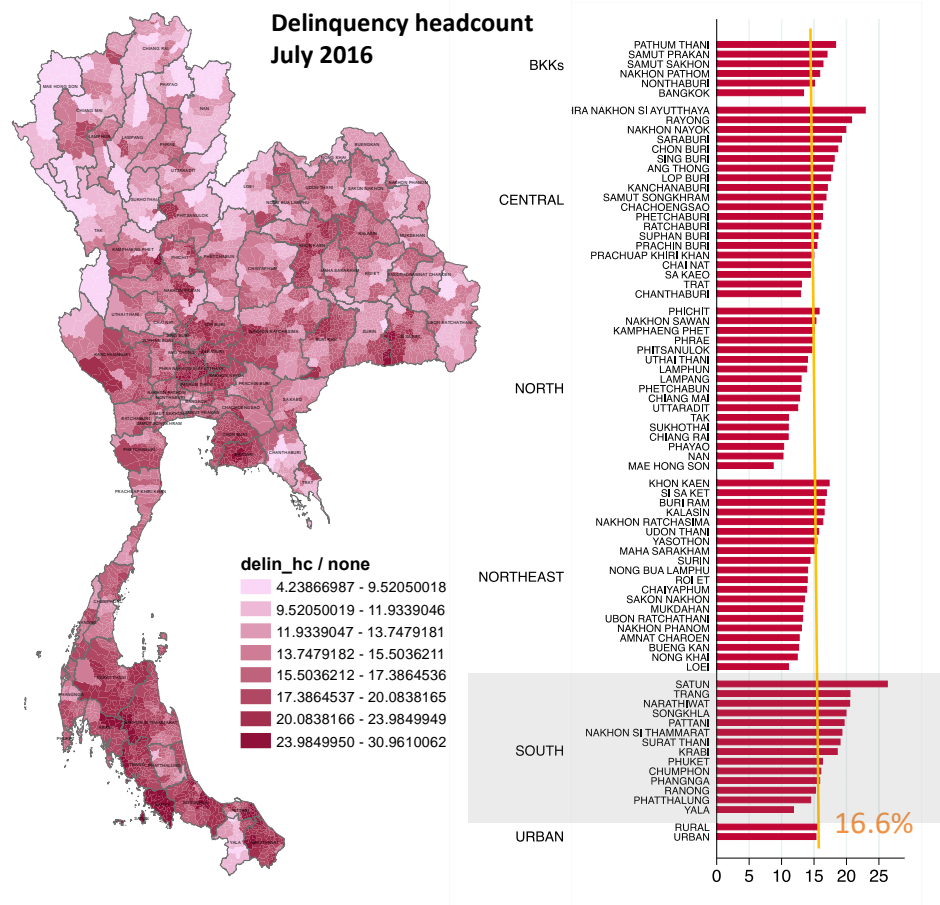
Extensive Margin: More borrowers….   **Intensive Margin:** More debt per borrower except South…

Zooming in by loan type

Credit card   **P-loan and others**   **Housing**   **Auto**   **Motorcycle**   **Loan for business**

Prevalence: Debt headcount
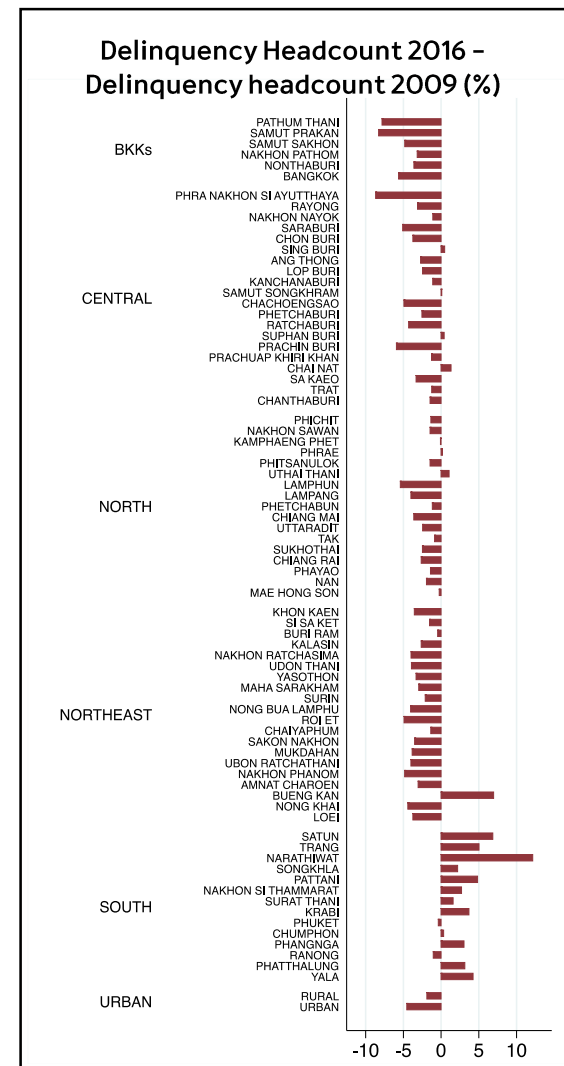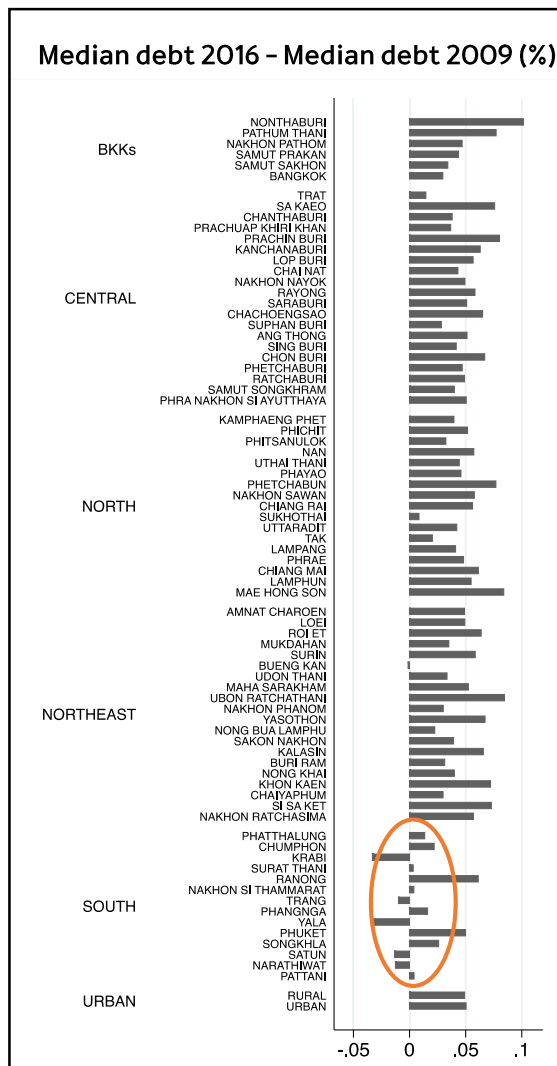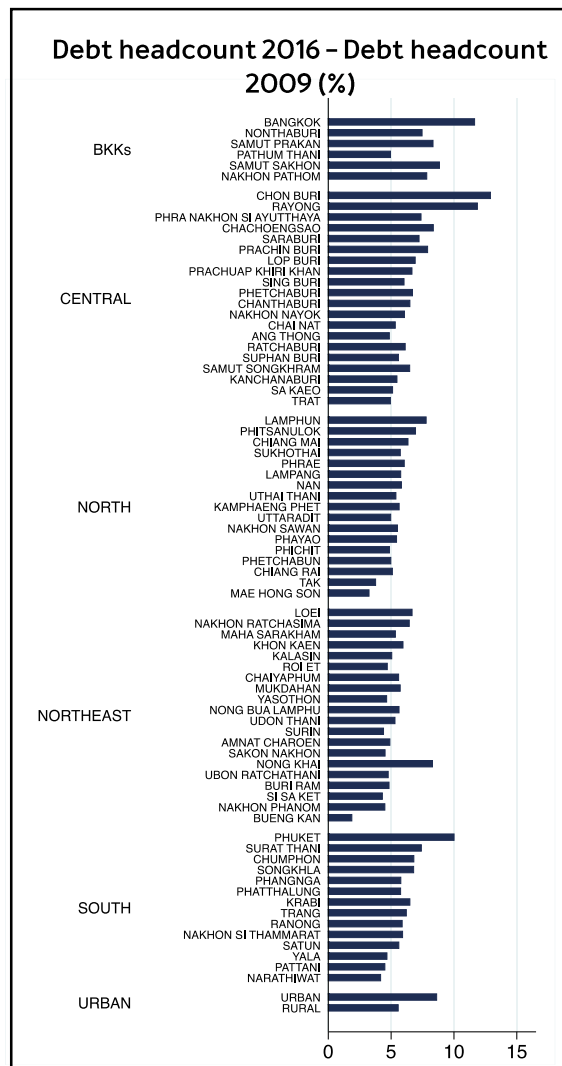
Delinquency headcount

Age profiles of debt and delinquency

Thai households have debt since very young, for prolonged period of time and until very old

- Approx ½ of working age population have debt…

- …have debt since young, for prolonged period of time…

- High delinquency especially for young adult around 30 years old

Debt headcount (%)
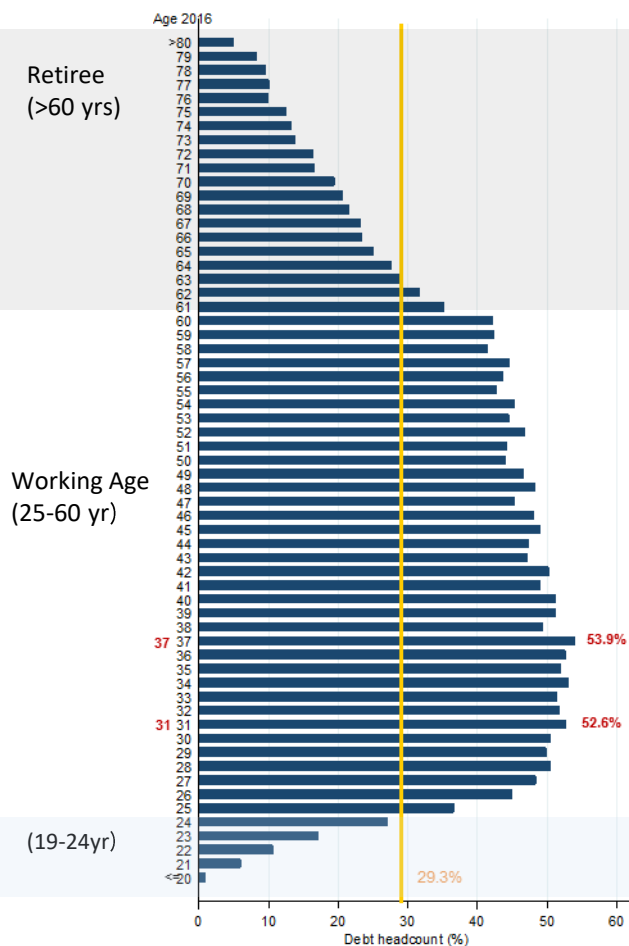
Median debt per borrower (baht)
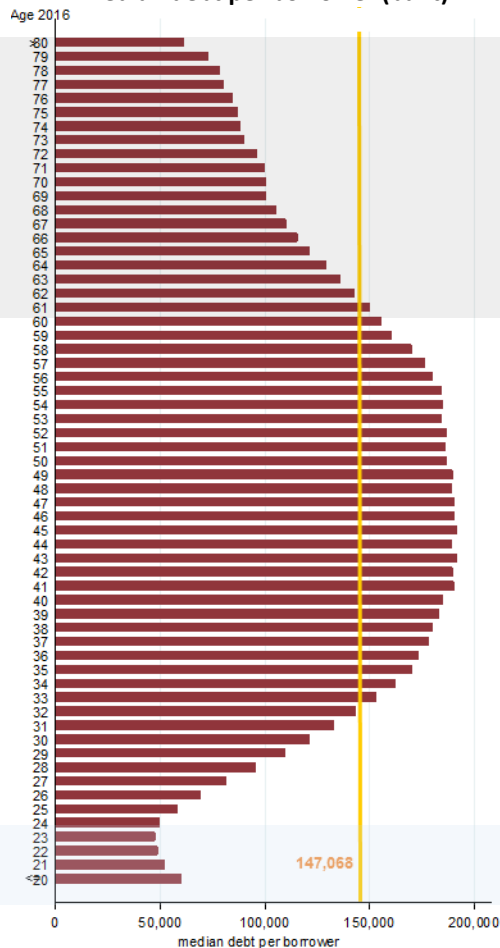
Delinquency headcount (%)
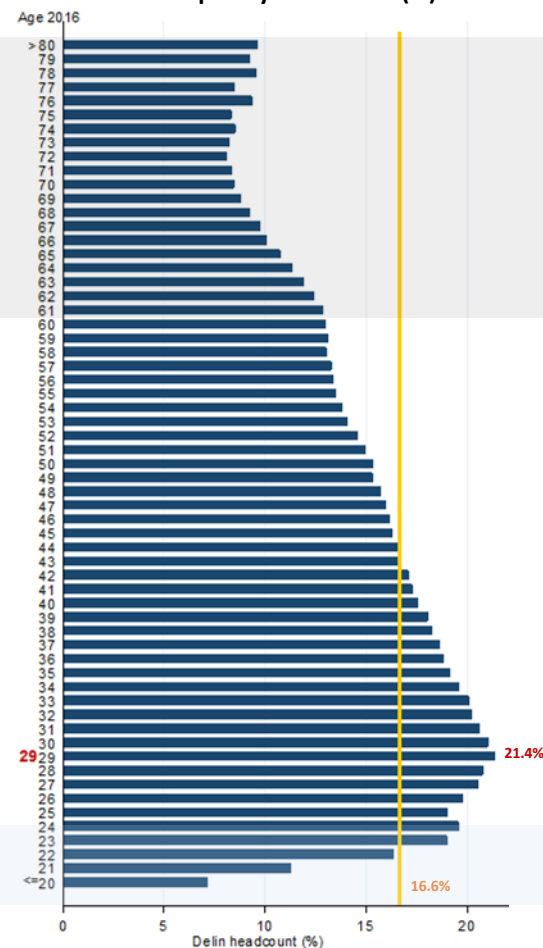
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Extensive margin: More people have debt overall and across age cohort, especially young

Intensive margin: People have more debt, especially young working age

Debt headcount (%)
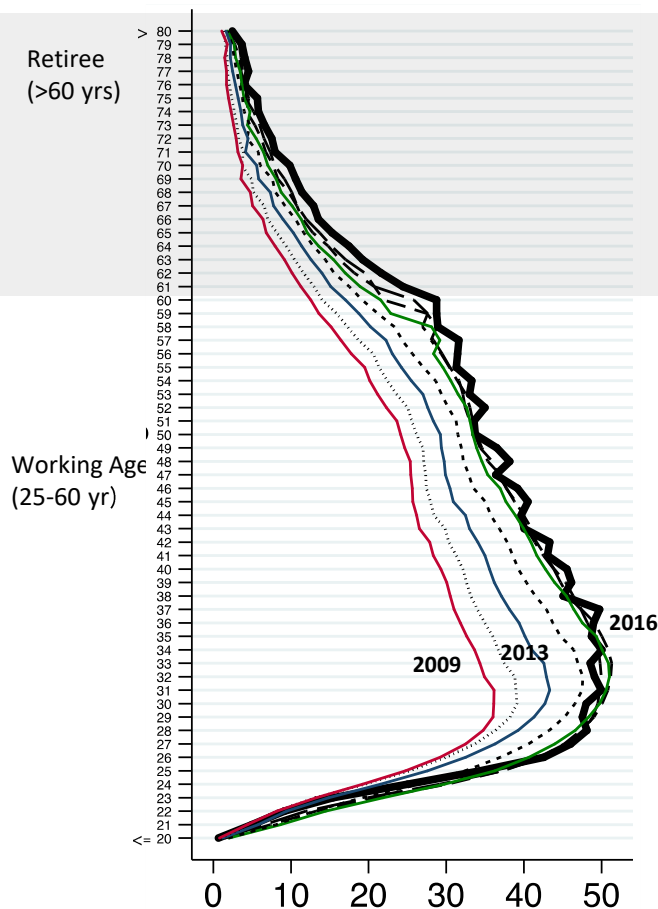
Median debt per borrower (million baht)

Delinquency headcount (%)

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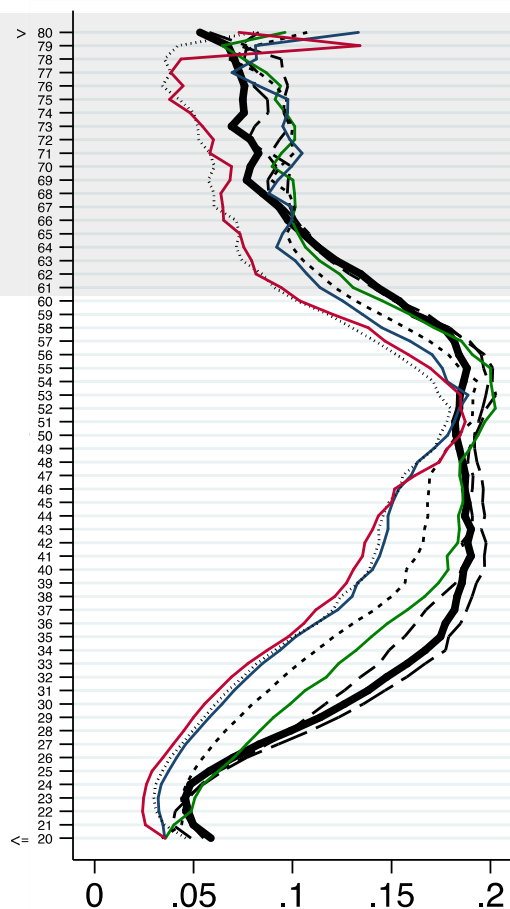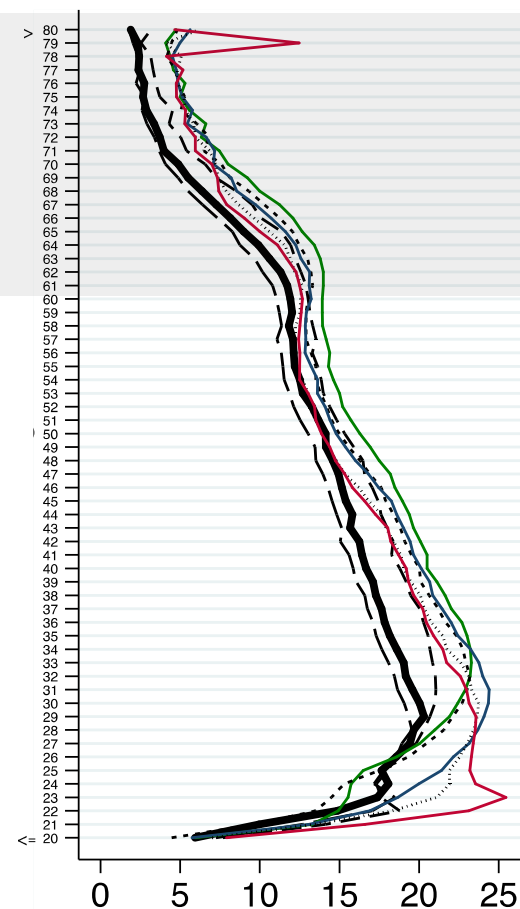
High prevalence of ploan, auto and credit card for the young

- Access to housing loan and credit card limited (less than US), while personal loan is prevalent…

July 2016: Debt headcount (%)
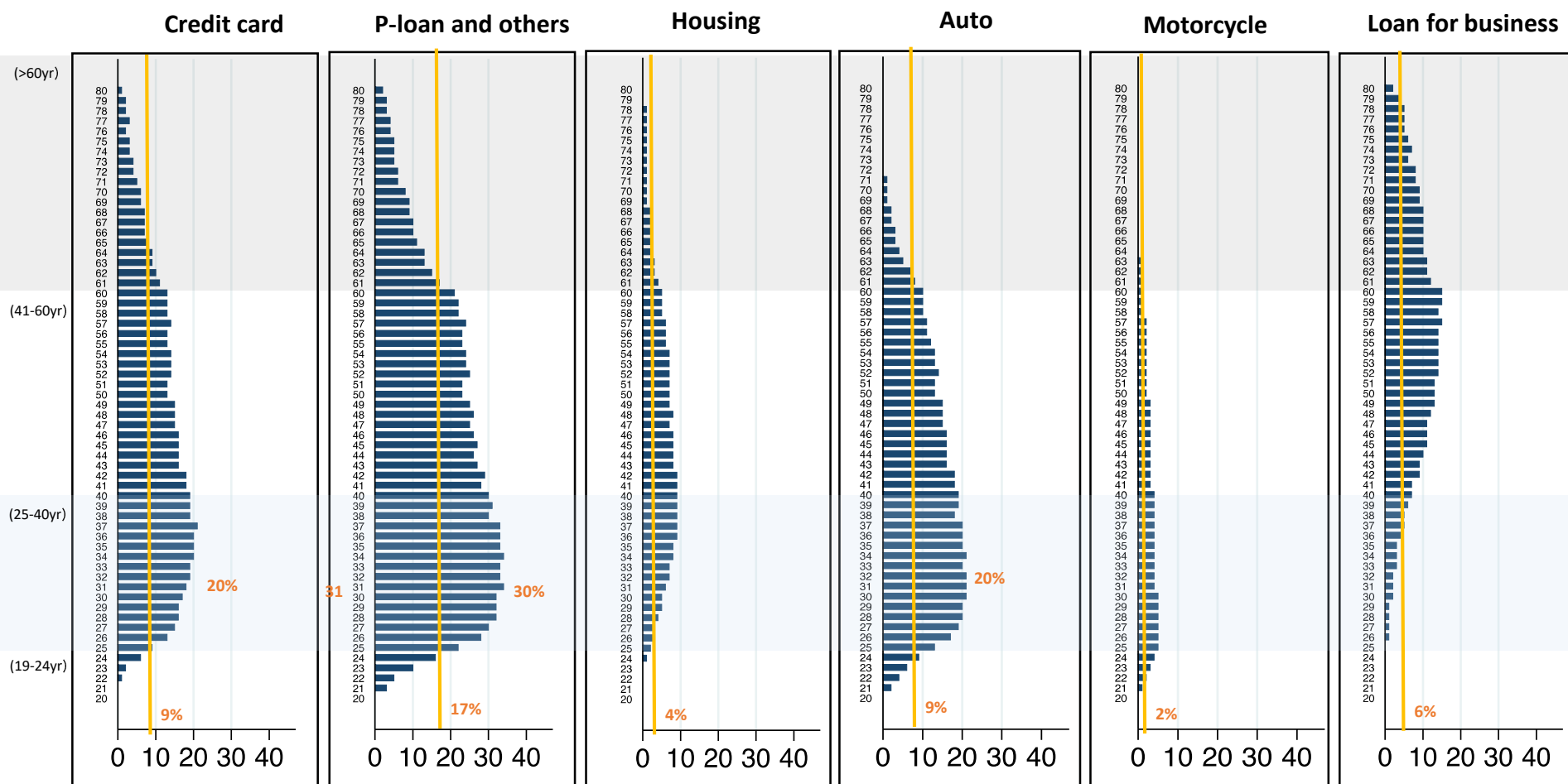
Note: (1) Other loan product include OD and other hire purchase and leasing. (2) Loans for business include commercial loan and loan for agriculture

- Increasing access…especially auto, credit card and p-loan in the young

Debt headcount (%) 2009-July2016
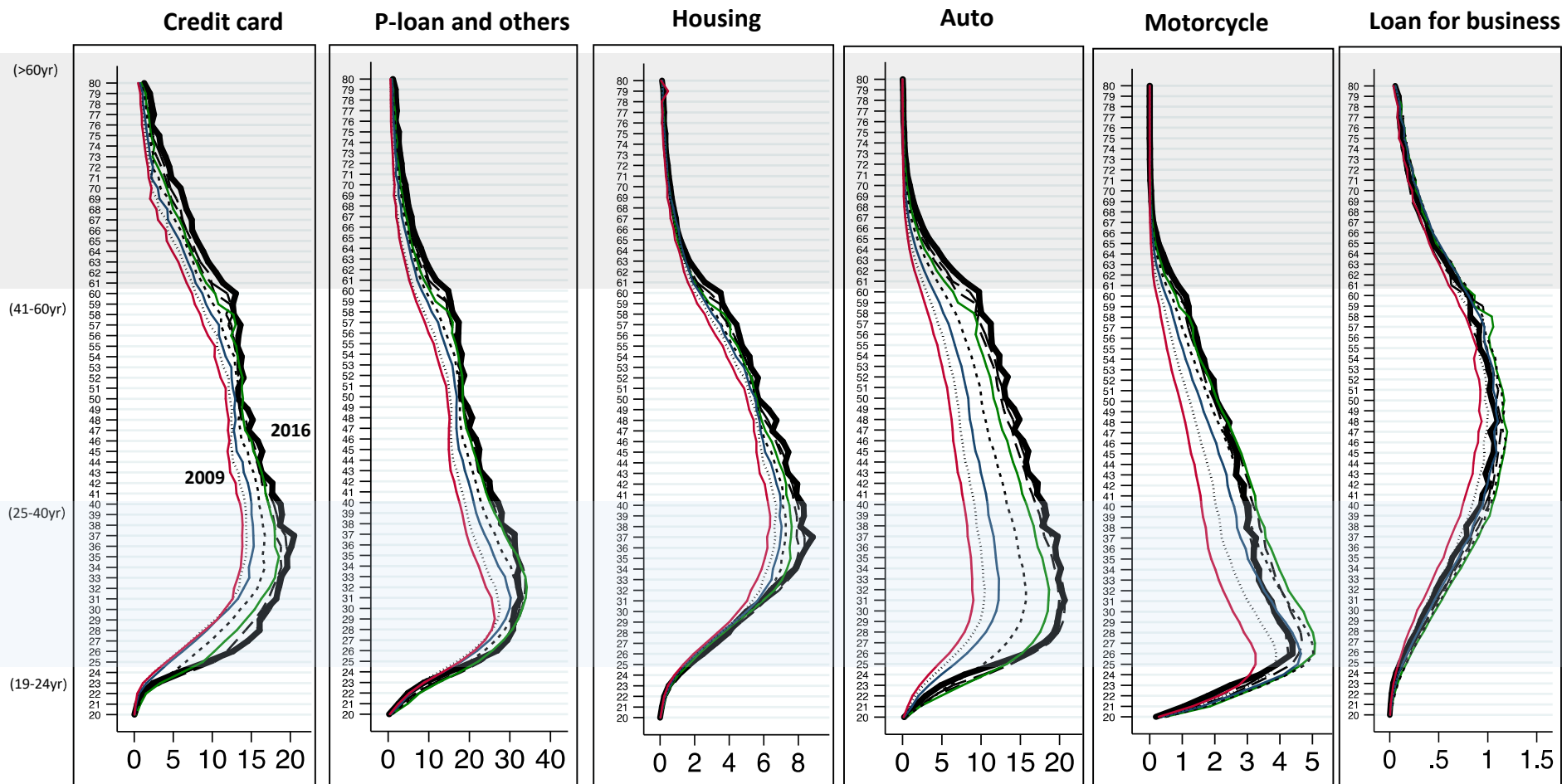
Note: (1) Other loan product include OD and other hire purchase and leasing. (2) Loans for business include commercial loan and loan for agriculture

- Delinquency low for housing, high for P-loan, extreme for motorcycle

July 2016: Delinquency headcount (%)
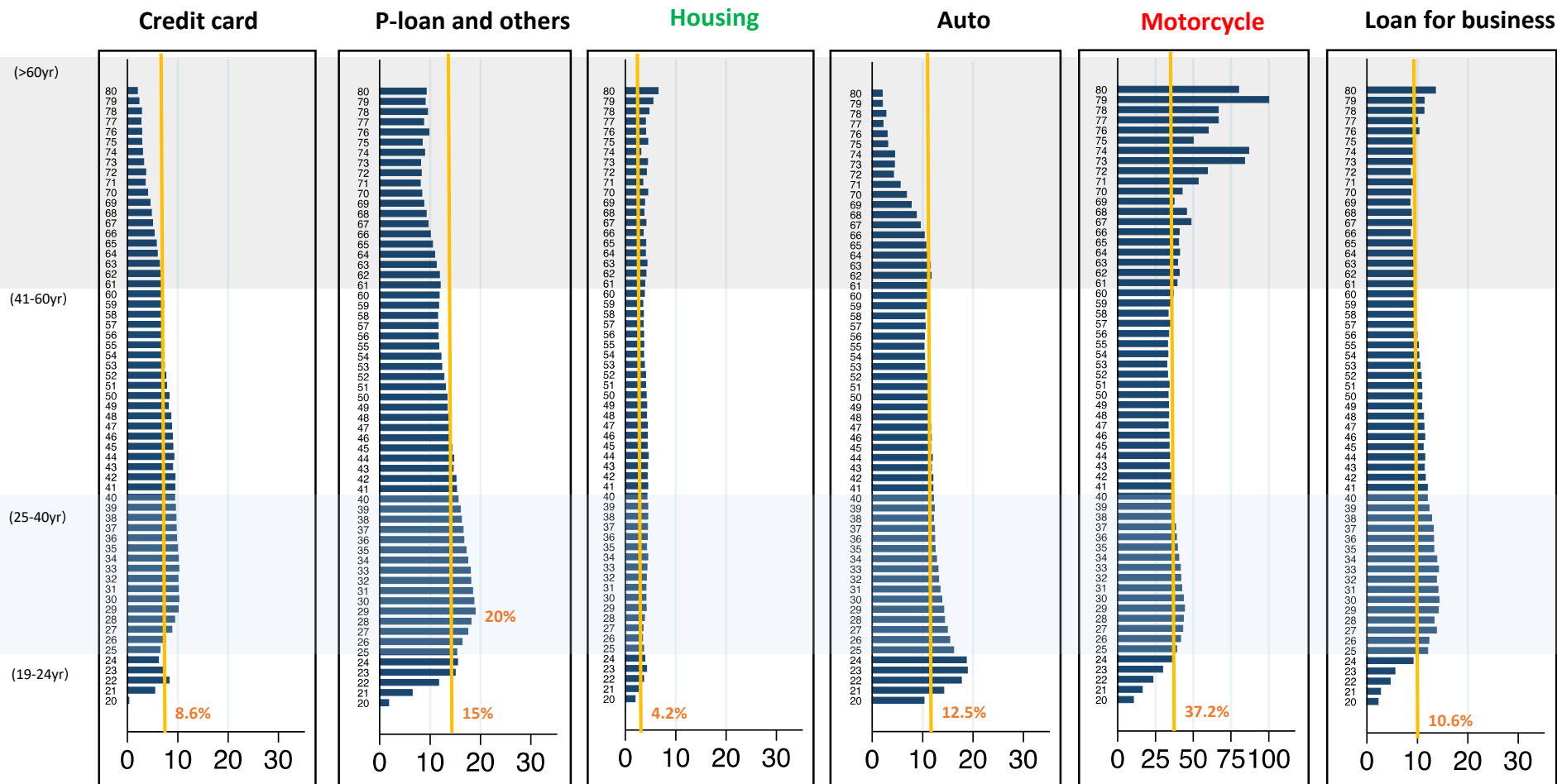
Credit card	P-loan and others	Housing	Auto	Motorcycle	Loan for business
8.6%	15% / 20%	4.2%	12.5%	37.2%	10.6%

Note: (1) Other loan product include OD and other hire purchase and leasing. (2) Loans for business include commercial loan and loan for agriculture

Life cycle view of debt

Debt headcount by age and birth cohort (%)
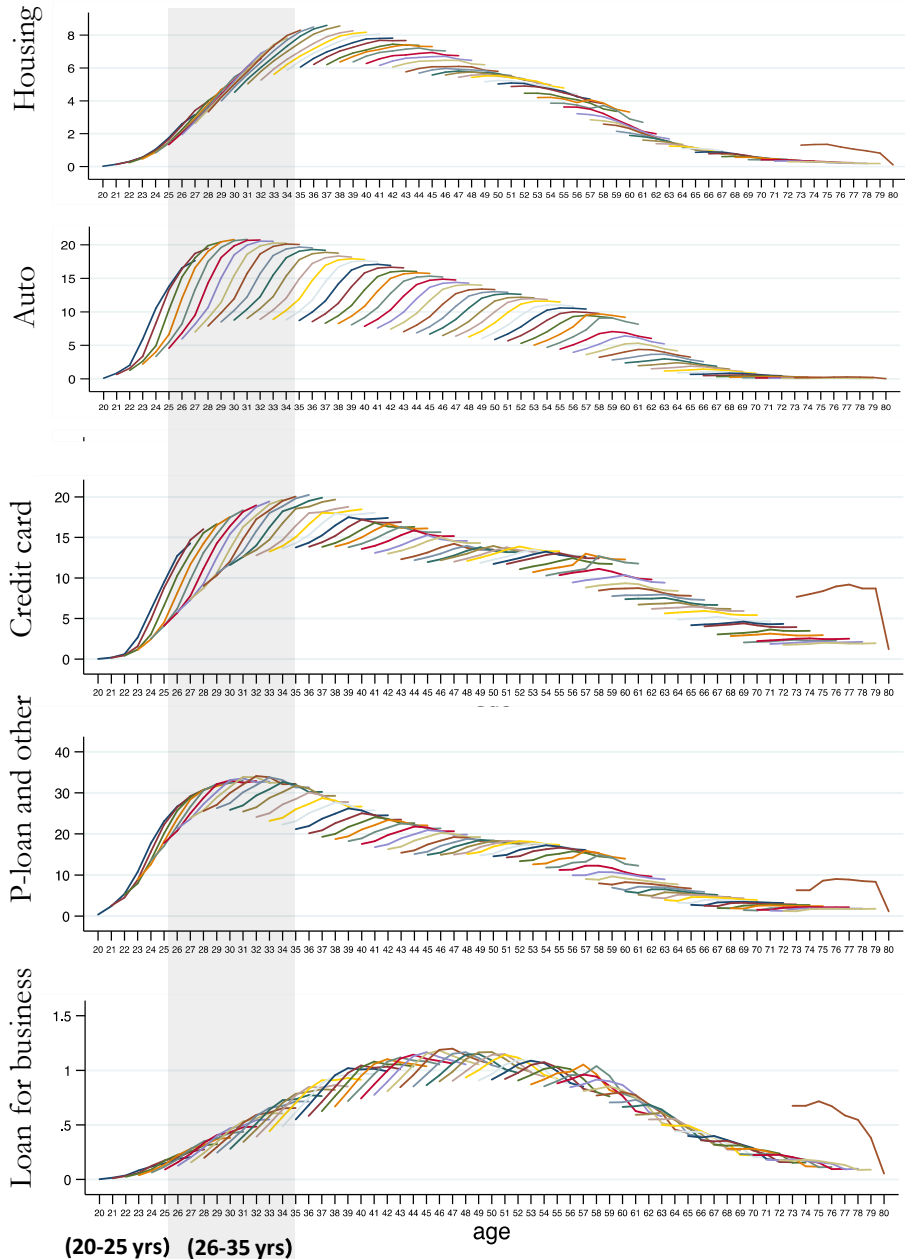
Debts follow life cycle at different pattern: some loan taken out at very young age

- More people (age ≤ 25) have P-loan, auto loan and credit card

- By age 25:

  25% of individuals have P-loan, 12% auto loan (US: 25% at age 20) and 10% credit card

- By age 35:

  30% of individuals have P-loan, 20% auto loan, 20% credit card and 8% housing loan (US: 40% at age 40)

- By age 45:
  10% of individuals have business loans

Financial Access

- Clear segmentation of usage of financial institutions and loan products

- Overall access to credit moderate, limited for housing

Financial Stability

- High debt concentration overall – Housing loan (13% = 47% of loan)

- High delinquency headcount overall, and especially Central and South

- Bulk of young access to debt is through personal loan where delinquency is also high.

- Large time and cross-section variation in quality of loans

Macroeconomic Feedback

- High debt intensity in North, Northeast and South

- High delinquency rate for young suggests prolonged drag on spending from group with largest propensity to spend

Substantial heterogeneity – Should not generalize

Chantarat, Lamsam, Samphantharak and Tangsawasdirat (2017).

Thailand's Household Debt through the Lens of Credit Bureau Data: Debt and Delinquency. PIER Discussion Paper.