



Family business and fintech use during the pandemic: findings from ADBI household survey

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Family business in CAREC

- Family business plays an important role in Asian economies including CAREC region
- Most family businesses in CAREC are micro or small enterprise (>99% are MSMEs in our sample)
- Previous study finds large share of family business HHs in CAREC were hit by pandemic, experiencing (i) business closure and (ii) severe decline in business income (Kodama et al. 2022)
- This study:
 - Presents preliminary results on family business condition from 2022 ADBI household survey in 10 CAREC countries
 - Investigates a role of financial technology in their business condition during the pandemic

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ADBI COVID-19 household survey data

- Focus: understand the COVID-19 pandemic impacts on household e.g., HH income, expenditure, financial conditions, family business, child education
- Method: Computer-assisted telephone interviews (CATIs)
- Sample: Randomly selected 1,000+ HHs from each country, representative HHs (= regional and income distribution)
- Survey waves
 - 2020 survey: 8 ASEAN countries (wave 1)
 - 2021 survey: 7 ASEAN (wave 2) and 10 CAREC countries (wave 1)
 - 2022 survey: 7 ASEAN (wave 3) and 10 CAREC countries (wave 2)
- Details of previous survey:
Azhgaliyeva et al. (2022a) and Morgan and Trinh (2021)

Map of study sites

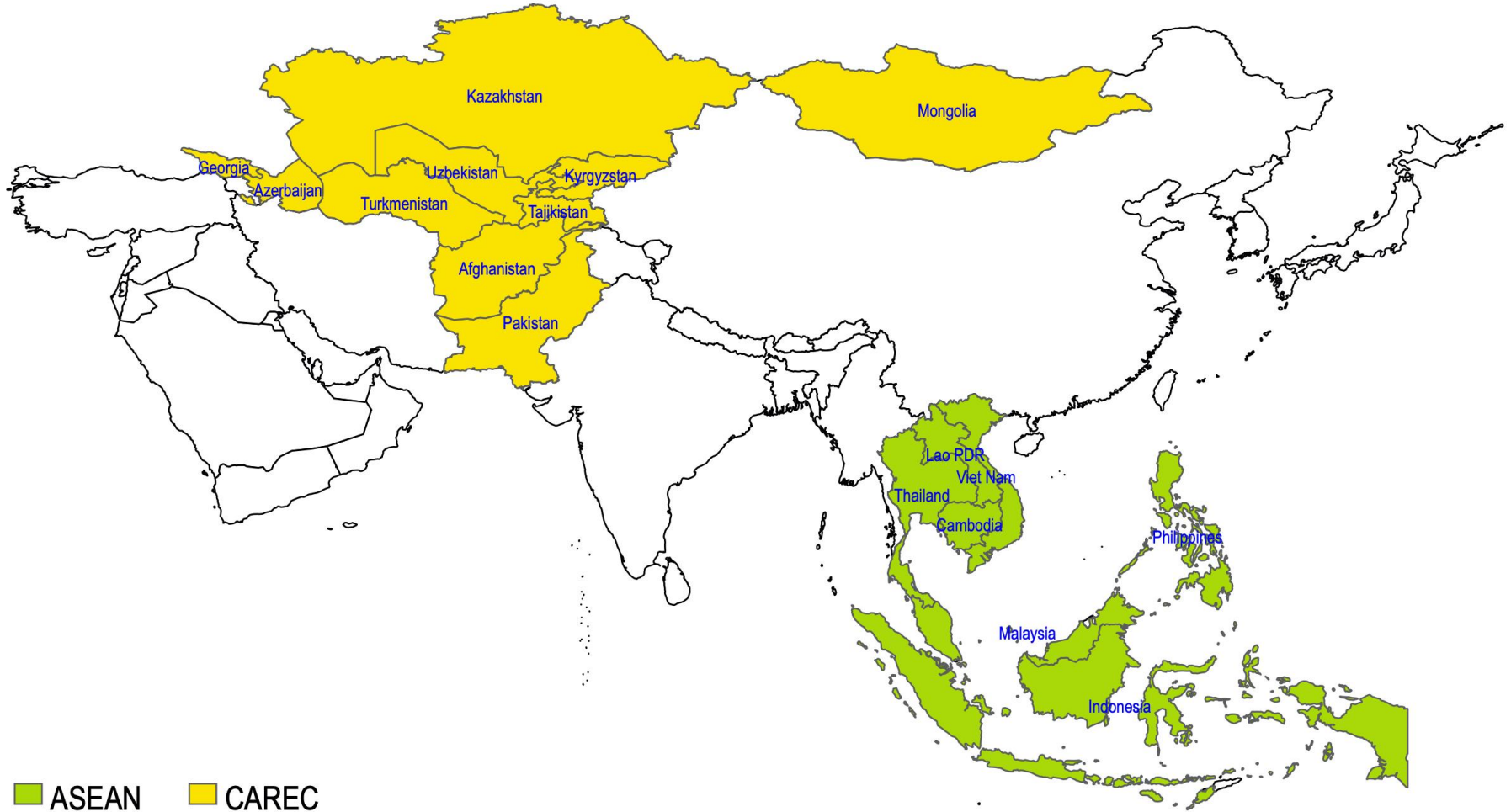


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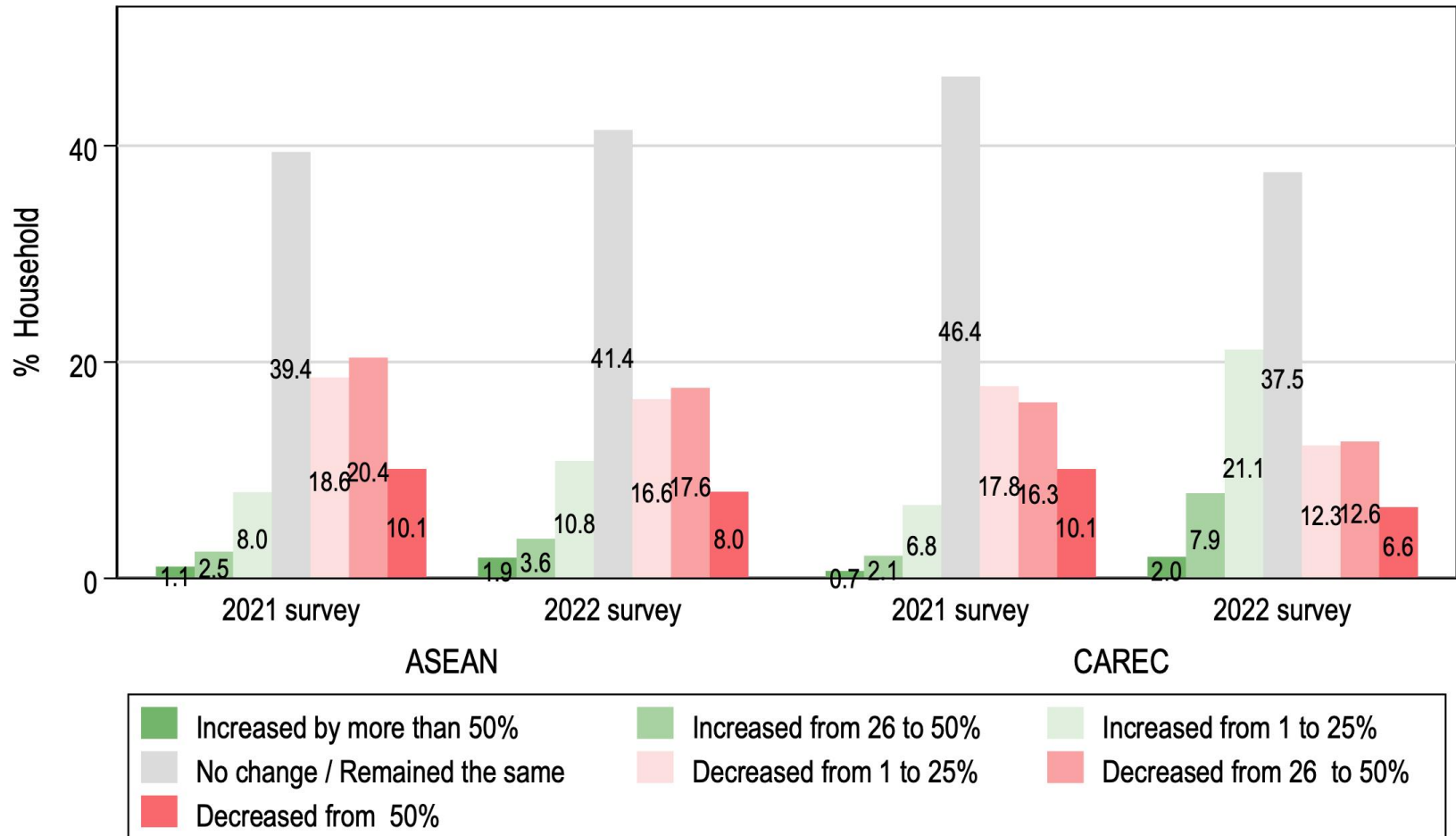
3.2 Family business during the pandemic

3.3 Fintech use during the pandemic

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Change in monthly household income since the pandemic (comparison to December 2019)



Change in household expenditure since the pandemic (comparison to December 2019)

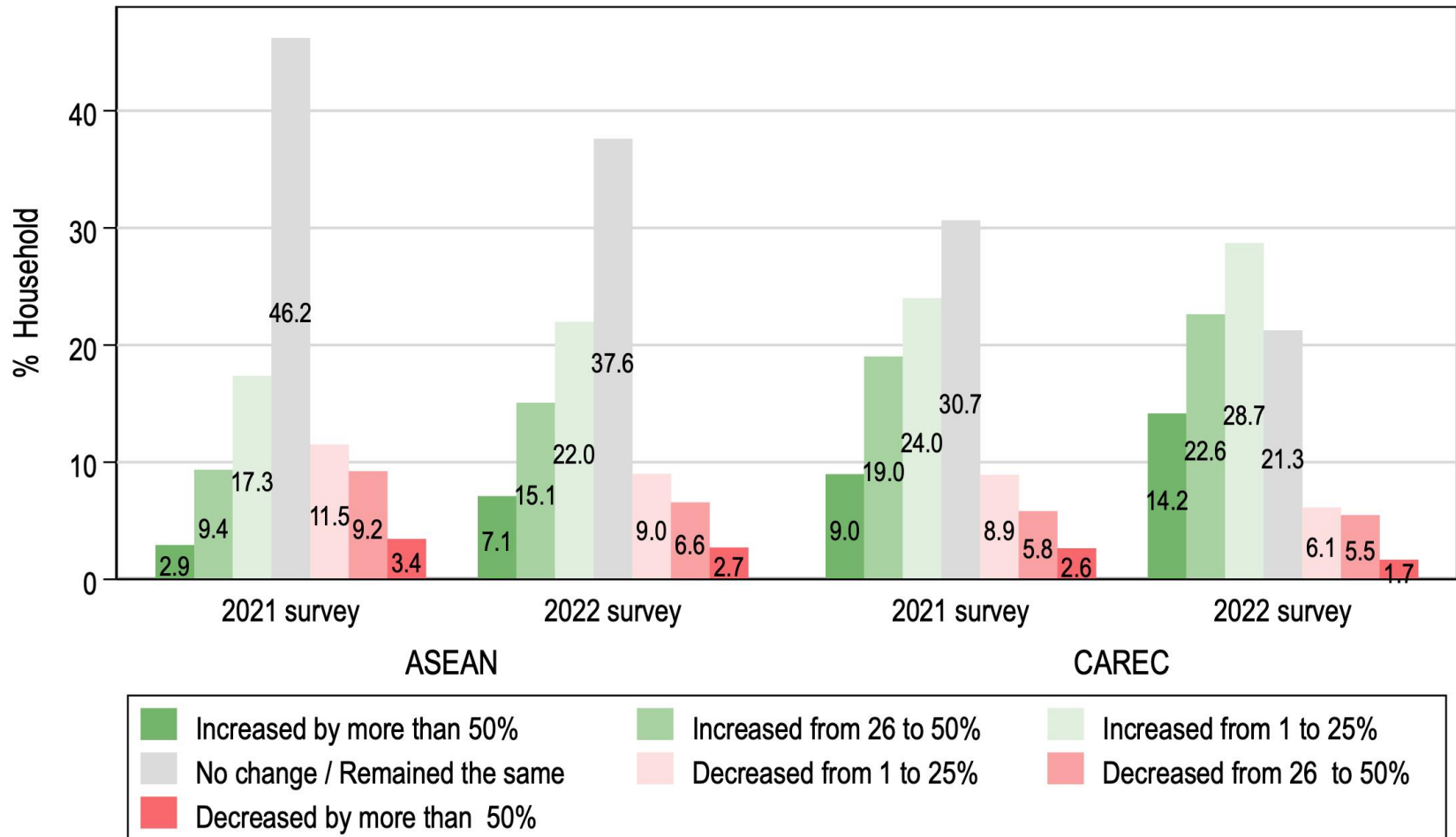


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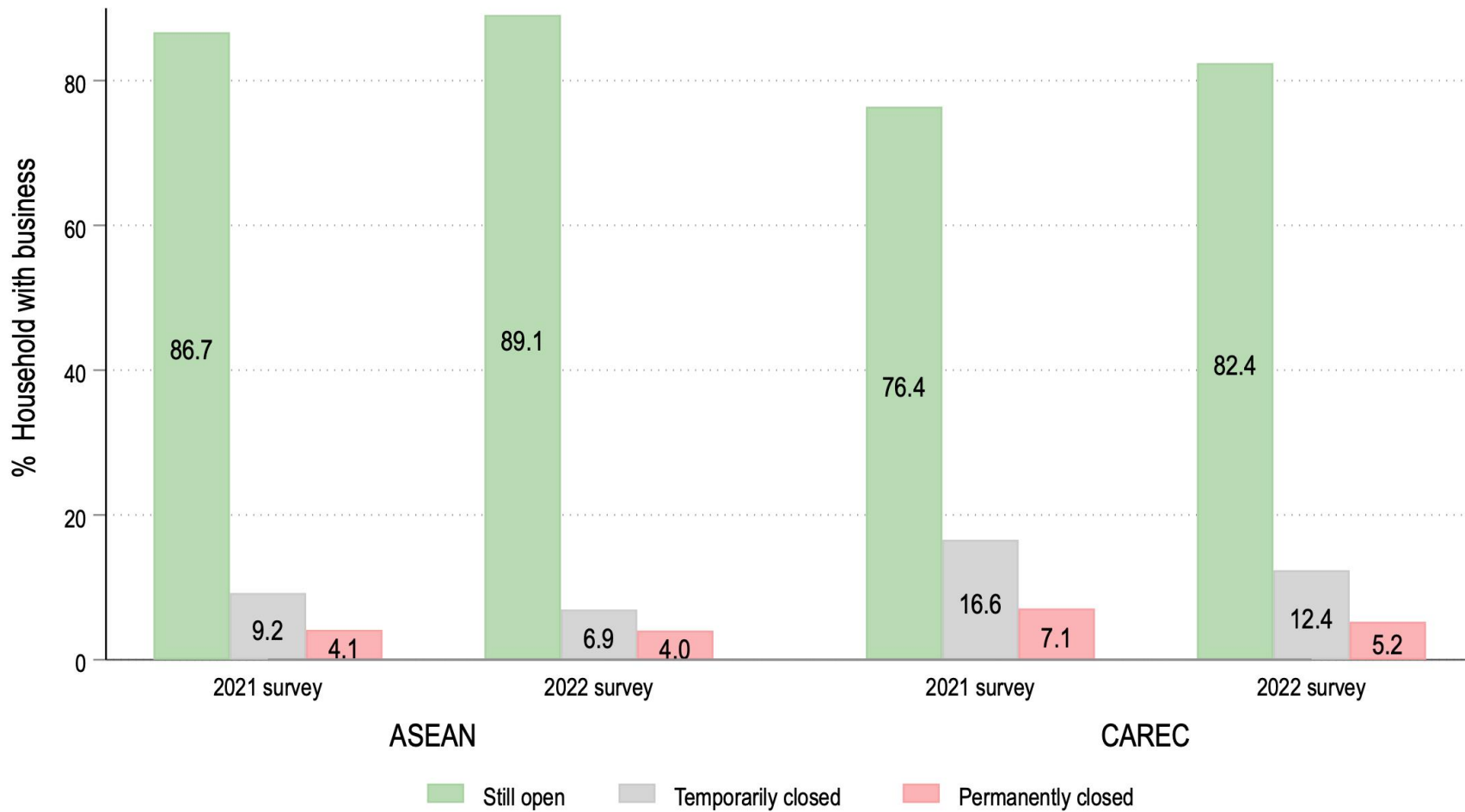
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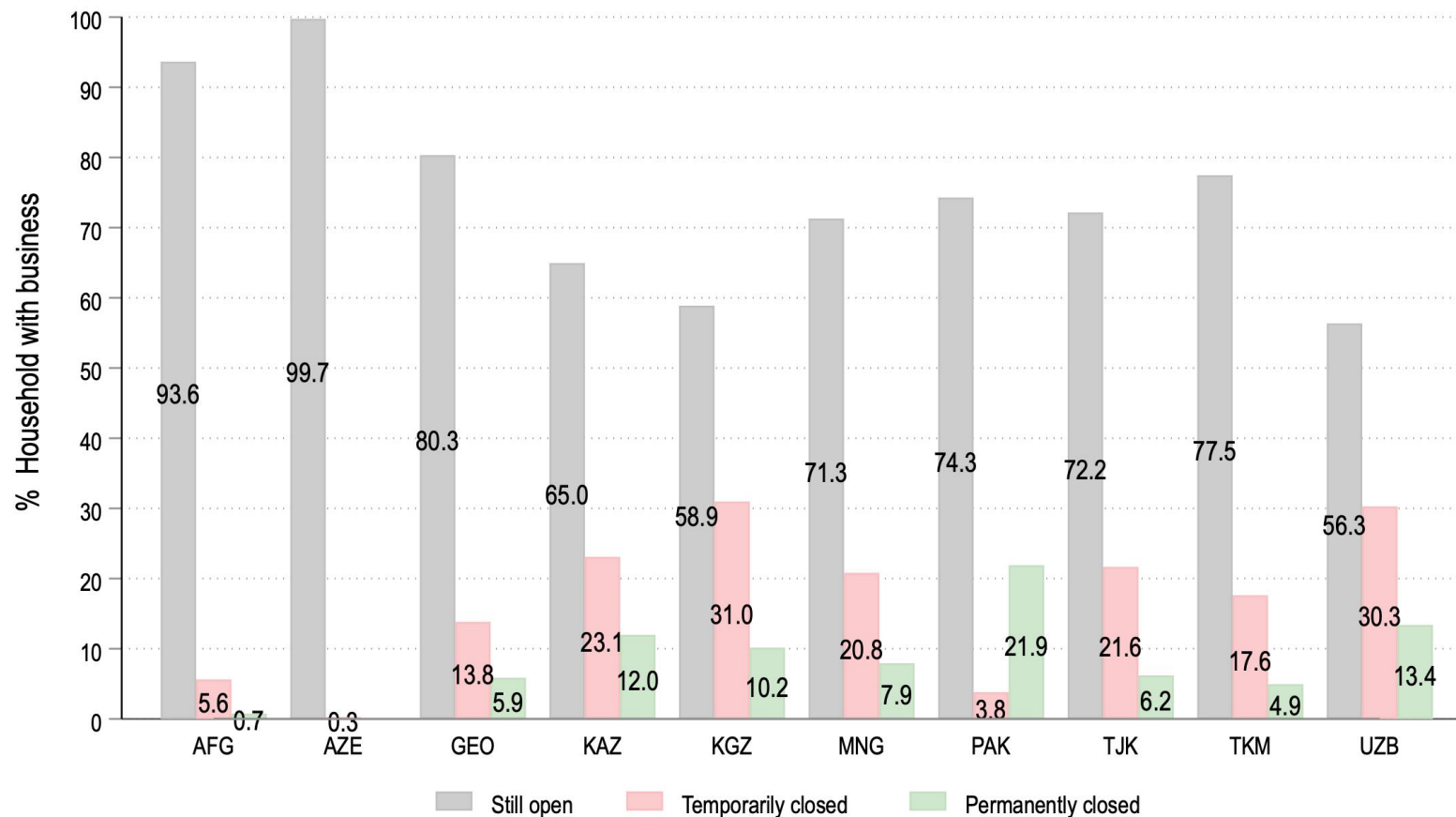
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Family business status



Family business status as of 2022: country comparison (CAREC)



Change in income/ turnover from family business since the pandemic (compared to December 2019)



Change in turnover from family business as of 2022: country comparison (CAREC)

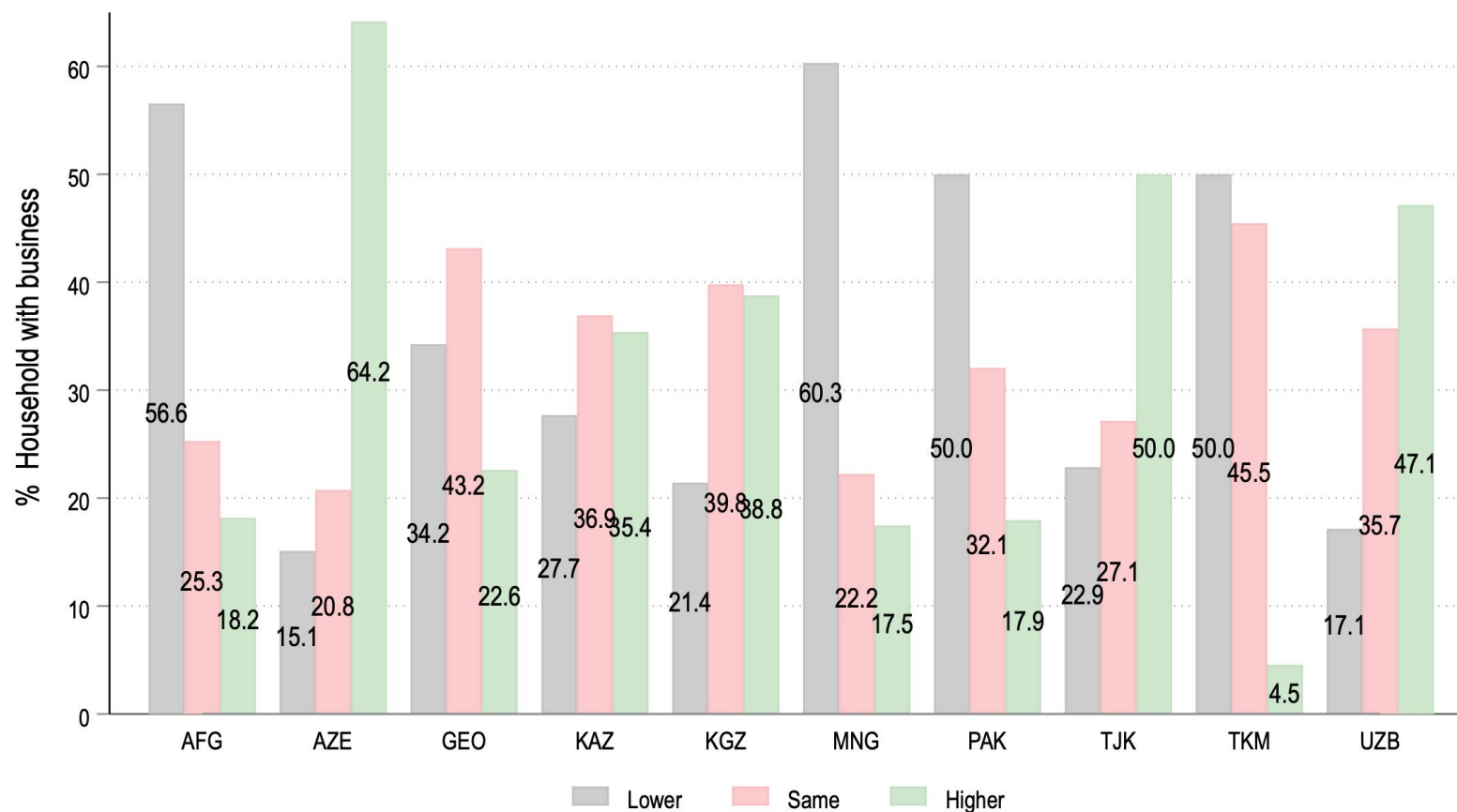


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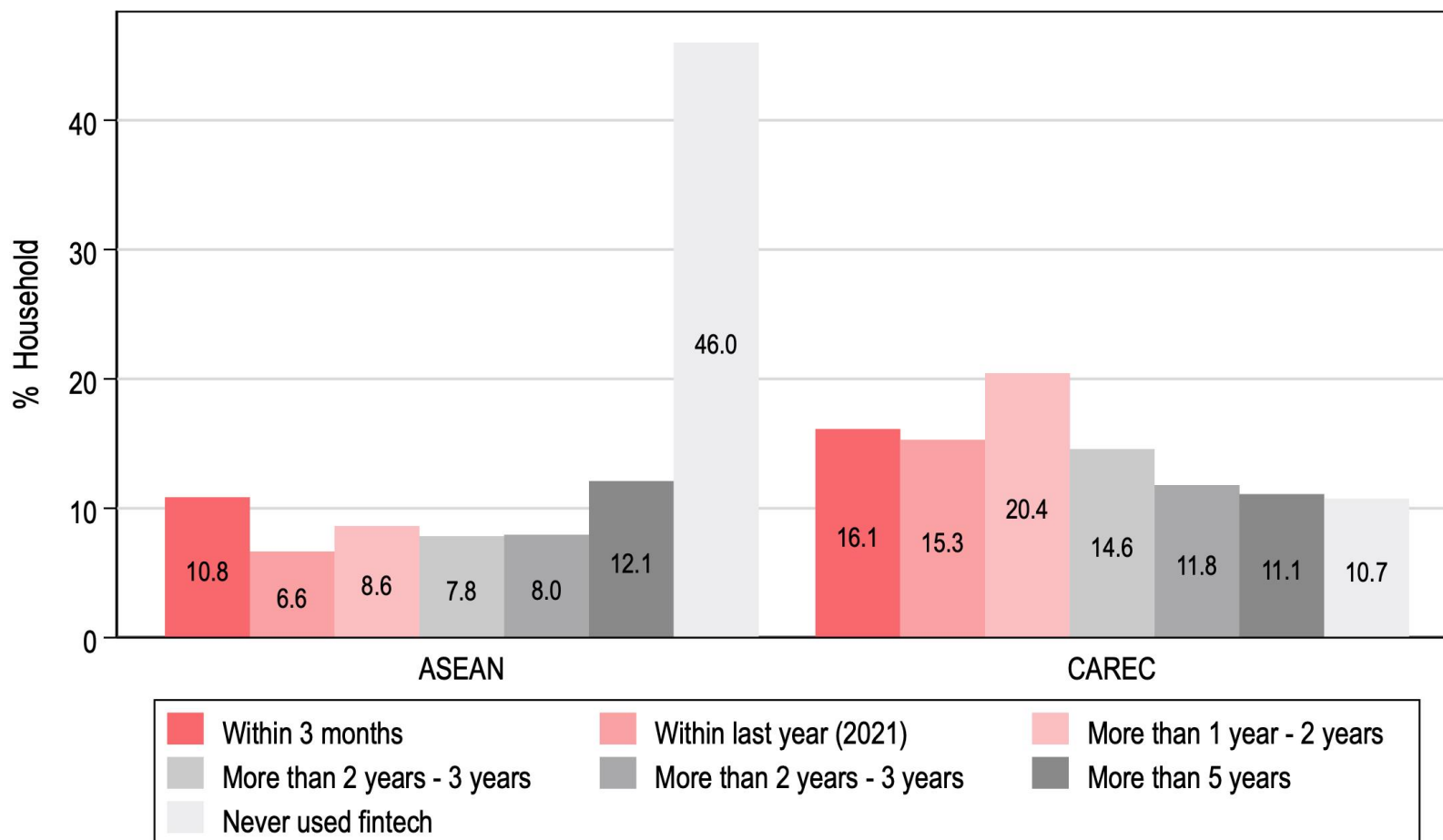
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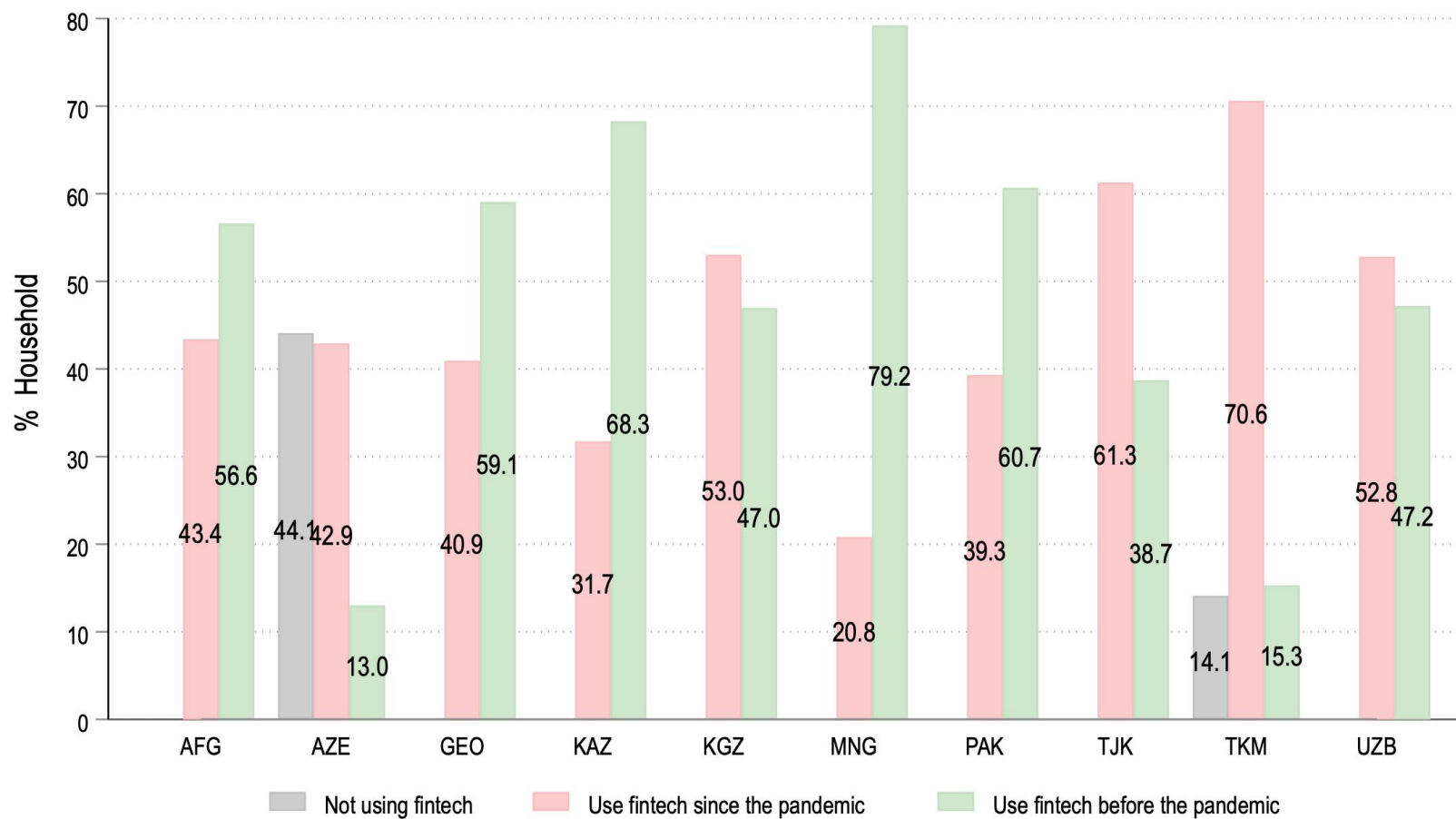
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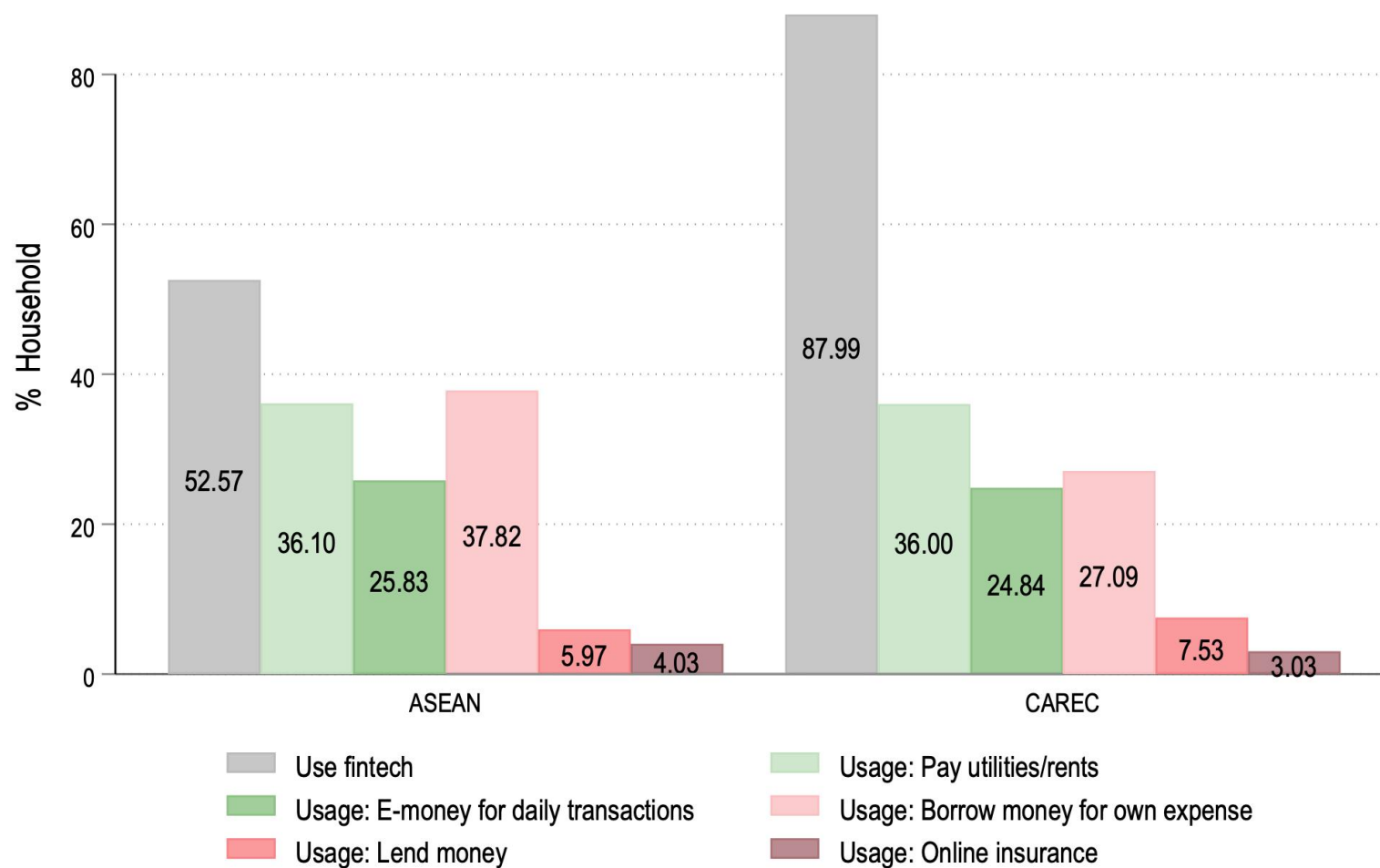
HHs started using fintech since the pandemic (especially in CAREC)



Fintech use: country comparison (CAREC)



Usage of fintech in dairy transaction



Usage of fintech in family business

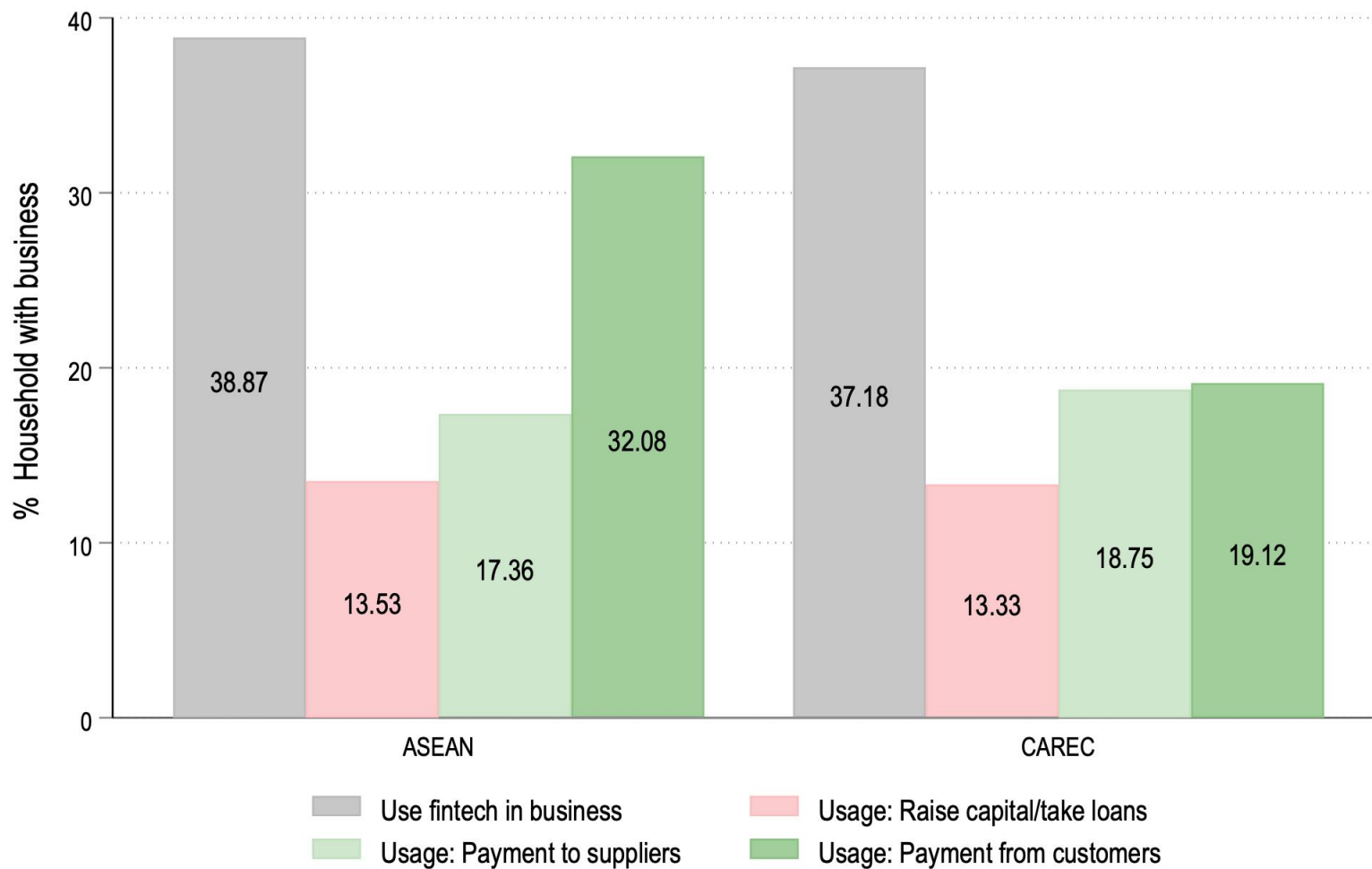


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Fintech related research questions

- RQ1: Who started using fintech in family business?

$$Fintech_{ic} = \alpha + \beta' X_{ic} + \mu_c + \varepsilon_{ic}$$

$Fintech_i$: whether HH adopted fintech in family business

X_i : family business characteristics, μ_c : country fixed effect

- RQ2: What are the impact of using fintech on (a) family business and (b) HH financial condition?

$$\Delta y_{ic} = \alpha + \beta Fintech_{ic} + \gamma' X_{ic} + \mu_c + \varepsilon_{ic}$$

Δy_i : change in variables of interest during the pandemic
i.e., financial conditions, family business performances

$Fintech_i$: whether HH used fintech

RQ1: Who started using fintech in family business?

	(1)	(2)	(3)
	ALL	ASEAN	CAREC
Owner: Female	-0.365*** (0.118)	-0.352** (0.147)	-0.457** (0.215)
Owner: High school graduate	0.000 (0.129)	0.169 (0.190)	-0.233 (0.182)
Owner: College school graduate	0.490*** (0.131)	1.055*** (0.203)	0.009 (0.180)
Number of workers in 2019: 1	-0.589*** (0.203)	-1.237*** (0.273)	0.523 (0.372)
Number of workers in 2019: 2-9	-0.596*** (0.196)	-1.027*** (0.255)	0.350 (0.368)
	⋮	⋮	⋮
Lockdown	0.092 (0.120)	0.022 (0.154)	0.266 (0.210)
Rural area	-0.544*** (0.130)	0.011 (0.318)	-0.752*** (0.149)
Constant	-0.758** (0.374)	-0.708 (0.545)	-1.280** (0.604)
Observations	2396	1041	1355
Country fixed effects	Yes	Yes	Yes

Notes: Standard errors in parentheses. *p < 0.1, ** p < 0.05, *** p < 0.01.

No significant differences were found across business sectors.

RQ 2a: Fintech use and family business conditions since the pandemic: ALL sample

	Business opening		Increased turnover		Decreased-Same-Increased	
	(1) logit	(2) logit	(3) logit	(4) logit	(5) ologit	(6) ologit
Use fintech in family business	0.120 (0.129)		0.432*** (0.114)		0.176* (0.090)	
Raise capital/take loans		0.006 (0.202)		0.300* (0.161)		0.255* (0.131)
Payment to suppliers		0.394** (0.185)		0.302* (0.159)		0.180 (0.125)
Payment from customers		0.131 (0.153)		0.082 (0.143)		-0.139 (0.111)
Number of workers in 2019: 1			-0.044 (0.232)	-0.051 (0.232)	0.009 (0.181)	-0.006 (0.181)
Number of workers in 2019: 2-9			0.248 (0.221)	0.243 (0.221)	0.099 (0.175)	0.089 (0.175)
Owner: Female	0.515*** (0.130)	0.520*** (0.130)	-0.040 (0.129)	-0.053 (0.129)	0.065 (0.101)	0.048 (0.101)
Owner: High school graduate	0.010 (0.167)	0.005 (0.167)	-0.063 (0.147)	-0.061 (0.147)	-0.189* (0.109)	-0.184* (0.109)
Owner: College school graduate	0.240 (0.175)	0.221 (0.175)	0.007 (0.149)	0.007 (0.150)	-0.066 (0.113)	-0.046 (0.113)

RQ 2a: Fintech use and family business conditions since the pandemic: CAREC sample

	Business opening		Increased turnover		Decreased-Same-Increased	
	(1) logit	(2) logit	(3) logit	(4) logit	(5) ologit	(6) ologit
Use fintech	0.009 (0.156)		0.667*** (0.163)		0.428*** (0.128)	
Raise capital/take loans		-0.246 (0.246)		0.414* (0.235)		0.523*** (0.183)
Payment to suppliers		0.390* (0.210)		0.243 (0.215)		0.095 (0.162)
Payment from customers		0.090 (0.185)		0.250 (0.208)		-0.024 (0.161)
Number of workers in 2019: 1			-0.772** (0.361)	-0.753** (0.358)	-0.738** (0.290)	-0.747*** (0.289)
Number of workers in 2019: 2-9			-0.214 (0.347)	-0.173 (0.344)	-0.420 (0.284)	-0.407 (0.282)
Owner: Female	0.557*** (0.160)	0.564*** (0.161)	0.183 (0.225)	0.143 (0.225)	0.264 (0.178)	0.241 (0.178)
Owner: High school graduate	0.034 (0.207)	0.020 (0.208)	-0.017 (0.214)	-0.027 (0.213)	-0.226 (0.154)	-0.224 (0.154)
Owner: College school graduate	0.257 (0.211)	0.251 (0.211)	-0.135 (0.214)	-0.150 (0.213)	-0.266* (0.156)	-0.266* (0.155)

RQ 2b: Fintech use and financial condition since the pandemic: ALL sample

	Any financial difficulty			No-some-moderate-severe		
	(1) logit	(2) logit	(3) logit	(4) ologit	(5) ologit	(6) ologit
Use fintech	-0.360*** (0.075)			-0.266*** (0.047)		
Started using before the pandemic		-0.127** (0.056)			-0.135*** (0.038)	
Started using since the pandemic		-0.185*** (0.058)			-0.172*** (0.043)	
Pay utilities/rents			-0.194*** (0.055)			-0.160*** (0.038)
Use e-money for daily transactions			0.016 (0.058)			-0.056 (0.041)
Borrow money for own expense			-0.113* (0.058)			-0.101** (0.041)
Lend money			0.561*** (0.092)			0.580*** (0.065)
Use online insurance			-0.135 (0.114)			-0.119 (0.087)

Notes: Standard errors in parentheses. *p < 0.1, ** p < 0.05, *** p < 0.01.

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Conclusion

- We found better family business condition in 2022 survey compared to that in 2021 survey, yet there are some country differences
- We also observed increased use of fintech in CAREC
- Fintech use seems to relate to better (i) family business conditions & (ii) financial condition
- We will investigate:
 - Endogeneity issue of fintech variables
 - Mechanism behind our baseline analysis
 - Heterogeneous effects of fintech
e.g., male vs. female owner, micro vs. small business

Reference

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Thank You!

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