

Household Finance and Consumption Survey in the Czech Republic

Jan Brůha

Economic Research Division
Monetary Department, CNB

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Outline

1. The Czech household finance and consumption survey
2. Assets, liabilities, net wealth – an overview
3. Patterns by household type:
 - Assets, liabilities – participation rates and conditional amounts
 - Debt burden and financial vulnerability
 - Net wealth and gross income
 - Consumption expenditures
4. Net wealth inequality: international comparison
5. Wealthy hand-to-mouth households



1. The Czech household finance and consumption survey

- Project: Czech National Bank and Czech Statistical Office in cooperation with the ESCB HFCS Network coordinated by the European Central Bank
- Data collection – conducted by the Czech Statistical Office
 - Yearly (2020, 2021, 2022)
 - Integration with the EU-SILC and HBS
 - Target: 3,000 households in 3 years
- Fieldwork for HFCS CZ 2020
 - February-December 2020. Completed.
 - 1,555 households in one year
- This presentation: Preliminary results, without weights, without imputations... a first look at the data

2.1 Assets and asset components

- Main asset components:
 - Household main residence
 - Financial assets: deposits
- Asset distributions skewed to the right
- On the data collection side, pretty good item response rates:
 - < 0.3% missing (1-5 obs out of 1,555)
 - < 4.3 % missing for pensions (67 obs)

Asset type	Has item %	For those having item, values in CZK							Missing*) #
		Mean	Min	p25	Median	p75	p95	Max	
Total assets	99.0	3,107,470	0	1,020,000	2,275,000	3,945,000	8,090,000	72,556,000	0
Real assets	94.7	2,843,382	0	1,005,500	2,071,000	3,577,500	7,330,000	67,010,000	1
Household main residence	78.9	2,597,889	130,000	1,300,000	2,000,000	3,200,000	6,000,000	25,000,000	0
Other real estate property	21.0	1,649,998	5,000	200,000	900,000	1,800,000	6,000,000	43,000,000	2
Vehicles	65.1	195,114	2,000	50,000	100,000	230,000	600,000	11,000,000	2
Valuables	56.7	52,511	400	5,000	10,000	30,000	250,000	2,000,000	5
Self-employment business wealth	8.2	1,776,697	0	20,000	253,000	1,000,000	7,000,000	45,000,000	4
Financial assets	97.2	395,323	0	70,000	190,000	460,000	1,490,000	11,605,000	2
Deposits	92.6	263,850	0	40,000	100,100	280,000	1,000,000	10,105,000	2
Sight accounts	91.6	206,602	0	30,000	80,000	200,000	750,000	10,000,000	2
Savings accounts	33.1	167,494	1,700	47,000	100,000	200,000	519,320	2,000,000	4
Mutual funds	7.0	169,158	1,000	40,000	66,000	200,000	650,000	1,900,000	1
Bonds	1.2	340,526	10,000	100,000	200,000	500,000	1,100,000	1,100,000	0
Shares (publicly traded)	3.6	278,346	900	22,500	90,000	235,000	1,200,000	3,250,000	0
Money owned to households as priv. loans	8.0	136,770	200	14,000	50,000	120,000	500,000	2,500,000	0
Other fin. assets (incl. long-term cash savings)	18.8	55,165	500	10,000	25,000	50,000	200,000	700,000	0
Priv. pension plans and whole life insurances	61.7	160,524	300	50,000	100,000	200,000	500,000	2,100,000	62
Private pension plans	60.0	136,418	300	50,000	100,000	180,000	400,000	1,600,000	67
Whole life insurance	14.5	117,510	250	30,000	60,000	127,500	400,000	1,500,000	5

Note: *) Number of missing values for those respondents who answered "has item"

2.2 Debt and debt components

- Main debt components
 - Mortgage debt, main residence
- Good item response rates
 - <2% missing
- Net wealth
 - Right-tailed distribution
 - Mean 2,962 th. CZK
 - Median 2,141 th. CZK

Liability type	Has item	For those having item, values in CZK							Missing*)
	%	Mean	Min	p25	Median	p75	p95	Max	#
Total debt	21.6	575,367	0	76,000	277,100	837,900	2,091,700	4,899,400	31
Mortgage debt	12.7	885,684	0	306,800	672,700	1,187,200	2,394,800	4,899,400	22
Household main residence mortgage	11.8	845,710	0	302,200	684,200	1,187,200	2,283,100	2,795,700	25
Other real estate property	1.4	1,017,735	30,000	360,000	490,000	1,181,620	3,000,000	4,500,000	0
Non-mortgage debt	12.5	124,196	0	20,000	70,000	170,000	420,000	900,000	29
Credit line/overdraft	0.2	75,000	5,000	5,000	20,000	200,000	200,000	200,000	0
Credit card	0.4	9,100	3,000	3,000	5,000	13,600	25,000	25,000	0
Other non-mortgage	12.0	128,744	0	25,000	76,000	180,000	490,000	900,000	29
Private loans	0.9	75,050	0	12,000	39,000	85,000	300,000	300,000	0
Other non-private non-collaterised loans	11.2	134,001	180	25,000	80,000	185,000	490,000	900,000	31

2.3 Net wealth

	Has item	For those having item, values in CZK							Missing*)
	%	Mean	Min	p25	Median	p75	p95	Max	#
Net wealth, excl. public and occup. pensions	100.0	2,962,642	-165,000	910,000	2,141,000	3,760,000	7,920,000	72,556,000	0

Note: *) Number of missing values for those respondents who answered "has item"

3.1 Particip. rate and conditional amount of assets

- Evidence of heterogeneity in asset components across households
 - Large drops in asset holdings in the bottom of income and wealth distributions

Household characteristics	Real assets		Financial assets		Total assets	
	Has item	Median	Has item	Median	Has item	Median
	%	CZK	%	CZK	%	CZK
All households	94.7	2,071,000	97.2	190,000	99.0	2,275,000
Housing status						
Owner - outright	100.0	2,436,000	98.1	230,000	100.0	2,750,000
Owner with mortgage	100.0	2,752,500	99.4	221,000	100.0	3,078,450
Renter or other	75.0	50,000	93.3	100,000	95.1	146,000
Percentile of net wealth						
Below 20	74.6	50,000	92.0	61,350	94.9	135,000
20-39.9	99.4	1,100,000	97.7	106,000	100.0	1,283,000
40-59.9	99.7	2,001,000	98.7	200,000	100.0	2,195,000
60-79.9	100.0	3,070,000	97.7	275,000	100.0	3,513,000
80-100	100.0	5,300,000	100.0	618,000	100.0	6,015,000
Percentile of gross income						
Below 20	87.1	1,282,500	92.6	62,000	97.1	1,250,000
20-39.9	91.3	1,645,000	94.5	125,000	98.1	1,789,000
40-59.9	97.1	2,052,500	99.4	200,000	100.0	2,275,000
60-79.9	98.4	2,278,000	99.7	250,000	99.7	2,693,138
80-100	99.7	3,709,000	100.0	465,000	100.0	4,310,000

3.2 Particip. rate and conditional amount of liabilities

- Liabilities: dominant mortgage debt.
 - Differences by household types, by wealth and income

Household characteristics	Mortgage debt		Non mortgage debt		Total debt	
	Has item %	Median CZK	Has item %	Median CZK	Has item %	Median CZK
All households	12.7	672,700	12.5	70,000	21.6	277,100
Housing status						
Owner - outright	1.1	414,000	9.2	70,000	10.0	80,000
Owner with mortgage	100.0	695,700	27.8	100,000	100.0	695,700
Renter or other	1.8	1,550,000	14.6	50,000	15.5	50,000
Percentile of net wealth						
Below 20	4.8	701,650	17.7	50,000	19.9	70,000
20-39.9	15.4	570,800	14.5	75,000	25.4	299,250
40-59.9	14.1	631,300	9.3	75,000	20.9	336,700
60-79.9	14.5	758,100	12.5	89,950	21.9	328,950
80-100	14.5	738,800	8.4	80,000	19.9	540,300
Percentile of gross income						
Below 20	3.2	122,100	4.8	22,500	7.1	40,000
20-39.9	2.9	379,200	10.3	82,750	11.9	100,000
40-59.9	8.0	464,400	12.9	65,000	19.0	95,000
60-79.9	20.9	738,800	16.1	37,500	32.5	336,700
80-100	28.3	805,200	18.3	100,000	37.6	581,050

3.3 Debt burden and financial vulnerability (ratios, %)

- Heterogeneity by housing status
 - Highest DTI for owners with mortgage
 - Highest DTA for renters
- Heterogeneity by net wealth, income
 - Higher debt (in absolute terms, DTI), lower indebtedness (DTA)

Household characteristics	Debt-to-asset ratio	Debt-to-income ratio*)	Mortgage debt service-to-income ratio	Loan-to-value ratio of main residence
	(DTA)		(MDSTI)	(LTV)
	Conditional median	Conditional median	Conditional median	Conditional median
All households	15.5	43.9	7.8	31.5
Housing status				
Owner - outright	3.0	18.4	0.0	
Owner with mortgage	23.5	94.1	8.2	31.5
Renter or other	46.7	15.2	0.0	
Percentile of net wealth				
Below 20	56.7	19.7	7.6	83.9
20-39.9	21.0	53.9	11.1	45.9
40-59.9	13.7	44.5	6.7	33.3
60-79.9	10.2	54.6	7.7	22.3
80-100	5.2	56.9	7.5	19.0
Percentile of gross income				
Below 20	12.8	20.6	13.9	20.4
20-39.9	21.7	39.1	6.6	41.9
40-59.9	14.5	21.9	6.0	31.0
60-79.9	18.8	49.6	9.0	42.1
80-100	14.7	55.6	7.5	25.8

Note: *) The ratio of total debt to yearly gross household income.

3.4 Net wealth and gross income

- Evidence of heterogeneity
- Right-tailed distributions

Household characteristics	Income		Net wealth	
	Median	Mean	Median	Mean
All households	410,000	522,083	2,141,000	2,962,642
Housing status				
Owner - outright	397,960	519,584	2,731,000	3,730,747
Owner with mortgage	779,538	786,867	2,350,400	2,950,353
Renter or other	311,384	384,753	126,000	517,540
Percentile of net wealth				
Below 20	288,408	346,107	105,000	167,930
20-39.9	322,290	402,072	1,203,000	1,170,102
40-59.9	401,820	509,279	2,141,000	2,165,221
60-79.9	488,421	574,443	3,375,000	3,408,095
80-100	722,693	778,517	5,910,000	7,901,862
Percentile of gross income				
Below 20	169,196	168,202	1,134,000	1,548,191
20-39.9	287,000	282,871	1,717,000	1,950,358
40-59.9	410,000	414,502	2,202,000	2,878,394
60-79.9	632,712	640,372	2,400,000	3,165,793
80-100	1,024,557	1,104,470	3,830,000	5,270,475

3.5 Consumption, annual median expenditures

- Wealthier households consume **more in absolute terms** and less as share of income.
 - Similar pattern for individual categories (food, utilities, trips and holidays).
- Same pattern is observed for income.
- Owners with mortgage – consume less as share of income, but top is absolute terms.
 - Similar pattern for individual categories (food, utilities, trips and holidays).

Household characteristics	Food		Utilities	Trips and holidays	Total	
	CZK	% Income	CZK	CZK	CZK	% Income
All households	78,000	19.1	26,400	10,000	124,200	29.2
Housing status						
Owner - outright	78,000	19.4	27,720	10,000	126,800	30.1
Owner with mortgage	108,000	14.9	38,400	25,000	172,320	23.9
Renter or other	66,000	20.6	13,800	3,000	94,100	29.8
Percentile of net wealth						
Below 20	60,000	21.0	13,800	2,000	87,600	29.5
20-39.9	72,000	21.0	19,200	3,500	100,056	30.3
40-59.9	78,000	19.0	30,300	10,000	127,200	30.1
60-79.9	92,400	18.4	32,400	10,000	149,832	29.4
80-100	108,000	15.5	38,280	30,000	172,400	26.2
Percentile of gross income						
Below 20	48,000	27.9	16,200	0	69,600	41.1
20-39.9	64,368	23.2	21,360	3,000	98,640	35.8
40-59.9	78,000	19.4	26,400	10,000	123,444	30.3
60-79.9	96,000	15.4	30,840	20,000	155,040	24.7
80-100	120,000	12.0	38,400	33,000	202,200	19.1

4. Net wealth inequality

Country	Inequality measures			
	Gini coefficient	P90/P50	Bottom 50 (in %)	Top 5 (in %)
Austria	0.73	6.3	3.6	43.1
Belgium	0.63	3.6	9.2	35.0
Cyprus	0.75	4.8	4.8	49.3
Czech Republic	0.52	2.8	15.5	25.4
Germany	0.74	7.9	2.6	40.8
Estonia	0.71	4.7	6.8	45.4
Finland	0.66	4.5	6.0	32.9
France	0.67	4.7	5.8	35.5
Greece	0.60	3.7	10.0	27.0
Croatia	0.61	3.3	11.8	35.1
Hungary	0.65	4.0	9.7	39.2
Ireland	0.67	4.7	6.7	35.9
Italy	0.61	3.6	9.9	30.0
Lithuania	0.59	3.3	13.7	36.0
Luxembourg	0.65	3.7	8.7	38.0
Latvia	0.68	4.6	7.1	38.7
Malta	0.60	3.0	12.6	37.0
Netherlands	0.78	6.6	0.5	42.0
Poland	0.57	3.2	13.1	29.6
Portugal	0.68	4.3	8.1	41.6
Slovenia	0.59	3.2	12.0	32.2
Slovakia	0.54	2.9	15.2	29.1
Spain	0.68	4.5	7.7	39.9
United Kingdom	0.62	4.7	8.7	29.3
United States	0.86	12.2	1.2	65.1

- Net wealth inequality is, overall, high. Top 5% European households hold 30-50% of total net wealth.
- In the Czech Republic (along with Slovakia), net wealth inequality is on the lower side.
- Similar pattern using alternative inequality measures.

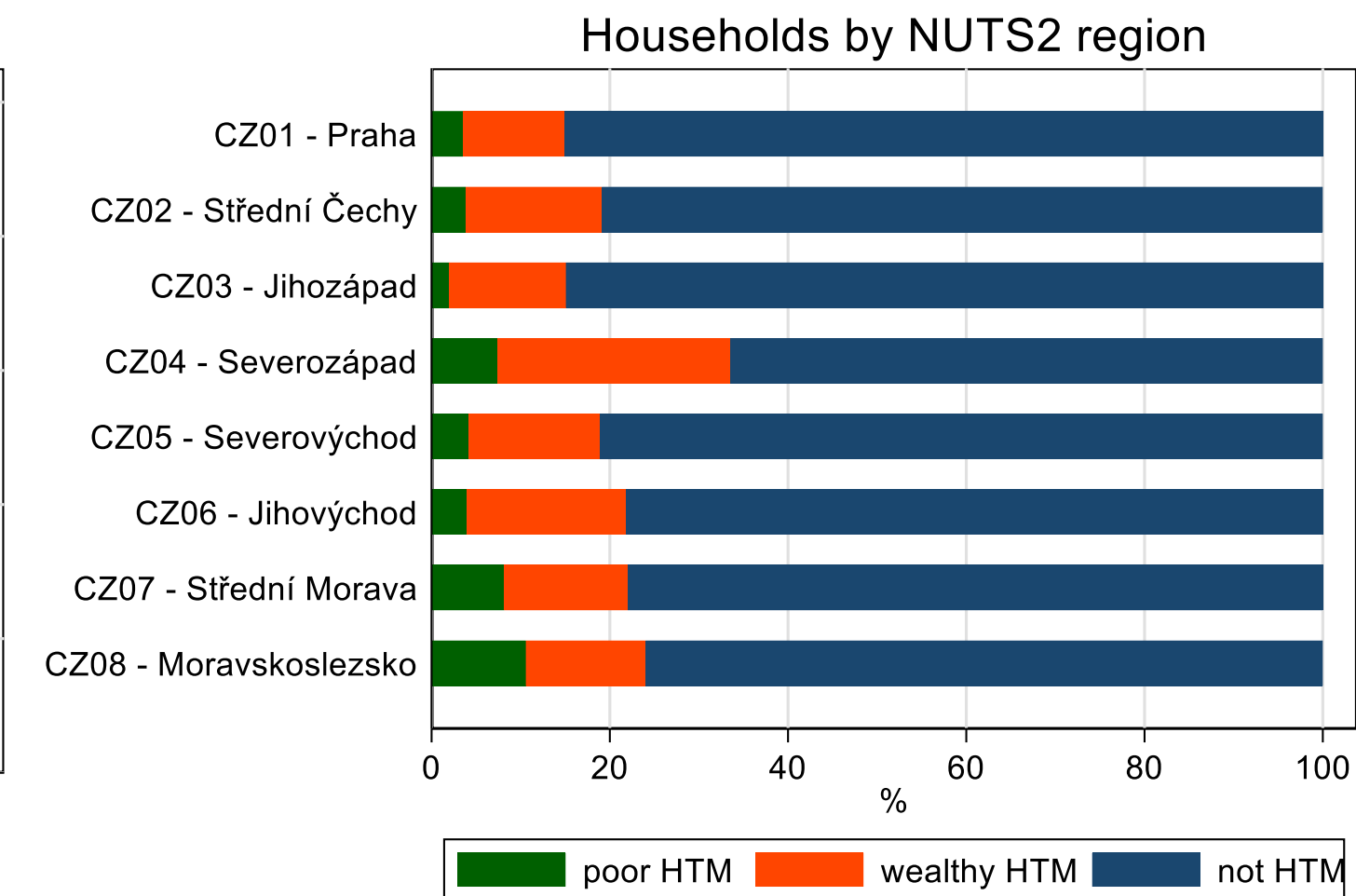
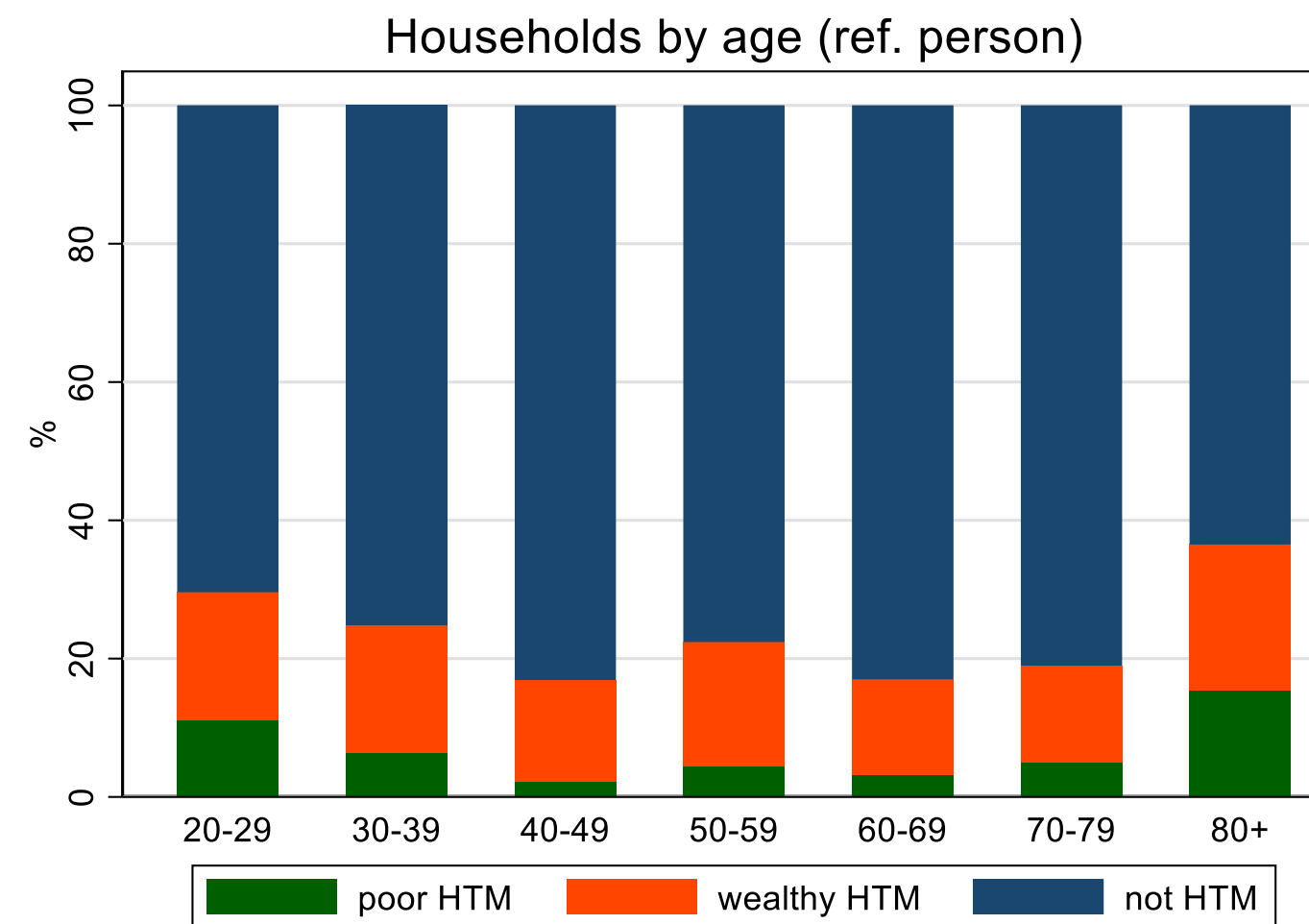
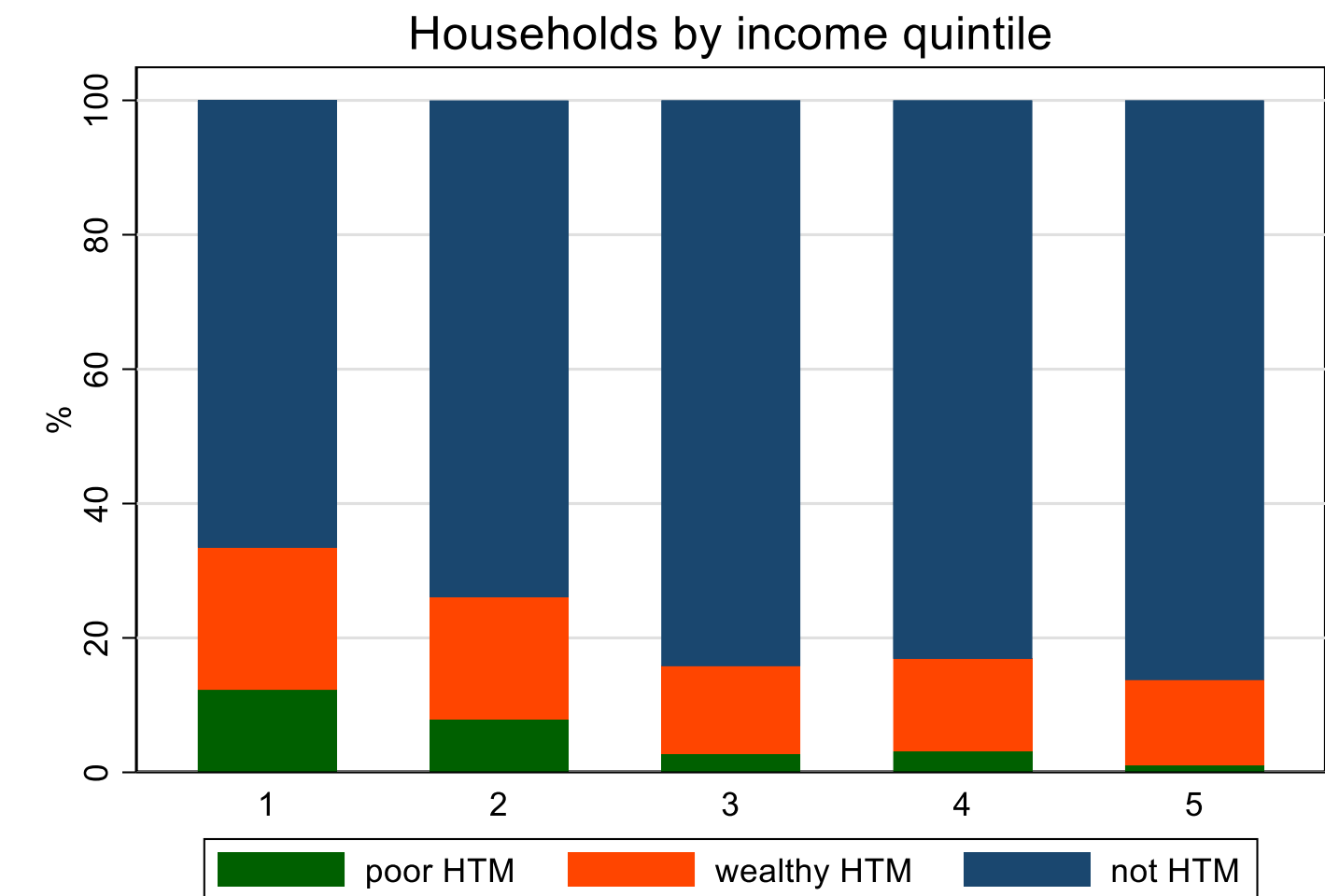
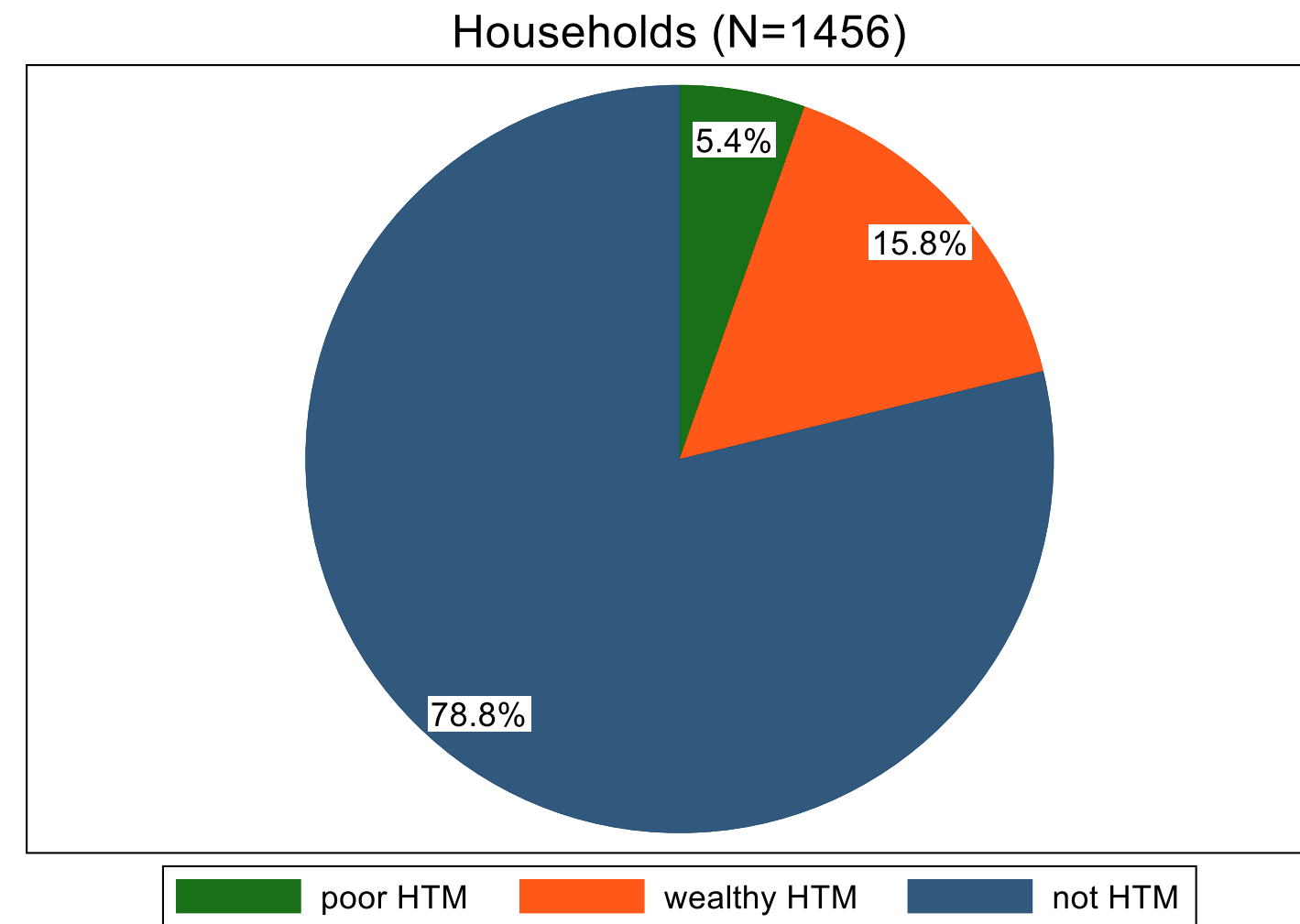
5. Wealthy hand-to-mouth households

- *marginal propensity to consume*: how sensitive is household consumption to transitory income shocks?
- “traditional” view:
 - most HH have positive wealth and low MPC due to consumption smoothing (PIH)
 - small number of poor “hand-to-mouth” HH have zero wealth and high MPC
- wealthy hand-to-mouth households: positive wealth but little liquid assets
 - e.g. they own a house but their bank account is empty
 - consumption smoothing harder => higher MPC!
- why should macroeconomists care?
 - proportion of wealthy HTM households will affect aggregate MPC
 - higher aggregate MPC => economy responds more to fiscal or monetary shocks

5. Wealthy hand-to-mouth households

preliminary results for CZ:

- more than one in five households is hand-to-mouth; among these, 3/4 have some illiquid wealth
- wealthy HTM spread evenly across income and age categories; some regional variations
- proportion bit lower compared with other countries, e.g. Germany: 7.4% poor HTM, 24.8% wealthy HTM (Kaplan et al., 2014)



 We are happy of having the first historical HFC data for the Czech Republic

- The data were collected by the Czech Statistical Office
 - And **we appreciate a very good collaboration of our institutions**

Data access for independent research:

- upon request (after harmonisation and various checks, expected by the end 2022/ beginning 2023)
- currently available: wave 2017 (22 countries) and earlier waves

Resources:

- Household Finance Consumption Survey (HFCS)

https://www.ecb.europa.eu/stats/ecb_surveys/hfcs/html/index.en.html

- HFCS Czech Republic – Czech Statistical Office (in Czech):

<https://www.czso.cz/csu/xh/vyberove-setreni-o-financni-situaci-domacnosti-fsd-2020>

Authors of the presentation



Director, Economic Research Division,
Monetary Department

Jan Brůha

jan.bruha@cnb.cz



Research Coordinator,
Economic Research Division

Jan Babecký

jan.babecky@cnb.cz



Research Coordinator,
Economic Research Division

Ivan Sutóris

ivan.sutoris@cnb.cz