

Household Income and Wealth

*Insights from the Income and Expenditure
and Financial and Wealth Accounts*

CABE Webinar June 19, 2023



National Economic
Accounts Division

Division des comptes
économiques nationaux



Statistics
Canada

Statistique
Canada

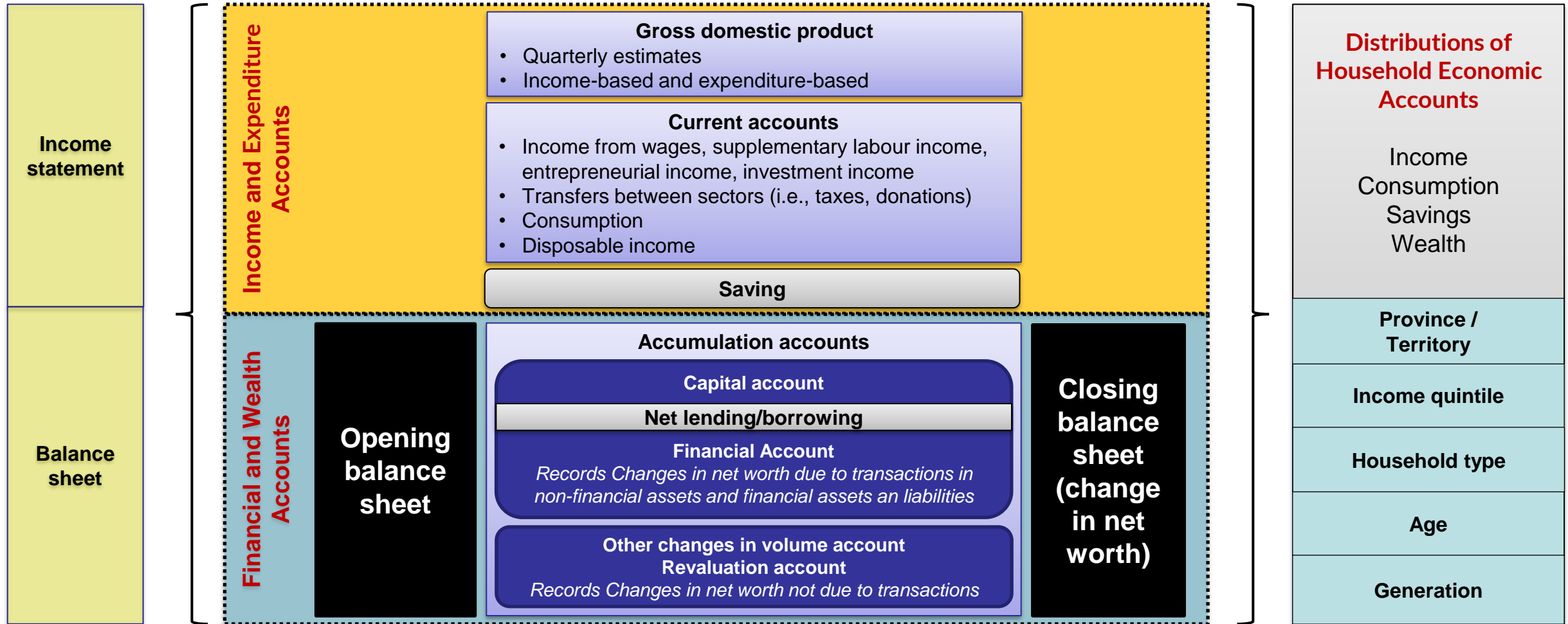
Canada

Outline

- Sequence of the Macroeconomic Accounts
- Household Sector
- Current and capital accounts
- Distribution of Household Economic Accounts
 - Income, Consumption, and Savings
- Financial and Wealth Accounts
- Distribution of Household Economic Accounts
 - Wealth



Sequence of the macroeconomic accounts



Program details

Item	Income and Expenditure Accounts (IEA)	Financial and Wealth Accounts (FWA)	Distributions of Household Economic Accounts (DHEA)
Frequency	Quarterly (60 days after reference period)	Quarterly (75 days after reference period)	Quarterly (90 days after reference period)
Sector coverage	Households, corporations, non-profit institutions serving households and government sectors	Same as IEA, but with additional sector detail	Household sector only
Regionality	Canada aggregate Provincial and territorial (annual only)	Canada aggregate	Canada, provinces, distributions for types of households
Elements	<ul style="list-style-type: none"> • Gross domestic product (GDP) • Disposable income • Final consumption expenditure • Net Saving • Business investment • International trade 	<ul style="list-style-type: none"> • Assets (financial, non-financial) • Financial liabilities (i.e., mortgage, non-mortgage) • Net worth • Net lending/borrowing by sector 	<ul style="list-style-type: none"> • Income, consumption, saving, assets, liabilities and net worth • Broken down by income quintile, age, household composition etc.

The Household Sector



For the purposes of the System of National Accounts, a household is:

- A group of persons who **share the same living accommodation**, who **pool** some or all their **income and wealth** and who **consume collectively**, mainly housing and food.
- Households often coincide with families, but members of the same household do not necessarily have to belong to the same family.
- Persons living permanently in an institution, are treated as belonging to a single institutional household when they have little or no autonomy of action or decision in economic matters.
- Includes unincorporated businesses



Income and Expenditure Accounts



Income and expenditure accounts

- The GDP by income and expenditure are a balanced set of accounts
- These items are carried through to the institutional sector accounts

Table 1		Table 2	
Gross domestic product, income-based		Gross domestic product, expenditure-based	
1 Compensation of employees	V62295549	1 Final consumption expenditure	V62305754
2 Wages and salaries	V62295550	2 Household final consumption expenditure	V62305755
3 Employers' social contributions	V62295551	8 Non-profit institutions serving households' final consumption expenditure	V62305761
4 Gross operating surplus	V62295552	9 General governments final consumption expenditure	V62305762
5 Net operating surplus: corporations	V62295553	10 Gross fixed capital formation	V62305763
6 Consumption of fixed capital: corporations	V62295554	11 Business gross fixed capital formation	V62305764
7 Consumption of fixed capital: general governments and non-profit institutions serving households	V62295555	17 Non-profit institutions serving households' gross fixed capital formation	V62305770
8 Gross mixed income	V62295556	18 General governments gross fixed capital formation	V62305771
9 Net mixed income	V62295557	19 Investment in inventories	V62305772
10 Consumption of fixed capital: unincorporated businesses	V62295558	23 Exports of goods and services	V62305776
11 Taxes less subsidies on production	V62295559	26 Less: imports of goods and services	V62305779
12 Taxes less subsidies on products and imports	V62295560		
13 Statistical discrepancy	V62295561	29 Statistical discrepancy	V62305782
14 Gross domestic product at market prices	V62295562	30 Gross domestic product at market prices	V62305783

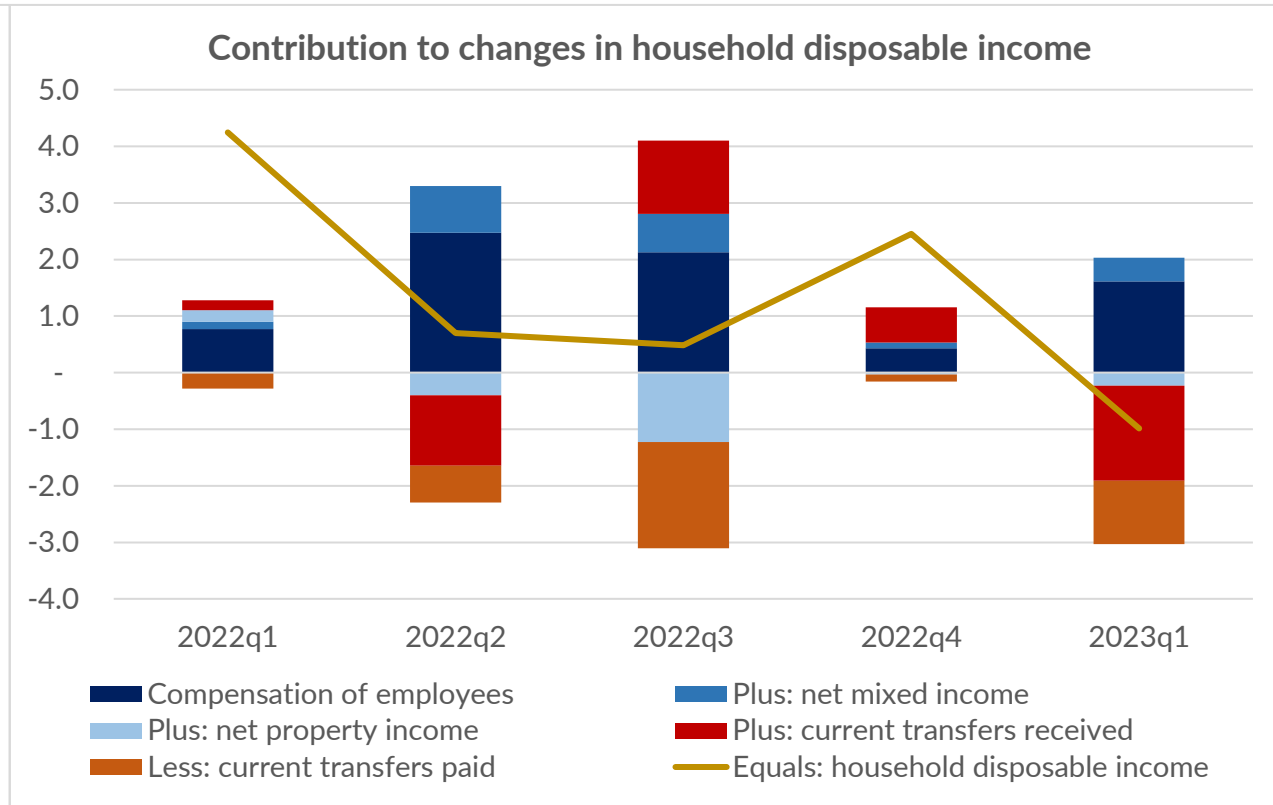
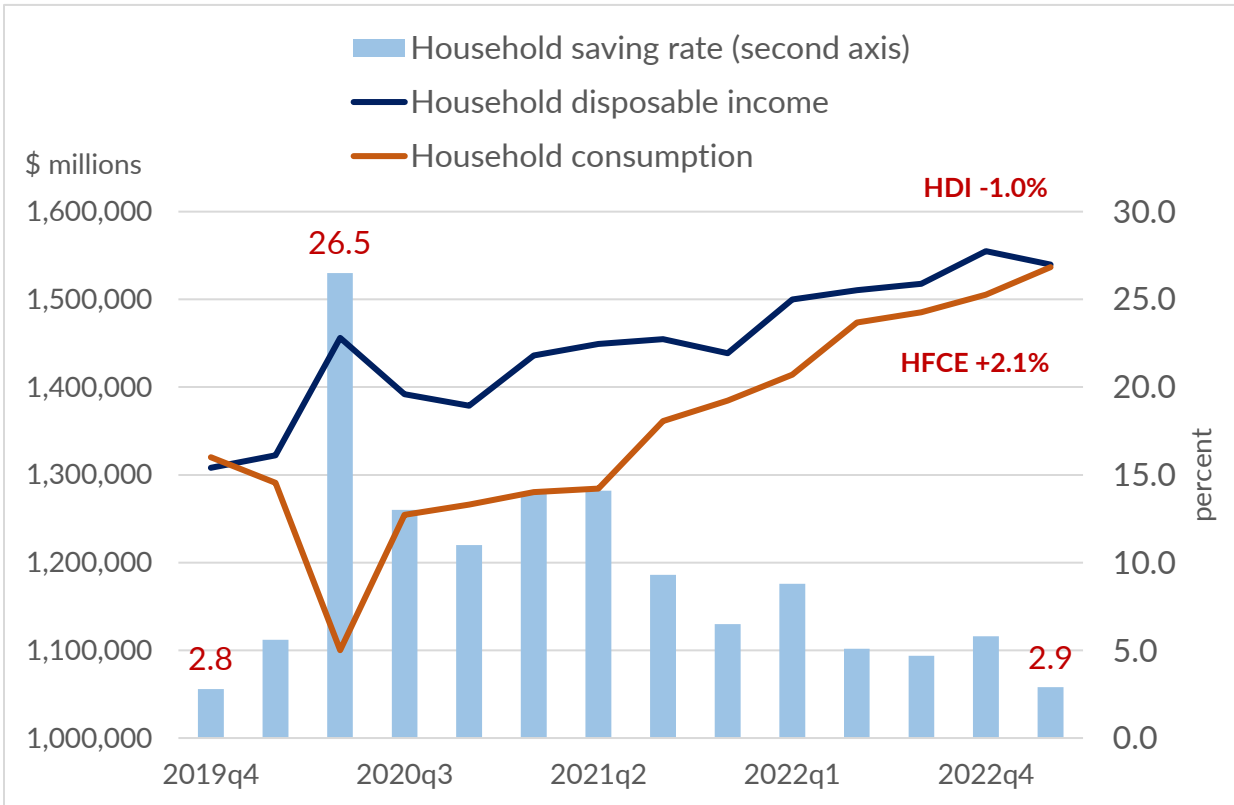
Household Current Account (Table: 36-10-0112-01)

Estimates (\$ millions)	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
Compensation of employees	1,351,912	1,377,868	1,393,380	1,409,352	1,434,020
Plus: net mixed income	227,812	236,452	241,412	245,204	251,608
Non-farm	94,892	97,164	97,088	97,432	97,304
Farm	7,728	9,752	10,868	9,584	9,560
Rental income of households	125,192	129,536	133,456	138,188	144,744
Plus: net property income	163,236	159,044	150,112	148,952	145,416
Property income received	231,040	235,780	241,708	256,280	266,080
Less: property income paid	67,804	76,736	91,596	107,328	120,664
Equals: primary household income	1,742,960	1,773,364	1,784,904	1,803,508	1,831,044
Plus: current transfers received	423,072	409,988	419,432	442,780	417,048
Less: current transfers paid	666,168	672,992	686,684	691,396	708,504
Equals: household disposable income	1,499,864	1,510,360	1,517,652	1,554,892	1,539,588
Less: household final consumption expenditure	1,414,220	1,473,568	1,485,408	1,505,484	1,536,868
Plus: change in pension entitlements	46,432	40,280	38,824	41,104	42,104
Equals: household net saving	132,076	77,072	71,068	90,512	44,824
Household saving rate (%)	8.8	5.1	4.7	5.8	2.9

- Net mixed income is the income earned by unincorporated businesses (“self-employed”) including owner-occupied renters
- Net property income includes investment income (e.g., interest and dividends) and resource rent.
- Current transfers includes those from/to governments, business, non-profits and non-residents (e.g., income taxes, EI, OAS, net premiums and claims under non-life insurance policies, lottery winnings).
- Change in pension entitlements represents the additional pension wealth accruing to households via transactions (e.g., employee and employer pension contributions, less pension benefits received by households).
- Saving represents the funds available to build non-financial or financial wealth



Disposable income falls while spending is up



- Lower transfers from governments: one-time inflationary support measures in previous quarter, and repayments of some [COVID-19 benefits](#)
- Lower net property income: more interest paid than received
- Saving rate approaching pre-pandemic level

Adjusted Disposable Income and Actual Final Consumption

Estimates (\$ millions)	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
Household disposable income	1,499,864	1,510,360	1,517,652	1,554,892	1,539,588
Plus: Social Transfers in Kind (STiK)	110,818	101,903	105,903	110,194	N/A
Equals: Adjusted household disposable income	1,610,682	1,612,263	1,623,555	1,665,086	
Household final consumption expenditure	1,414,220	1,473,568	1,485,408	1,505,484	1,536,868
Plus: Social Transfers in Kind (STiK)	110,818	101,903	105,903	110,194	N/A
Equals: Actual household final consumption	1,525,038	1,575,471	1,591,311	1,615,678	

- In the main presentation of the sector accounts, final expenditures by government and non-profit serving households (NPISH) include goods and services consumed by households
- An alternative presentation is to account for, Social Transfers in Kind (STiK) - those goods and services that are individually consumed by households, in the household sector.
- STiK only includes good and services consumed individually (e.g., health, education, recreation services).
- Collective services (e.g., defence, public infrastructure etc.) are not considered STiK.
- STiK is then added to household disposable income (HDI) and Household Final Consumption Expenditure (HFCE) to derive adjusted household disposable income (AHDI) and Household Actual Final Consumption (HAFC)
- No impact on household net saving



Capital Account (Table: 36-10-0112-01)

- Capital transfers include transfers of property (donations in-kind), debt forgiveness (i.e., student loans)
- Non-financial capital acquisitions are linked to the nominal gross fixed capital formation (i.e., investment) within expenditure-based GDP.
 - There are decomposed by sector
 - New assets relate to nominal GFCF and are largely comprised of new residential housing construction, although unincorporated business investment in things like machinery and equipment are also included
 - Existing assets includes transfers of existing capital stock or other non-financial assets between sectors.

Estimates (\$ millions)	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023
Household net saving	132,076	77,072	71,068	90,512	44,824
Plus: consumption of fixed capital at replacement cost	84,988	87,580	88,560	90,180	90,708
Plus: net capital transfers received	-2,364	-2,588	-2,564	-2,372	-2,432
Equals: gross saving and capital transfers	214,700	162,064	157,064	178,320	133,100
Less: non-financial capital acquisitions	271,812	246,920	229,136	229,240	236,492
Fixed capital	271,364	244,240	227,152	230,324	239,128
New assets	259,536	236,692	226,324	226,296	228,748
Existing assets	11,828	7,548	828	4,028	10,380
Inventories	448	2,680	1,984	-1,084	-2,636
Equals: net lending or net borrowing	-57,112	-84,856	-72,072	-50,920	-103,392

- Inventories measure the change (i.e., flow) in the stock of inventories from period to period.
- Net lending represents the funds available to build financial wealth (add assets and/or reduce liabilities) whereas net borrowing implies a reduction in assets and/or increase in liabilities.



Distributions of Household Economic Accounts

Income, Consumption, and Savings



Distributions of Household Economic Accounts

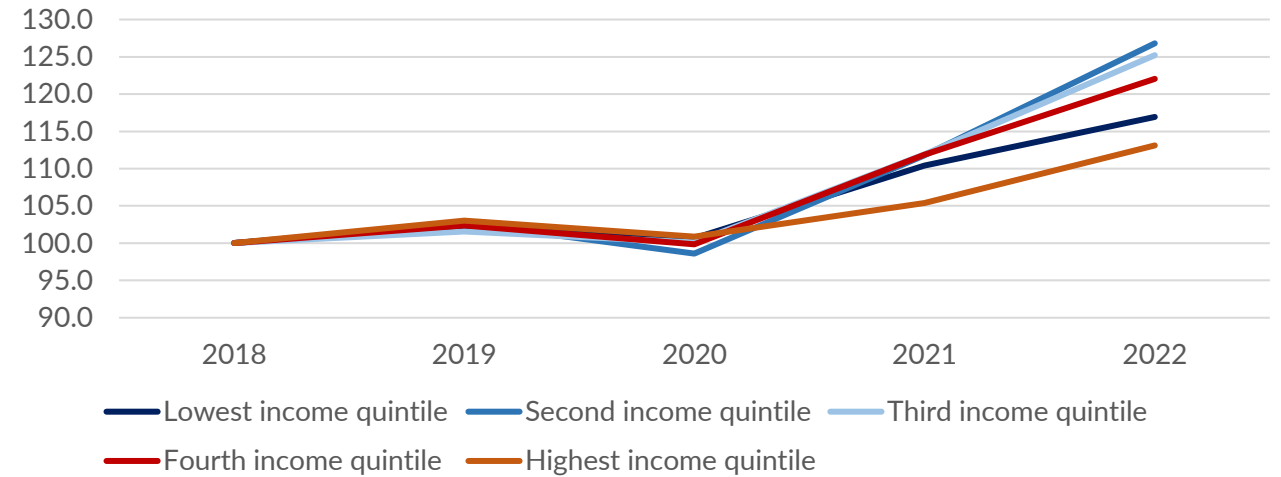
- The Distributions of Household Economic Accounts (DHEA) are part of larger effort to go beyond GDP and measure economic well-being
- Distributions are produced for income, consumption, saving and wealth
 - Not joint distributions – each done with separate microdata sources
 - Available by income quintile, age, household composition, housing tenure, province, main source of income
 - Wealth also done by wealth quintile
- Compiled by DHEA analysts, in collaboration with the Social Analysis and Modelling Division as well as survey analysts and methodologists
- Prior to 2020 produced on annual frequency
- As of Q1 2020 produced on quarterly frequency
- Currently released approximately 3 months after the reference period

Income gap narrows over the pandemic

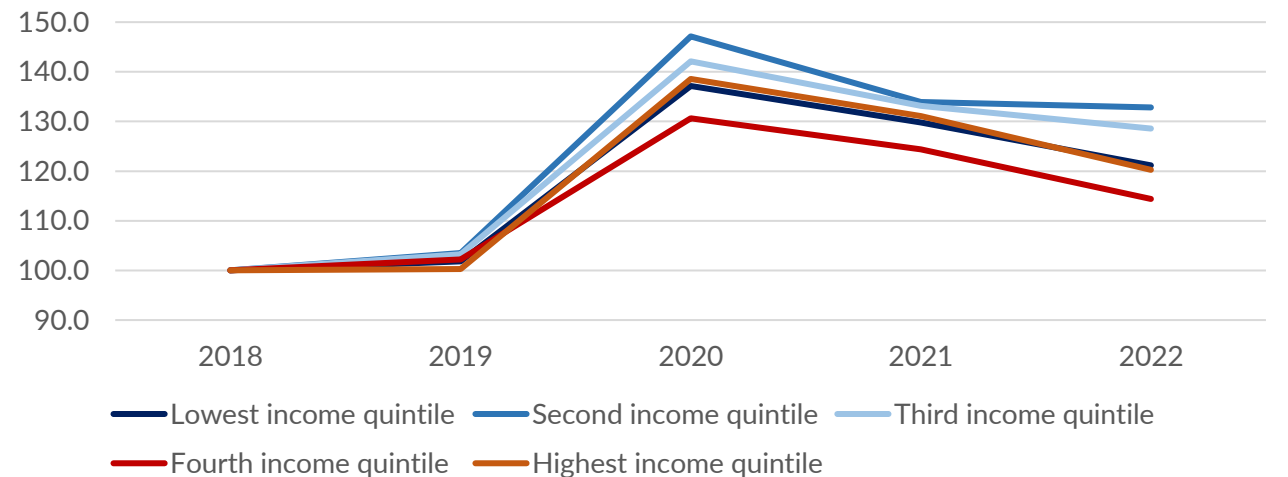
Share of total household disposable income	Average (2010 to 2019)			
	2020	2021	2022	%
Lowest income quintile	6.3	7.4	7.1	7.1
Second income quintile	12.6	13.5	13.3	13.5
Third income quintile	17.2	17.5	17.6	17.4
Fourth income quintile	23.3	23.6	23	23
Highest income quintile	40.7	38.1	39.1	39
Gap between top two and bottom two income quintiles	45.1	40.8	41.7	41.4

- The second and the third income quintiles saw largest increases in wages and transfers
- Wage increase partially driven by hours worked (many people in essential service areas)
- Lowest income quintile comprised of many household that do not have wages but instead rely on pension income – not eligible for many of Covid support benefits (i.e., CERB)

Change in wages and salaries (2018=100)

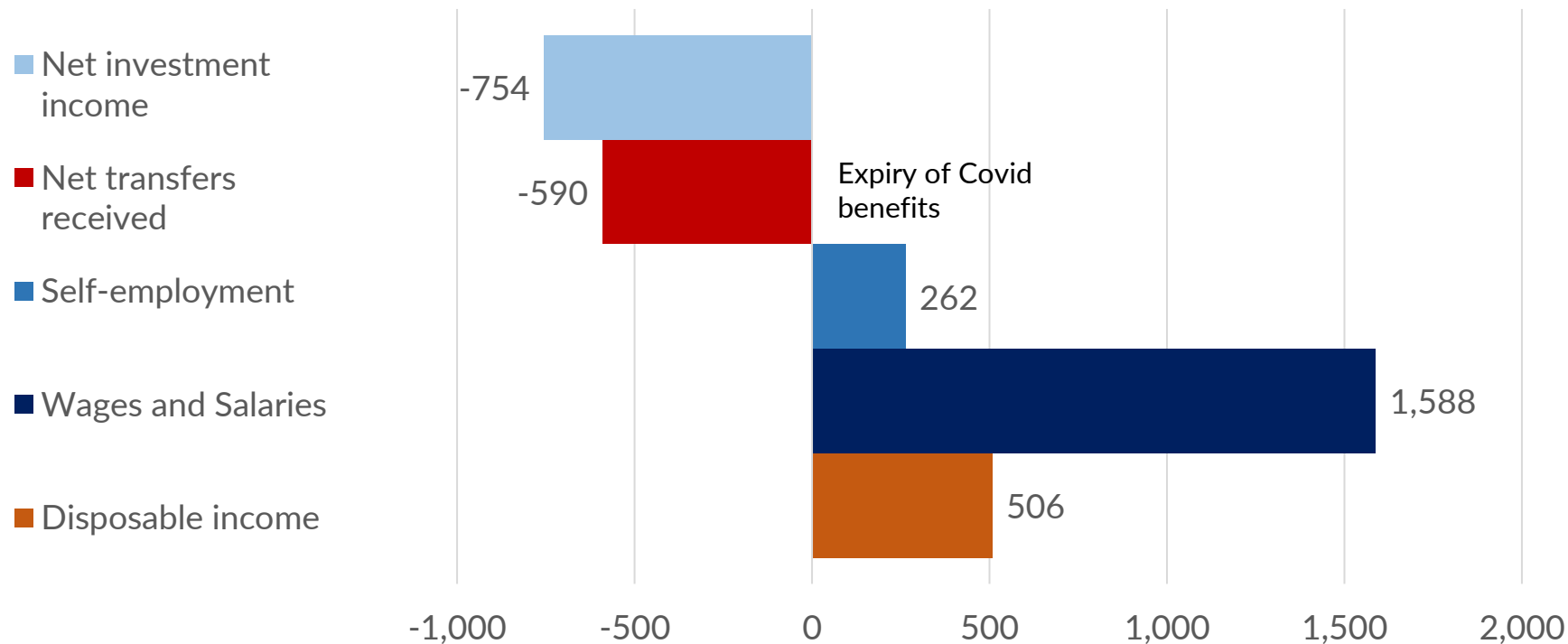


Change in current transfers received (2018=100)



Lowest income earners affected by expiry of pandemic benefits and higher borrowing costs

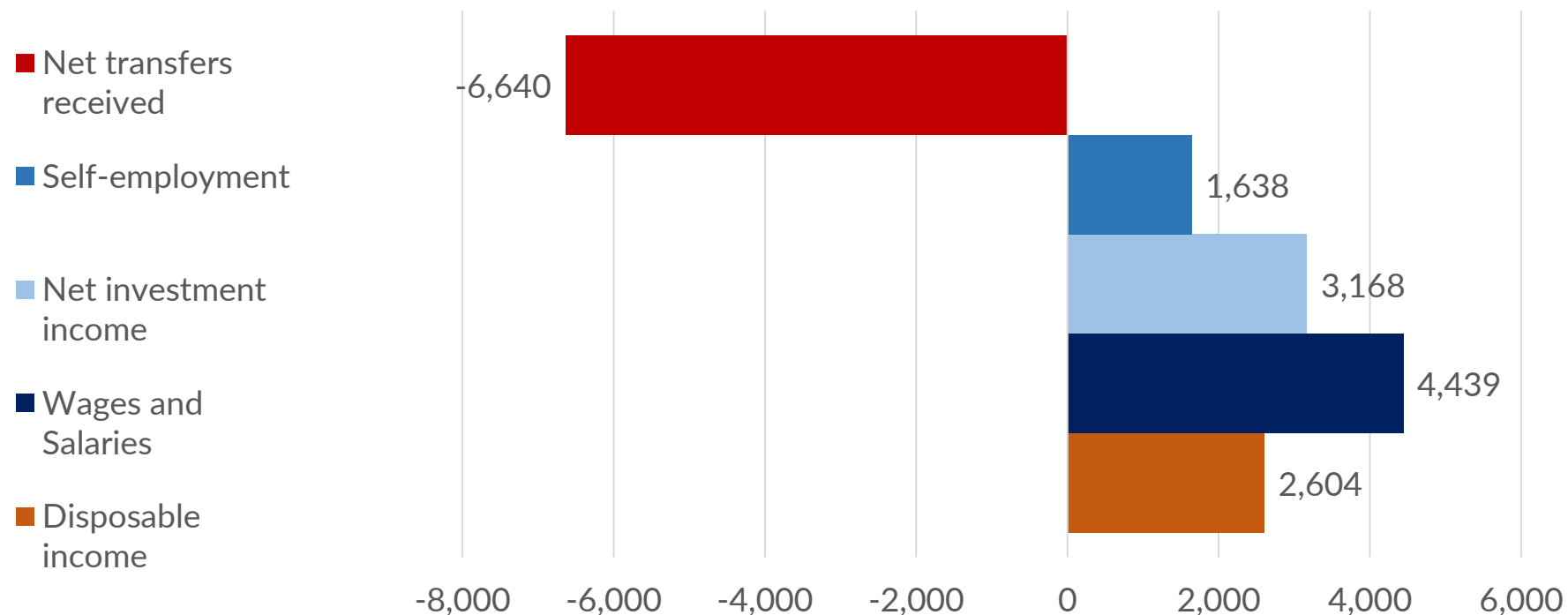
Change in average disposable income for lowest income quintile, including contribution of each income component, 2022 relative to 2021



- Strong growth in wages
- Income growth limited by expiry of pandemic benefits
- Net investment income drop mainly due to higher interest payments on debt

Highest income earners gain from employment income and investment earnings

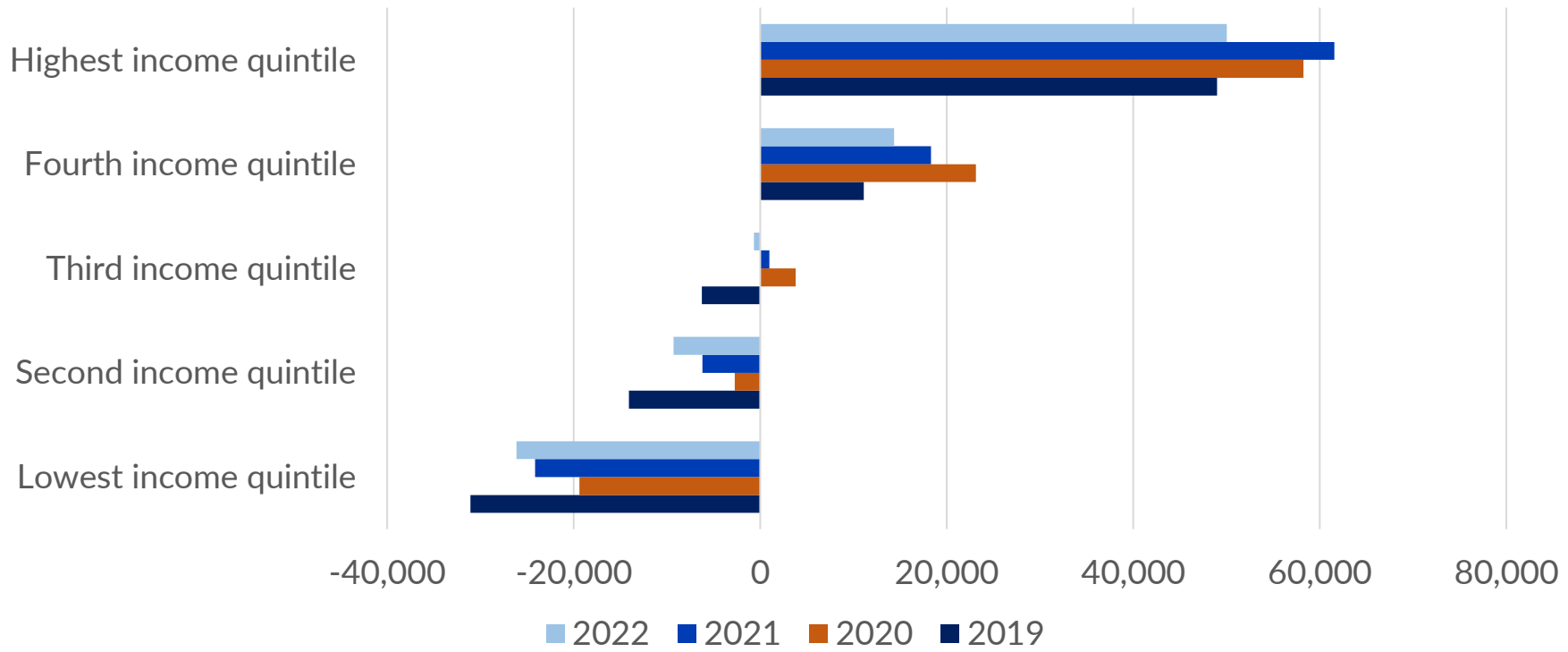
Change in average disposable income for highest income quintile, including contribution of each income component, 2022 relative to 2021



- Highest income earners increased income at a slower than average pace (+1.4%)
- Higher wages and salaries (+2.4%), self-employment (+6.1%) and investment (+9.0%)
- Lower transfers (-12.8%), mainly from E.I.
- Higher taxes paid (+3.4%)

Net saving for lower- and middle-income affected most by cost-of-living increases

Change in average household net saving by income quintile



- HFCE stronger than income as economy re-opened (esp. food & accommodation)
- Net saving declined for each quintile
- Middle income switches back to net dis-saving
- Still better off than before pandemic



Financial and Wealth Accounts (FWA)



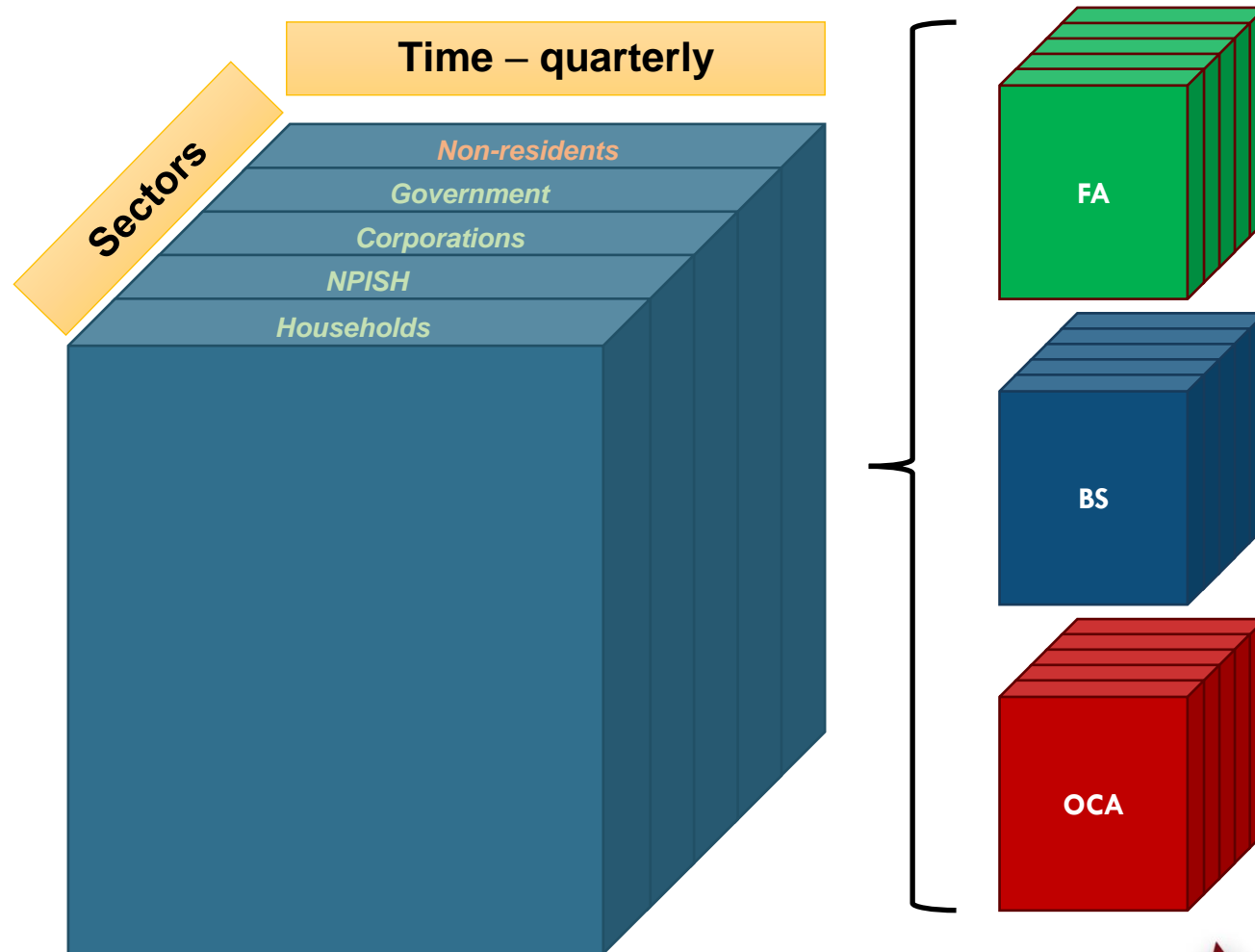
Financial and Wealth Accounts (FWA)

- The FWA records the financial flows and other economic flows that either increase a sector's wealth or decrease a sector's wealth, as well as the stock of assets and liabilities at a point in time.
- The financial and wealth accounts can be divided into the accumulation accounts and the balance sheet.
- The accounts are a multi-dimensional presentation by categories/instruments, institutional sector, time, and account type
- Domestic sectors contain resident institutional units comprised of persons or groups of persons (households) or legal or social entities (corporations, government)

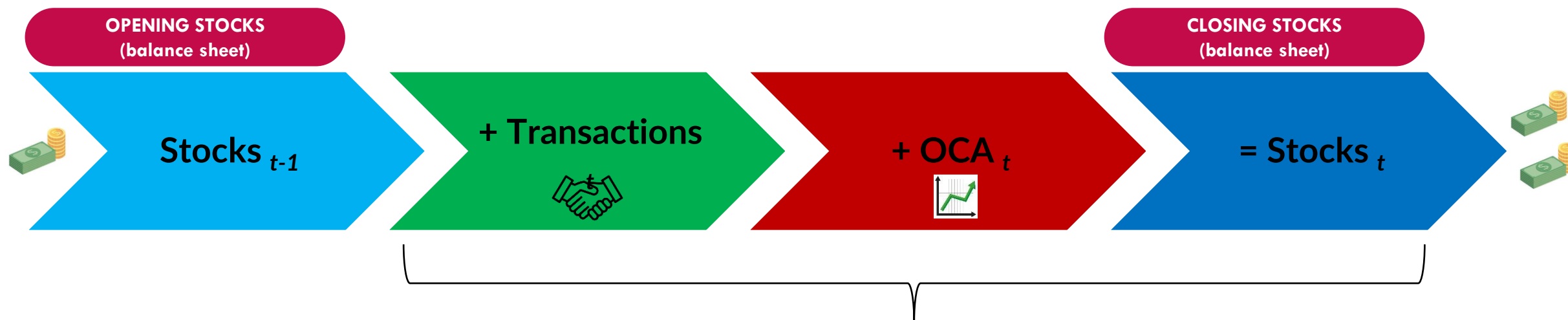
(S11) Non-financial Corporations

(S12) Financial Corporations

- (S121) Central bank
- (S122) Deposit-taking corporations, except the central bank
- (S123) Money market funds
- (S124) Non-MMF investment funds
- (S125) Other financial intermediaries, except insurance corporations and pension funds
- (S126) Financial auxiliaries
- (S127) Captive financial institutions and money lenders
- (S128) Insurance corporations
 - (S1281) Life insurance corporations
 - (S1282) Property and casualty insurance companies
- (S129) Pension funds
 - (S1291) Defined benefit funds
 - (S1292) Defined contribution funds



FWA – Relationship between accounts



Transactions + OCA occurring in time t (reference quarter) to build new stock position

Stocks = Balance Sheet (BS)

Transactions = Financial Account (FA)

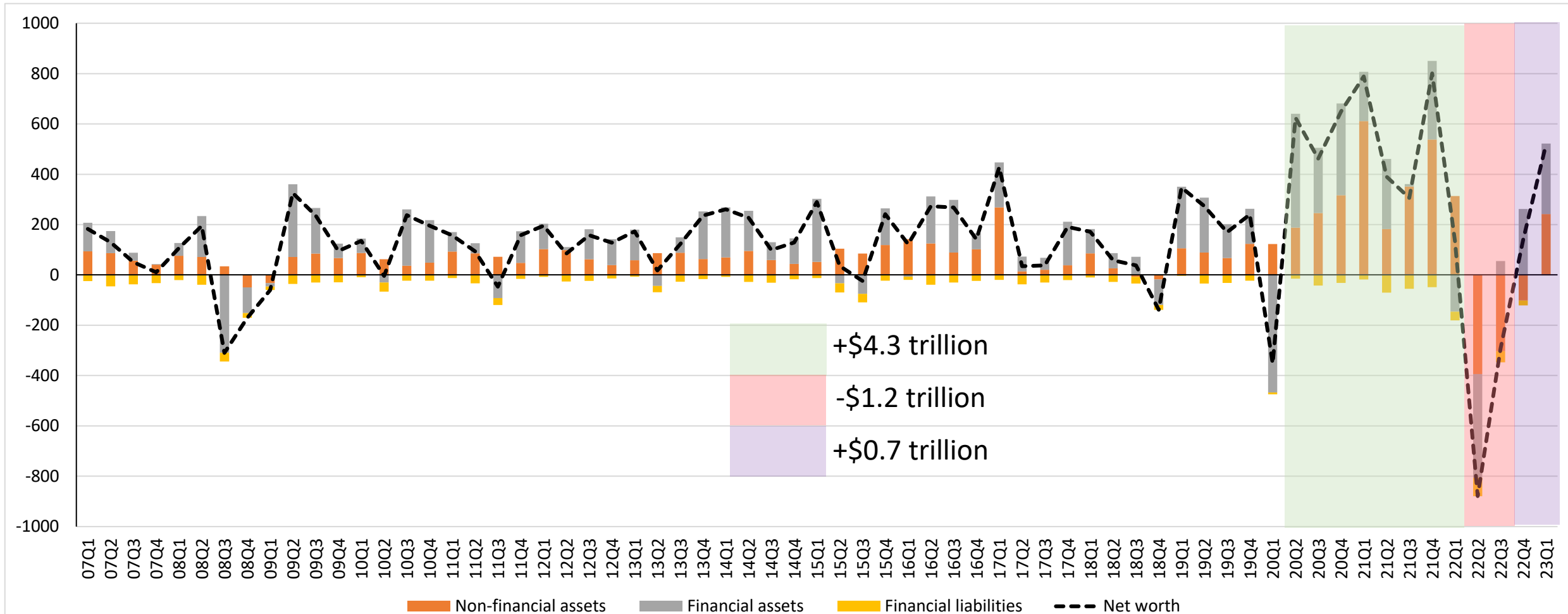
OCA = Other Change in Assets Accounts (OCAA)

FWA – Relationship between accounts (continued)

Financial Flows Account (FFA; i.e., financial account)	Other changes in assets account (OCAA)	National Balance Sheet Account (NBSA)
<ul style="list-style-type: none"> Follows the capital account in the sequence of national accounts The link between these two sets of accounts is the concept of net lending/borrowing <ul style="list-style-type: none"> This provides the link between the national accounts (flows of income and expenditure) and the financial side of the economy (flows of funds) The financial account provide a measure of net lending/net borrowing from the point of view of how transactions are financed (i.e., net financial investment) The financial account records transactions in financial assets and liabilities while the capital account records transactions in non-financial assets. The sum of net lending/net borrowing across all sectors must equal zero. This means, for example, that for every debtor there must be a corresponding creditor. Changes in financial assets = changes in liabilities (for each category/instrument) Transactions in financial assets = transactions in liabilities (across all sectors) 	<ul style="list-style-type: none"> This set of accounts records changes in the values of assets and liabilities, between opening and closing balance sheets, that result from flows that are not financial transactions, therefore they are referred to as other flows. Closes the sequence of accounts from opening to closing balance sheets The other changes in assets is comprised of two distinct accounts: <ul style="list-style-type: none"> The revaluation account, which measures changes in the value of assets/liabilities resulting from price dynamics The other changes in volume account, which measures valuation changes resulting from quality and quantity adjustments rather than changes in prices 	<ul style="list-style-type: none"> The BS provide the national accounts with a stock dimension whereas the current and capital account and the financial account and OCA measure flows during a period the balance sheet shows the outstanding amount (level/stock) of assets and liabilities at a given point in time (i.e., end of quarter) The balance sheet includes a valuation dimension whereby stocks are measured at market values This ties back to the revaluation account, which accounts for the changes in value due to price effects. Financial assets, by category = liabilities, by category for the economy as a whole Assets less liabilities = net worth for each sector

Household net worth

- Household sector net worth rose \$482.5 billion or 3.2% from the fourth quarter to reach \$15,667.5 billion in the first quarter.



Economic conditions

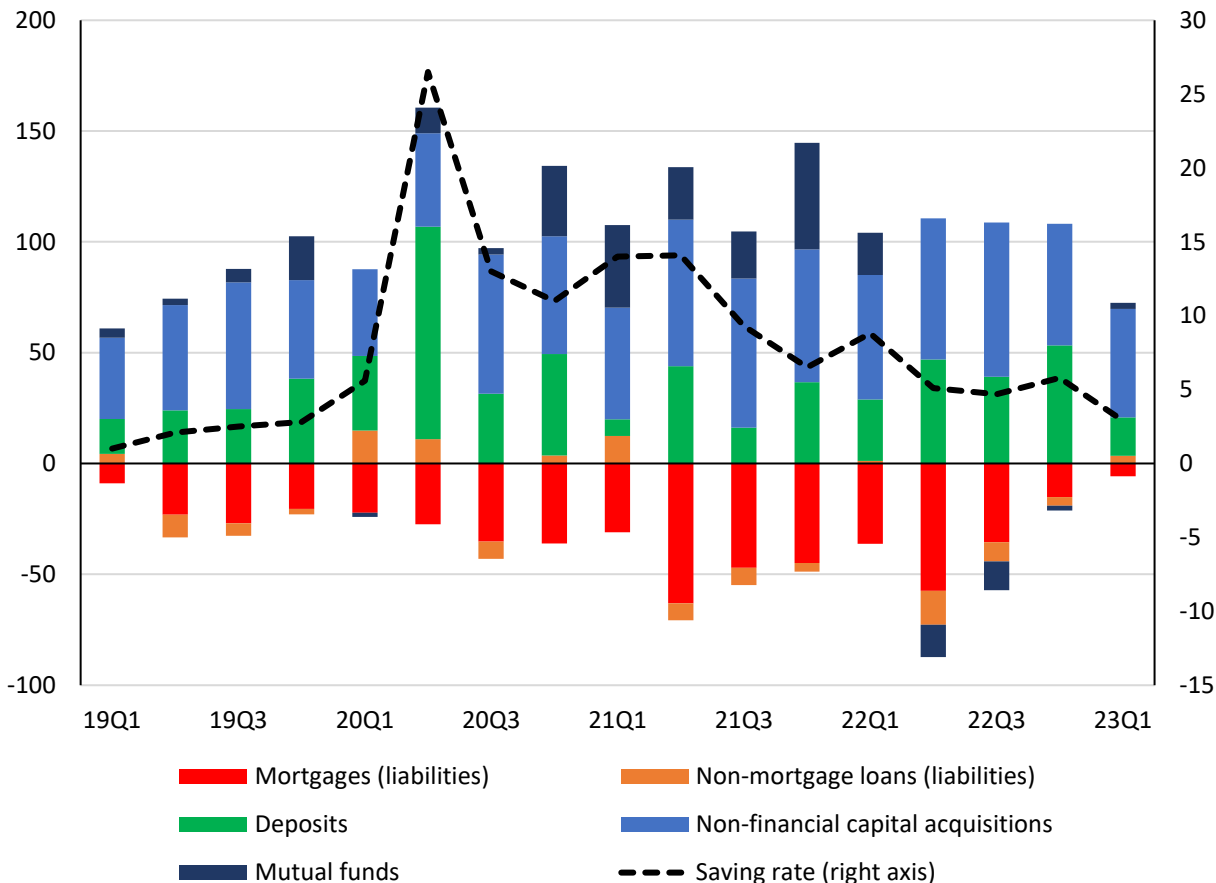
Market indicator	Great recession 2008Q2 to 2009Q1	Christmas massacre 2018Q4	COVID-19 start 2020Q1	2019Q4 to 2022Q1	2022 great correction 2022Q2 to 2022Q3	2023Q1
S&P 500	-37.7	-14.0	-20.0	40.2	-20.9	7.0
TSX	-39.7	-10.9	-21.6	28.3	-15.7	3.7
MLS Home Price Index	-8.9	-2.4	4.5	61.2	-14.0	2.3
Corporate bond index	-1.1	-0.1	-5.7	-7.2	-6.2	1.9
Government bond index	3.2	1.5	2.5	-7.9	-6.3	2.3

	Great recession 2008Q2 to 2009Q1		COVID-19 start 2020Q1		2019Q4 to 2022Q1		2022 great correction 2022Q2 to 2022Q3		2023Q1	
Change in household assets	Revaluations	% Stock change	Revaluations	% Stock change	Revaluations	% Stock change	Revaluations	% Stock change	Revaluations	% Stock change
Total financial assets	-466,155	-10.4%	-471,270	-5.8%	870,696	15.7%	-413,601	-3.8%	296,077	3.0%
Listed shares	-228,489	-56.2%	-135,295	-27.6%	105,298	23.4%	-85,138	-14.1%	35,947	7.1%
Unlisted shares	30,837	6.2%	-50,226	-5.5%	289,649	16.3%	14,590	1.5%	41,891	2.8%
Foreign investments: equity	-11,918	-26.0%	-23,502	-14.4%	28,842	20.4%	-24,273	-10.2%	14,719	8.5%
Mutual funds shares	-117,724	-18.1%	-179,366	-11.6%	246,028	28.1%	-194,727	-11.1%	71,936	4.0%
Life insurance and pensions	-184,175	-10.8%	-103,992	-3.8%	101,926	5.1%	-145,988	-4.6%	89,901	3.1%
Debt securities	23236	5.8%	1,798	2.8%	-11,309	-7.8%	-10,969	-9.4%	3,257	2.9%
Residential property	-52,025	-1.8%	132,518	2.3%	2,723,226	47.7%	-746,969	-8.9%	243,637	3.2%

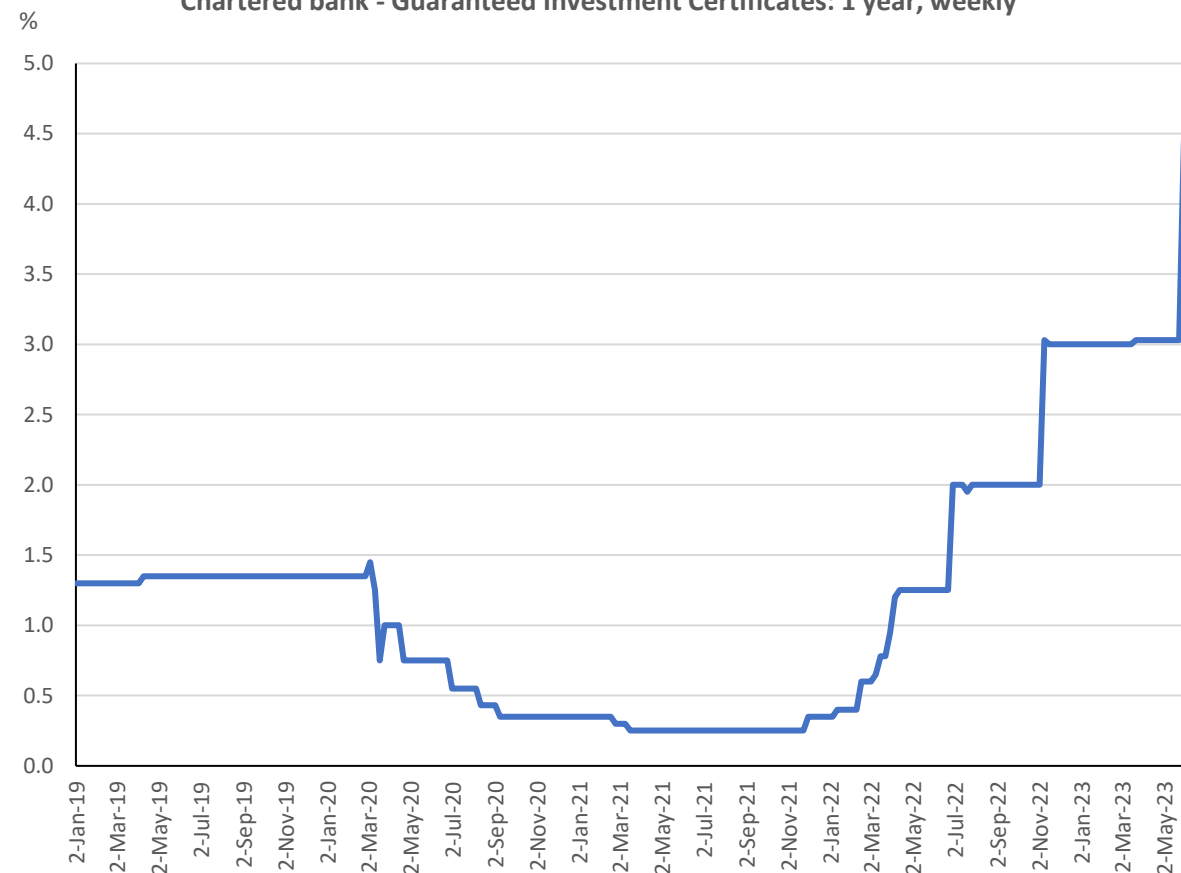
Household transactions in assets and liabilities

- Households added \$17 billion in deposits, the smallest advance since the third quarter of 2021.
- Households continued to place funds in higher interest fixed-term deposits

Select household flows and saving rate

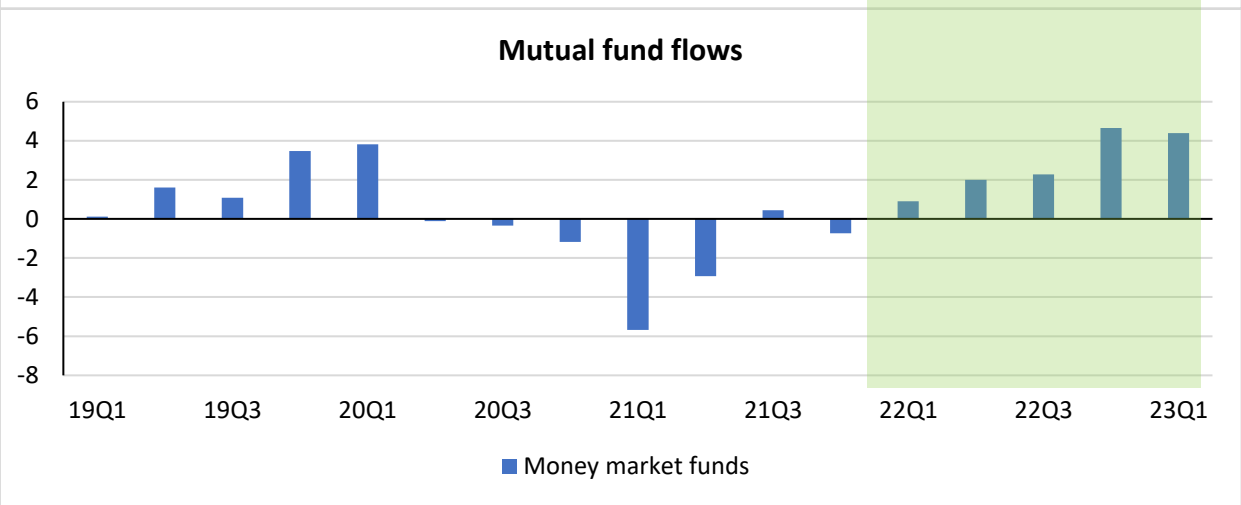
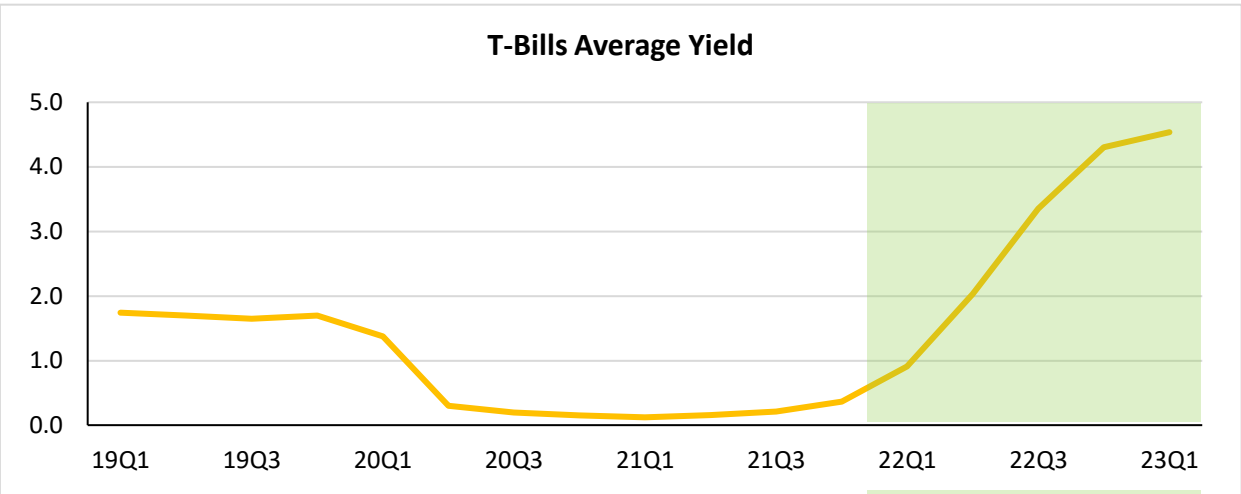
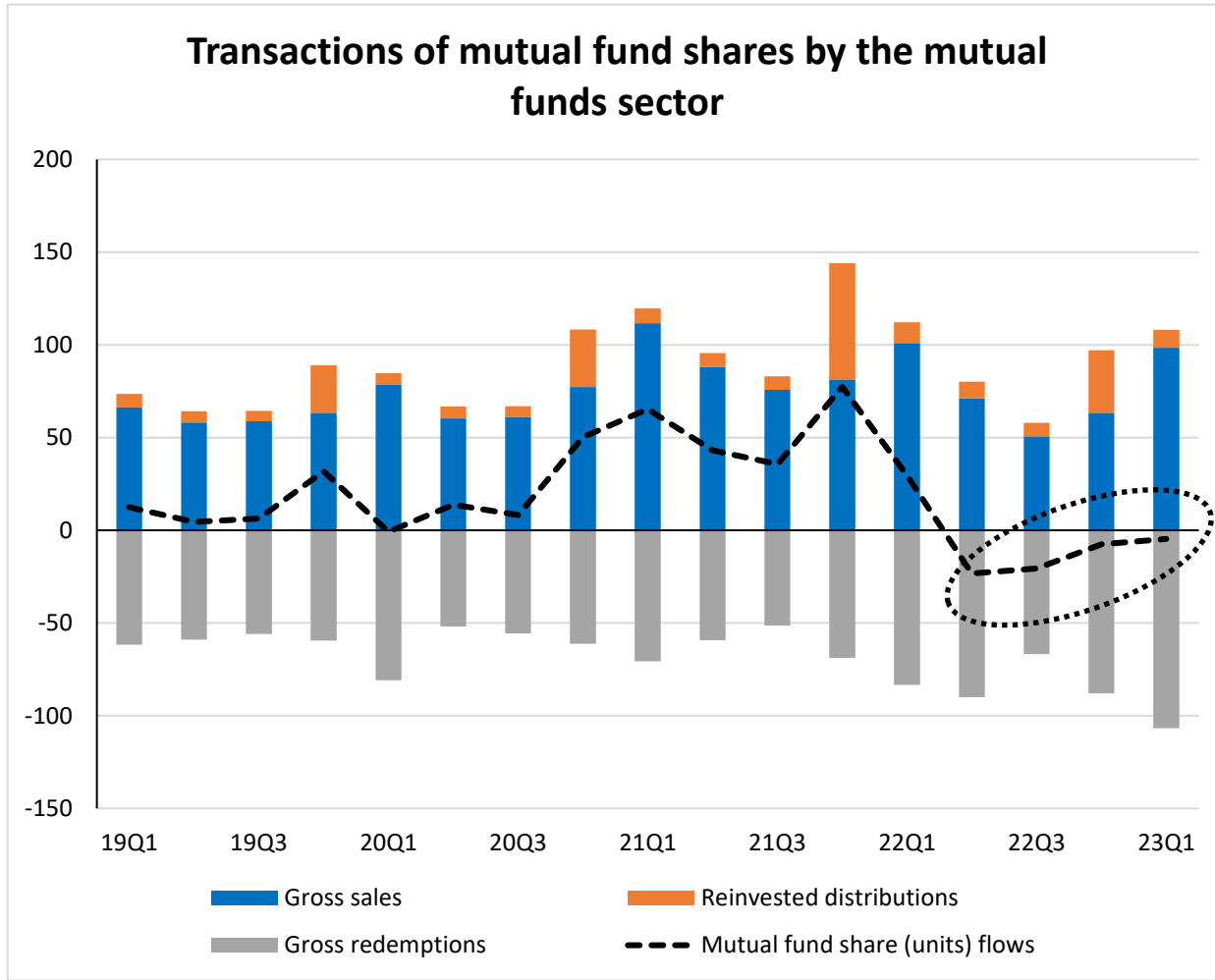


Chartered bank - Guaranteed Investment Certificates: 1 year, weekly



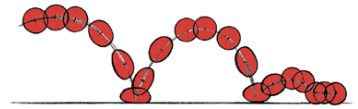
Mutual funds sector

- Money market mutual funds saw a fifth consecutive quarter of net inflows as investors moved towards short term yield-generating assets.

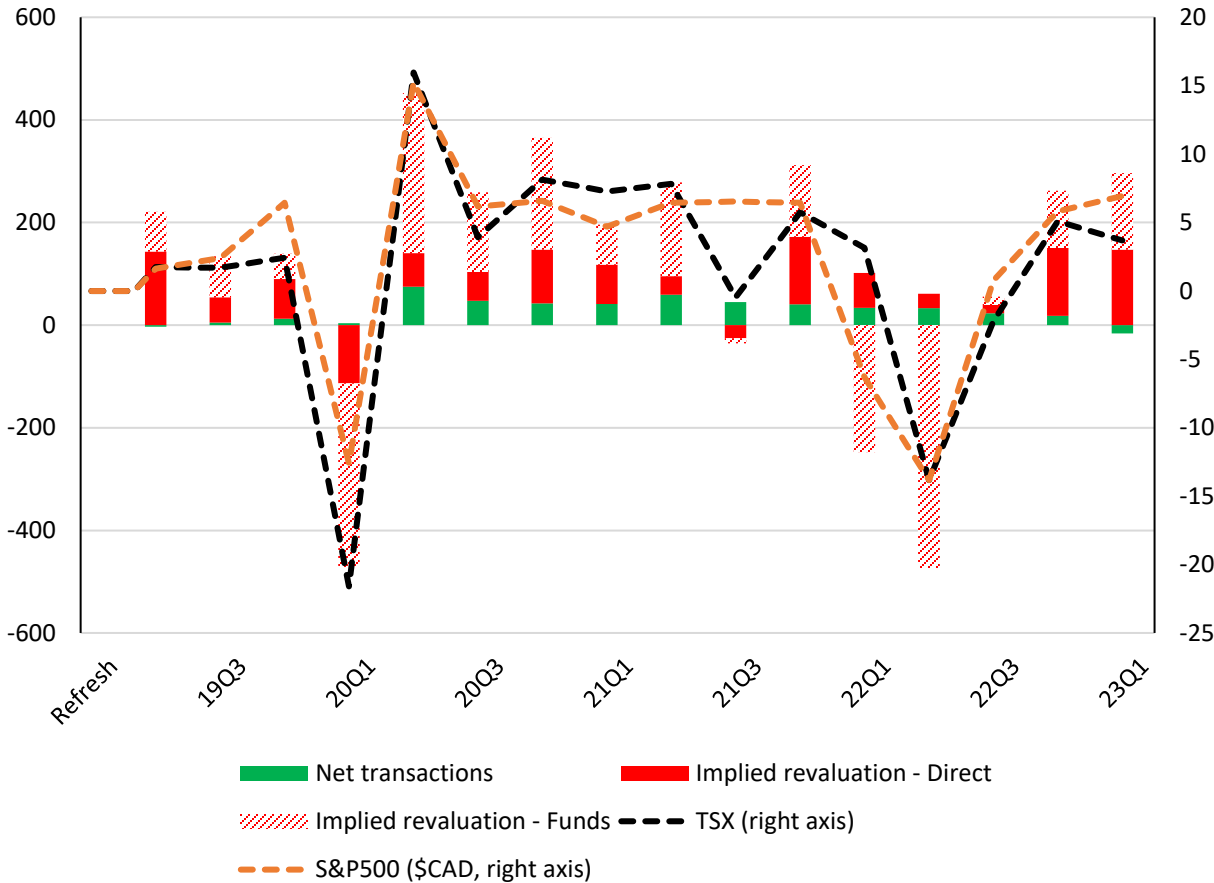


Household financial assets

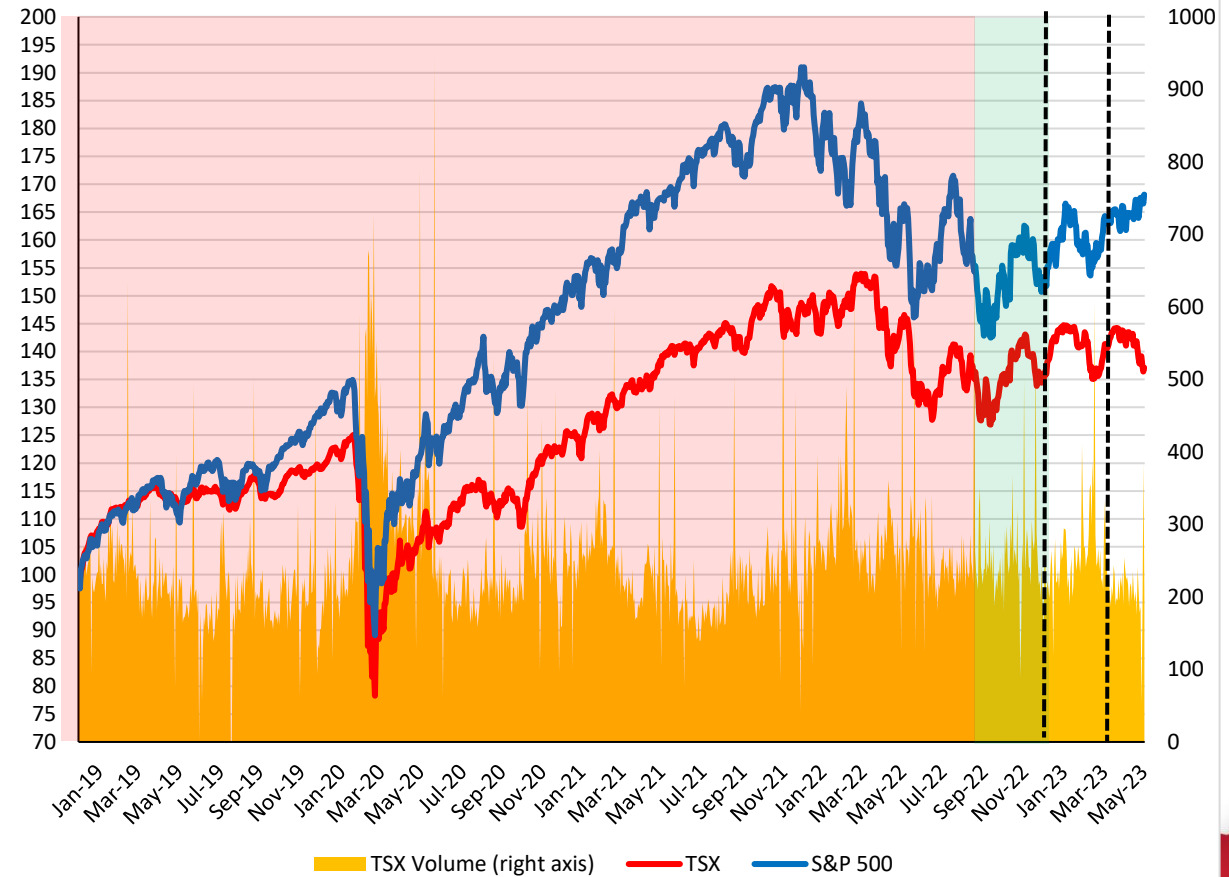
- The value of households' total financial assets rose 2.6% (+\$242.7 billion) in the first quarter



Household financial assets



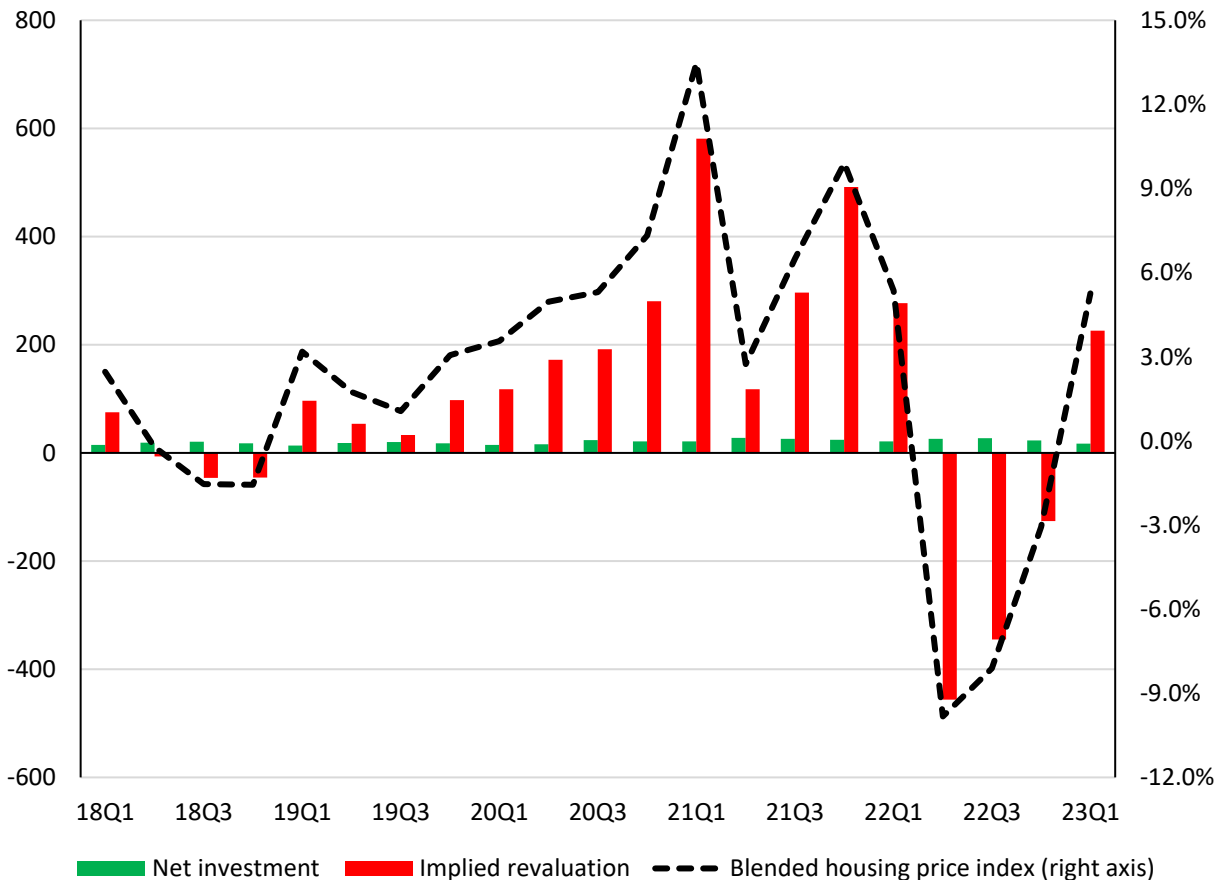
Indexed S&P 500 vs. TSX



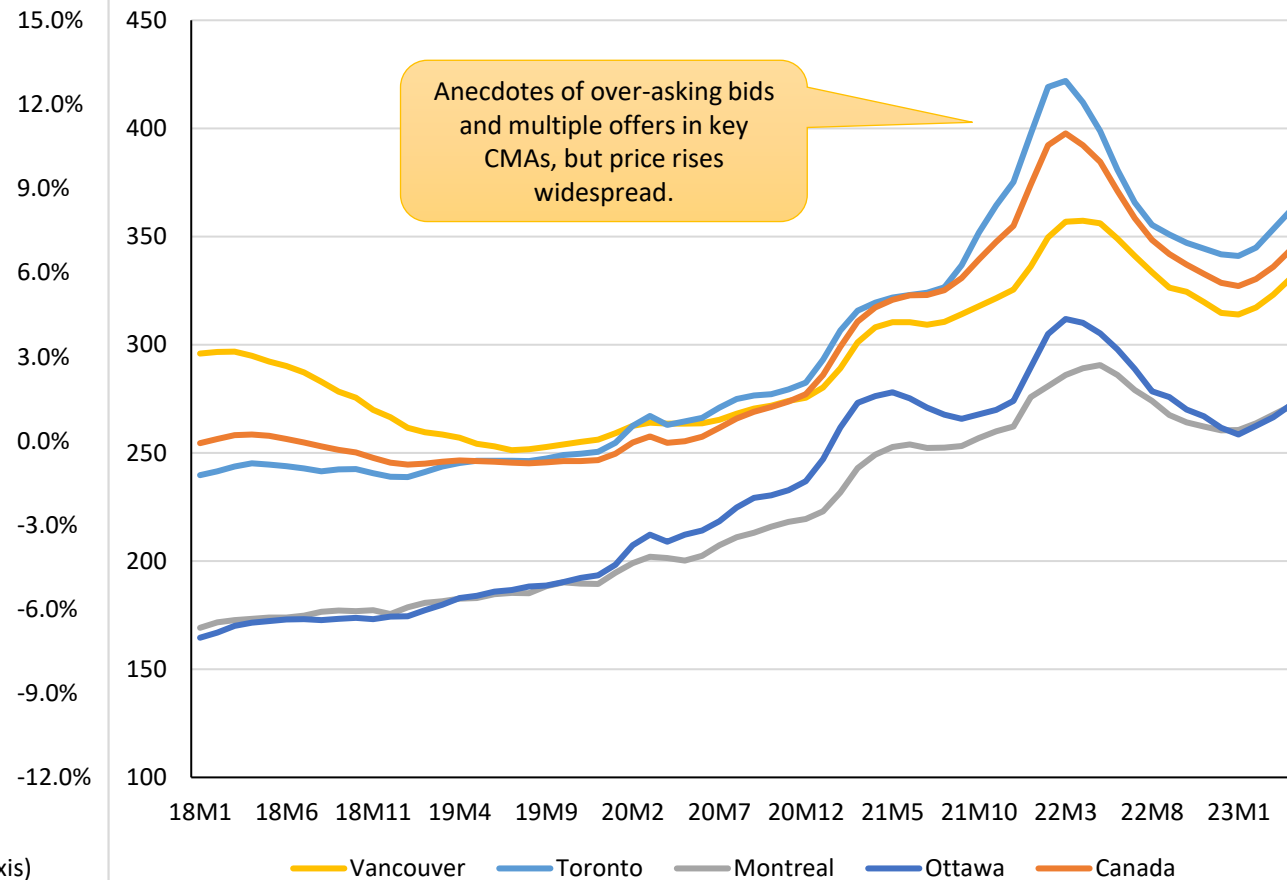
Household non-financial assets

- Household residential real estate rebounded, up 3.2% (\$243.6 billion), following three consecutive declines

Non-financial assets, real estate

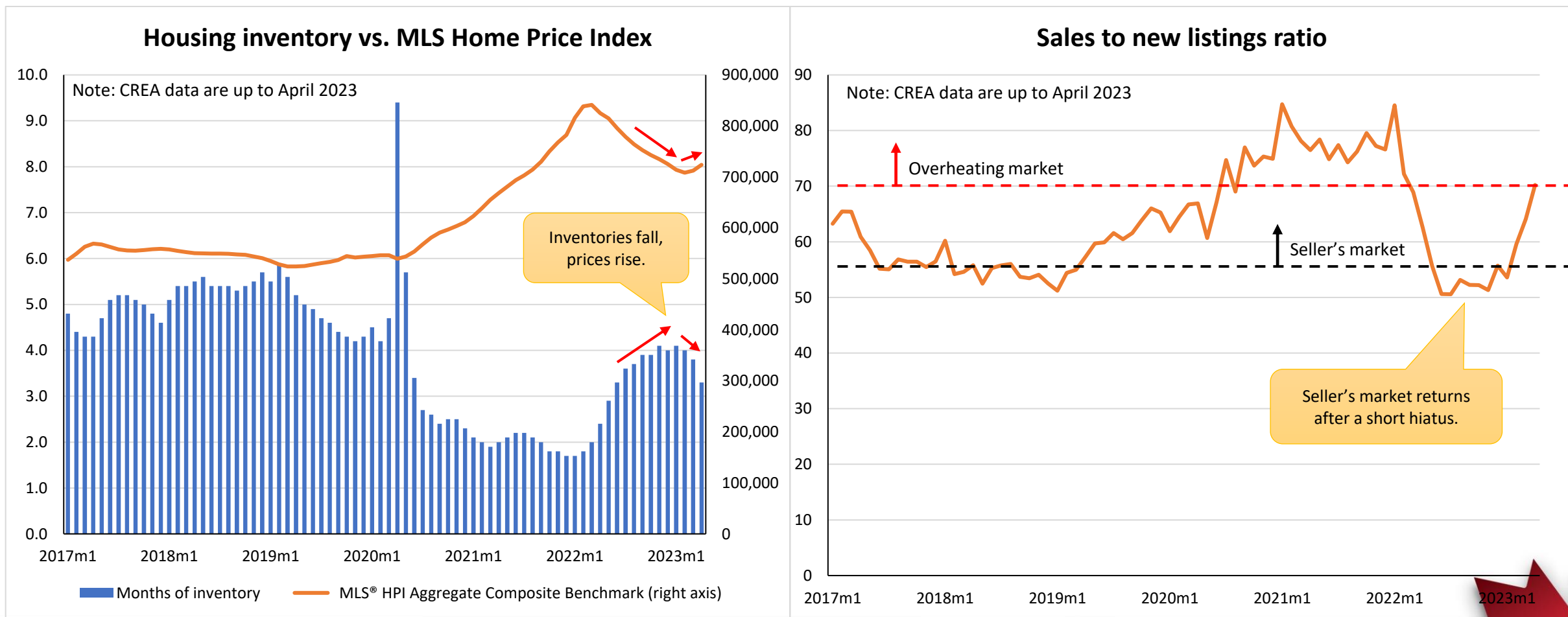


MLS Home Price Index



Housing market conditions

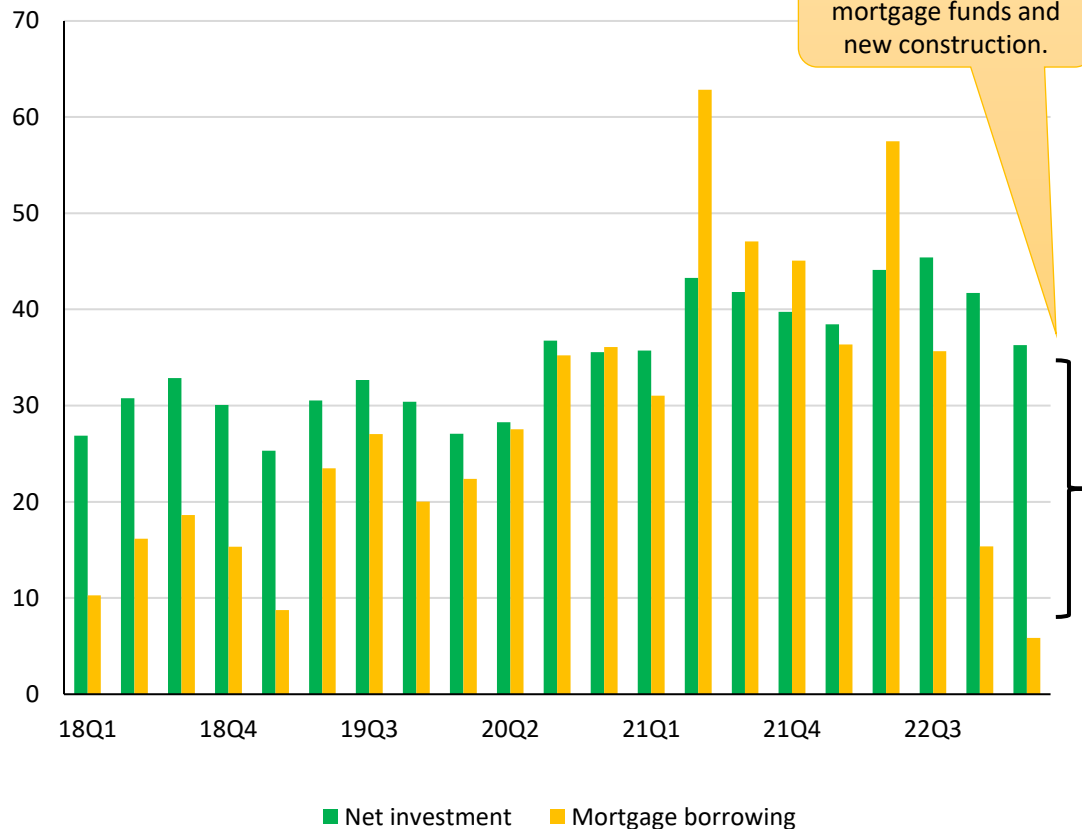
- Advanced estimates on housing indicators suggest a resurgence in market activity, with decreasing housing inventory and stabilizing prices leading to overall stronger market



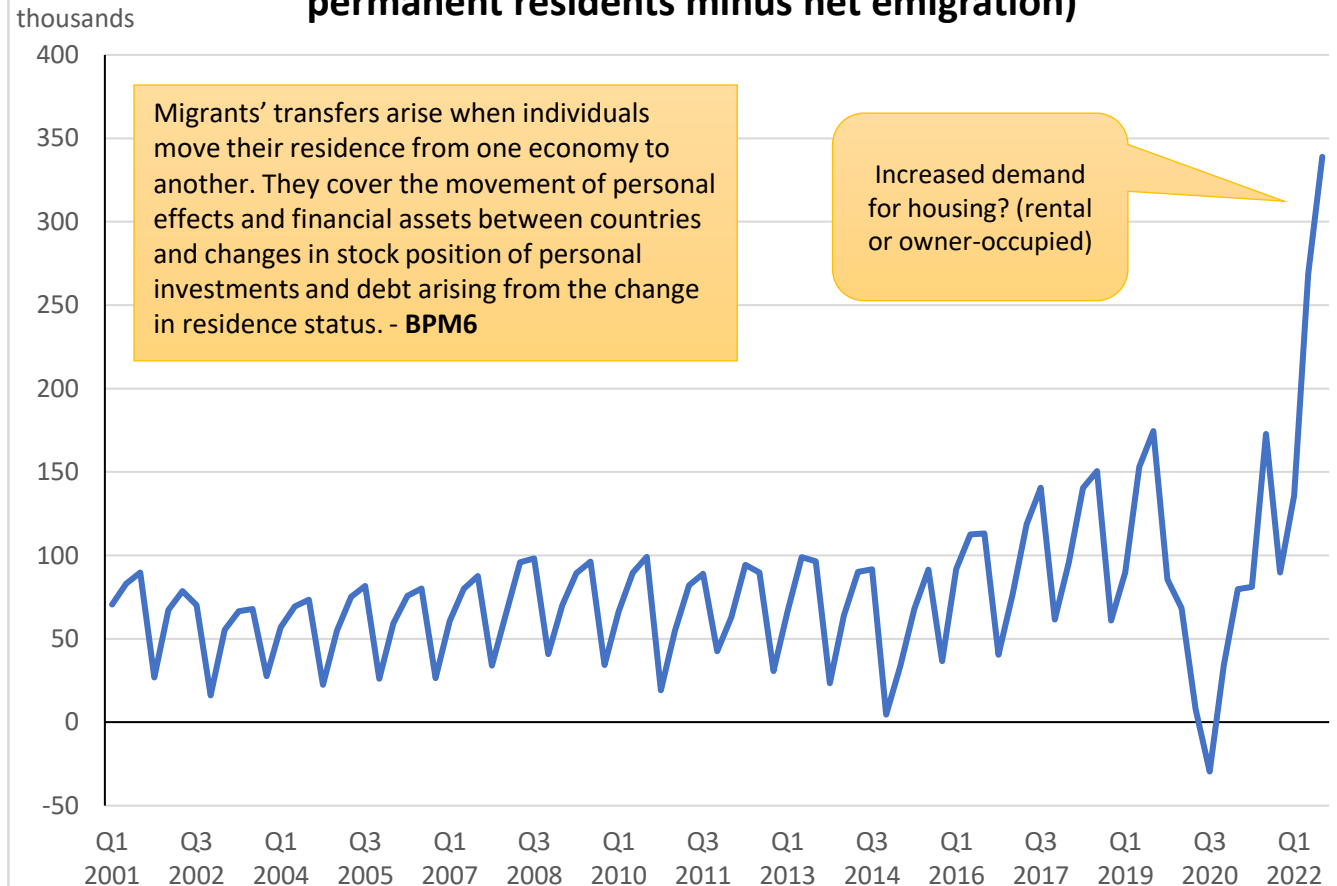
Household non-financial assets

- Decline in real estate valuations and activity continued as the housing market continued to grapple with higher interest rates

Net investment and mortgage borrowing, residential real estate



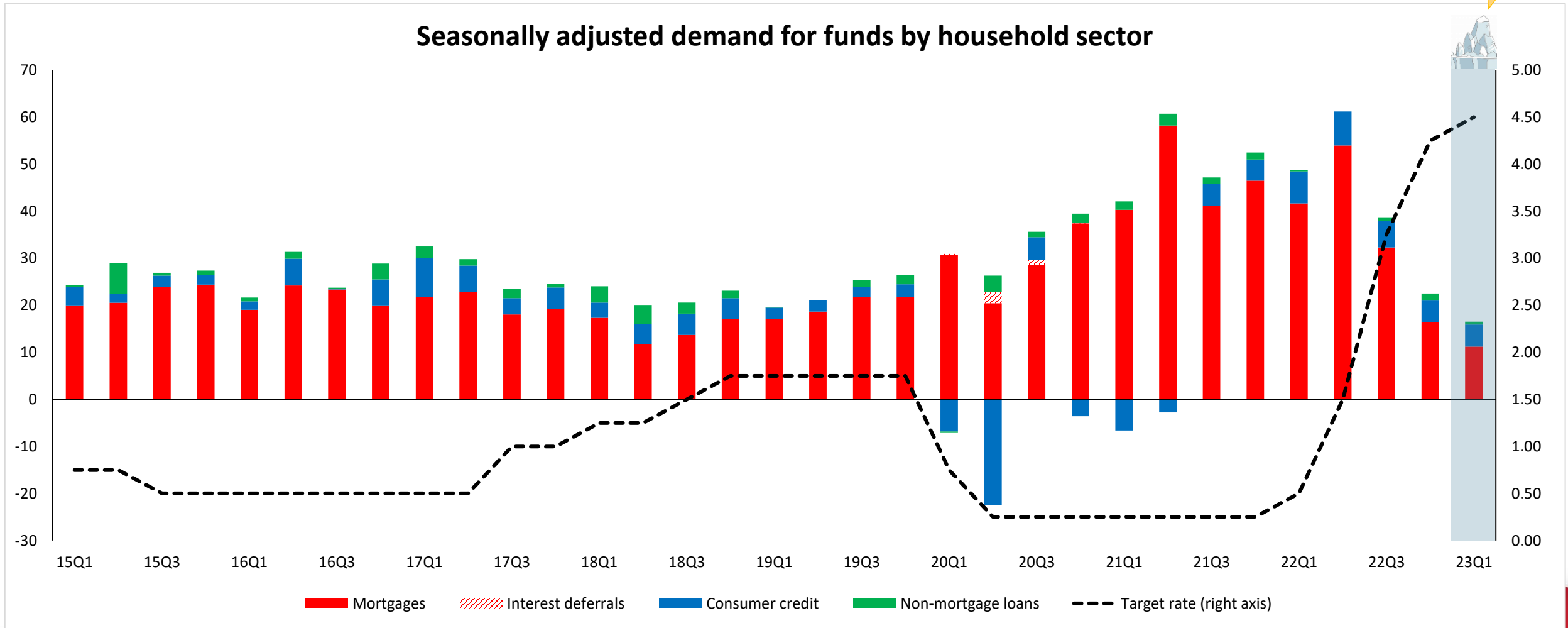
International migratory increase (immigrants plus net non-permanent residents minus net emigration)



Household sector borrowing

- On a seasonally adjusted basis, the pace of credit market borrowing continued to decelerate as households demanded \$16.5 billion of funds in the first quarter.

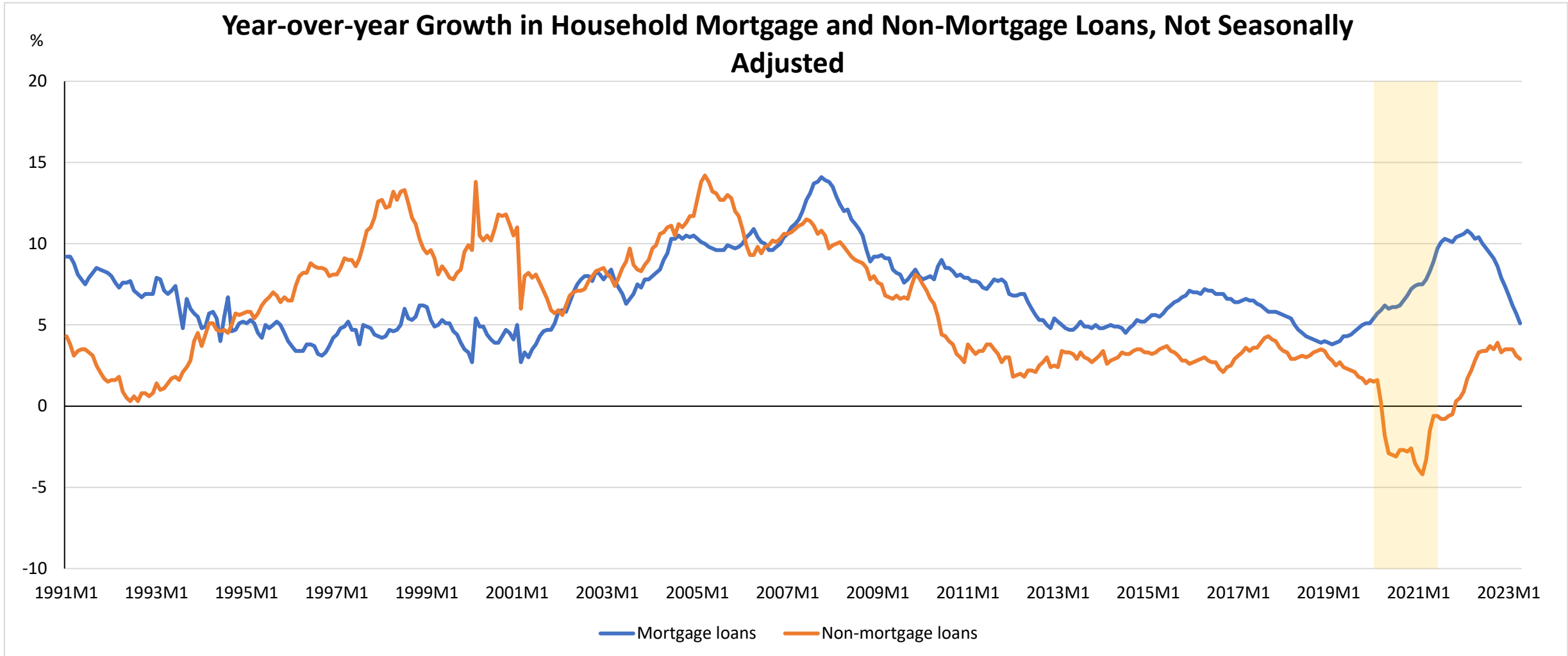
Lowest quarter of mortgage borrowing since 2003.



Monthly credit aggregates – household credit liabilities

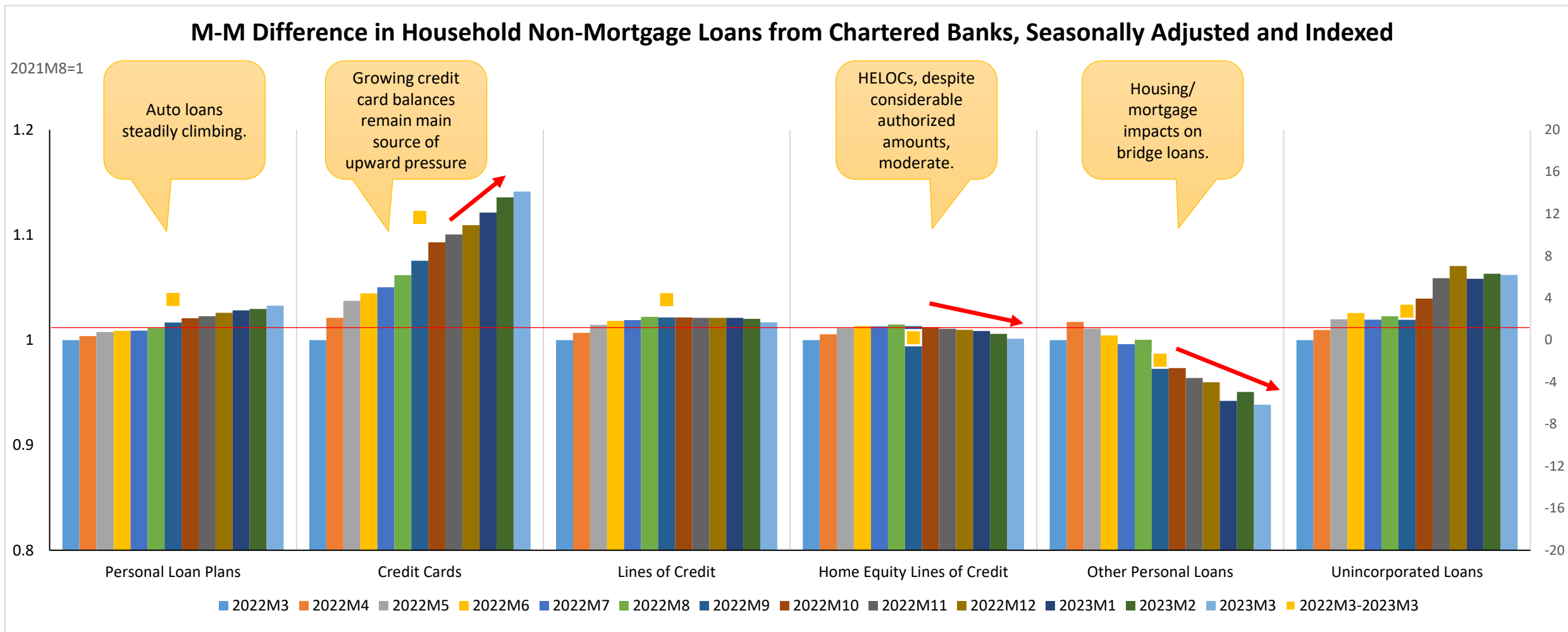
- Household Credit, year-over-year comparisons by type of loan

Year-over-year Growth in Household Mortgage and Non-Mortgage Loans, Not Seasonally Adjusted



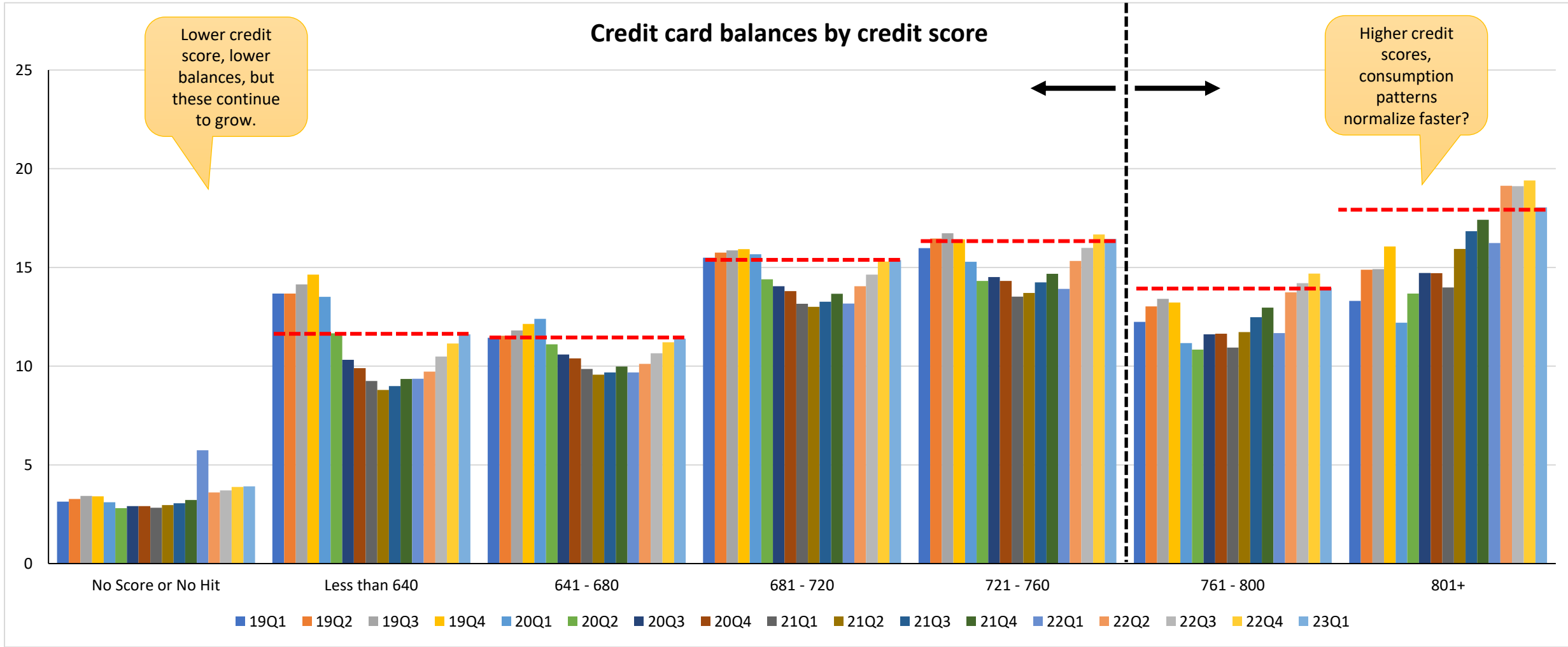
Monthly credit aggregates – household debt by product

- Credit cards recorded a continued increase in activity in the first quarter of 2023



Credit card balances by credit score

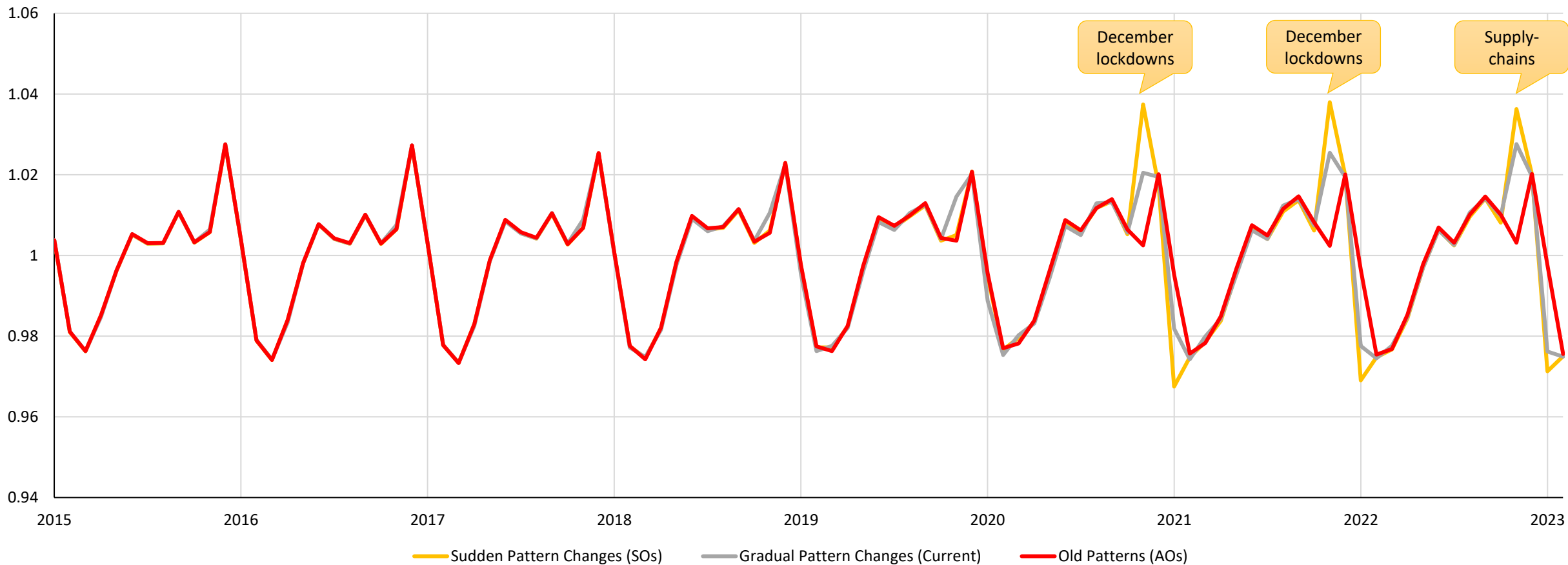
- Consumers with higher credit scores record largest growth in balances; reports of younger Canadians (under 35 years old) adding to credit card balances fastest



Seasonal patterns for credit card borrowing

- Seasonally adjusted data meant to provide leading indicator, but many outliers in the last three years
- Consumers permanently changing behaviour regarding credit card borrowing?

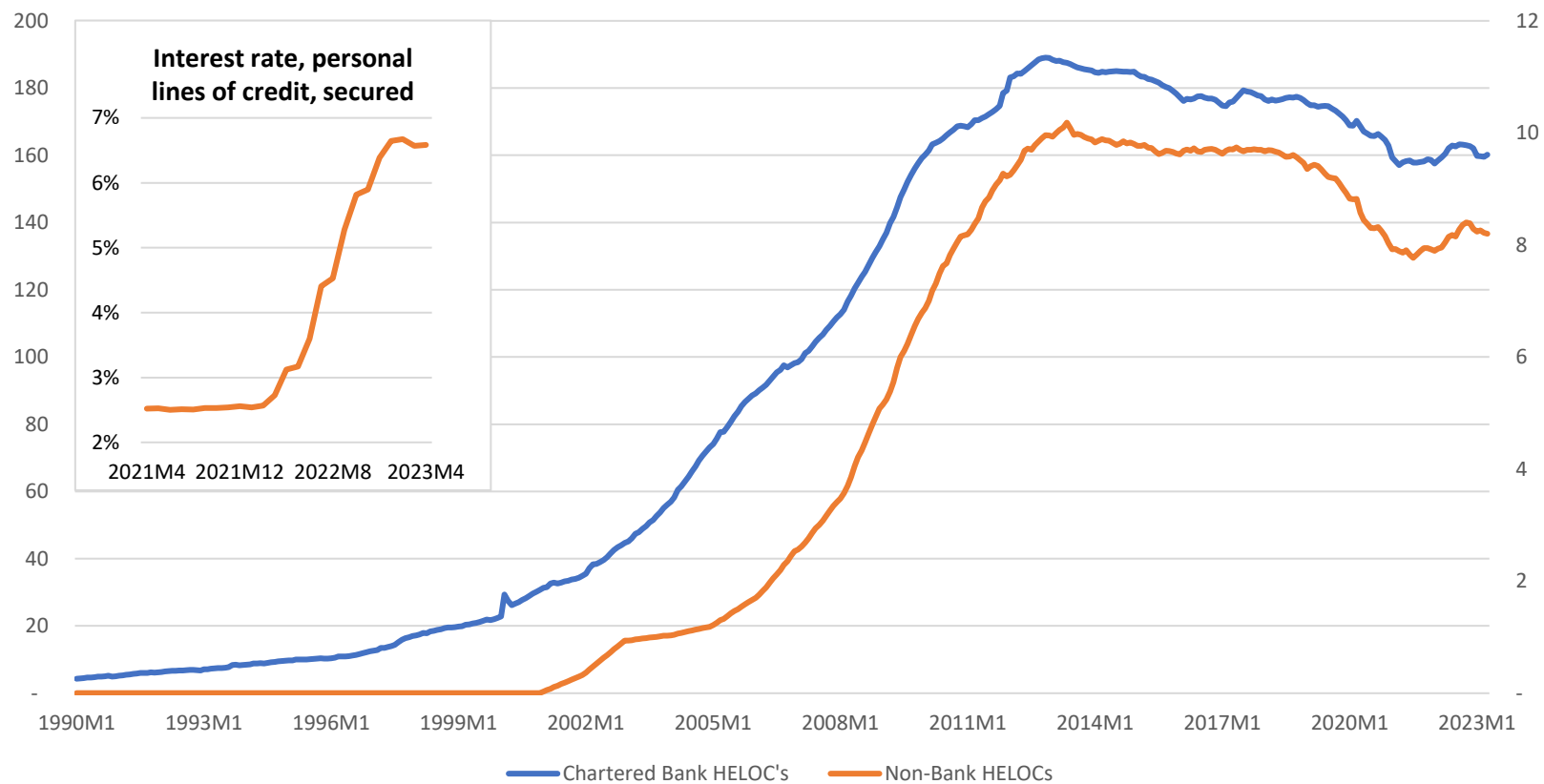
Credit card balances with chartered banks, households — Seasonal Patterns (Factors)



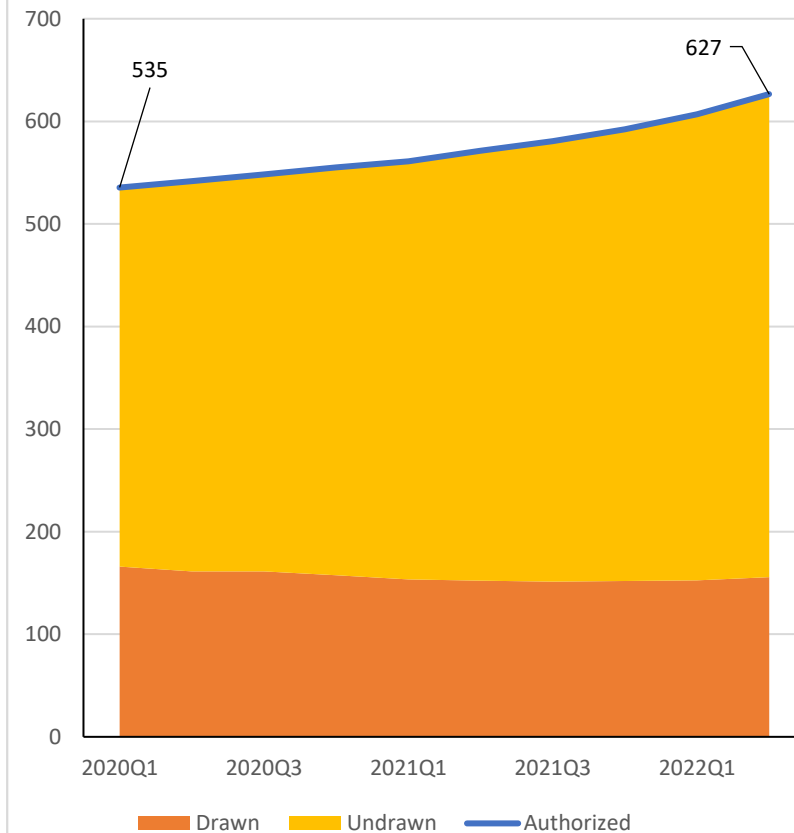
Home equity lines of credit

- HELOC balances down from their 2012 high, but authorizations grew with the record mortgage lending of the recent past.

HELOCs – Chartered Banks vs Non-Banks

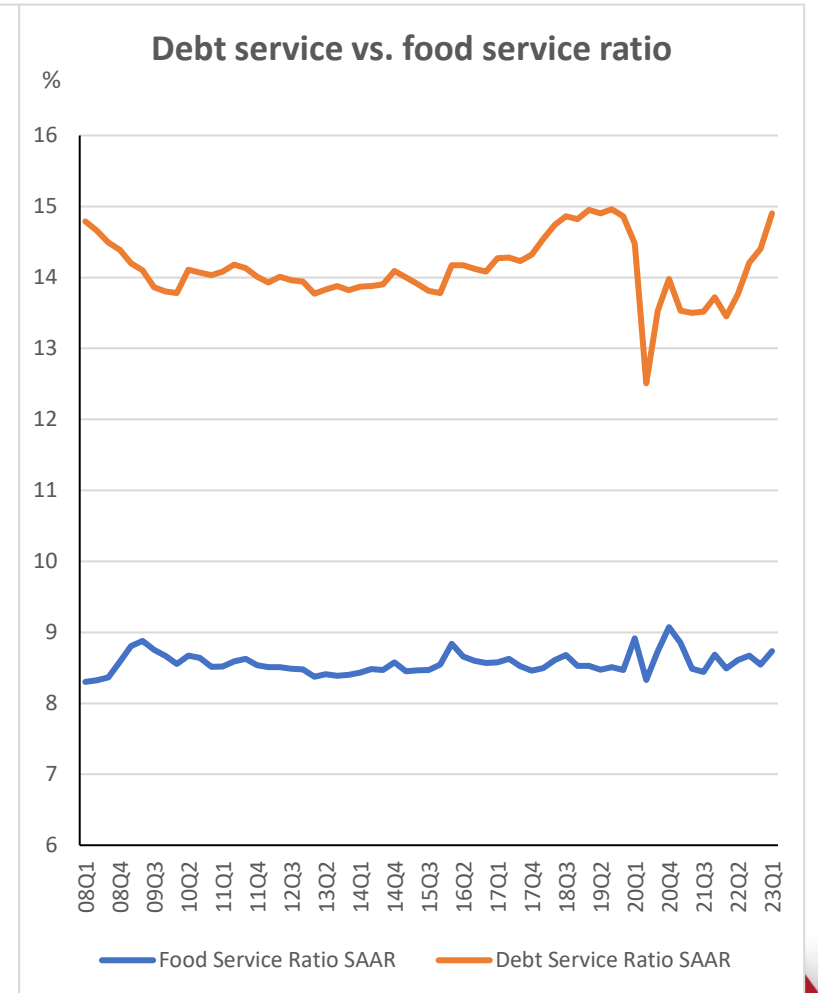
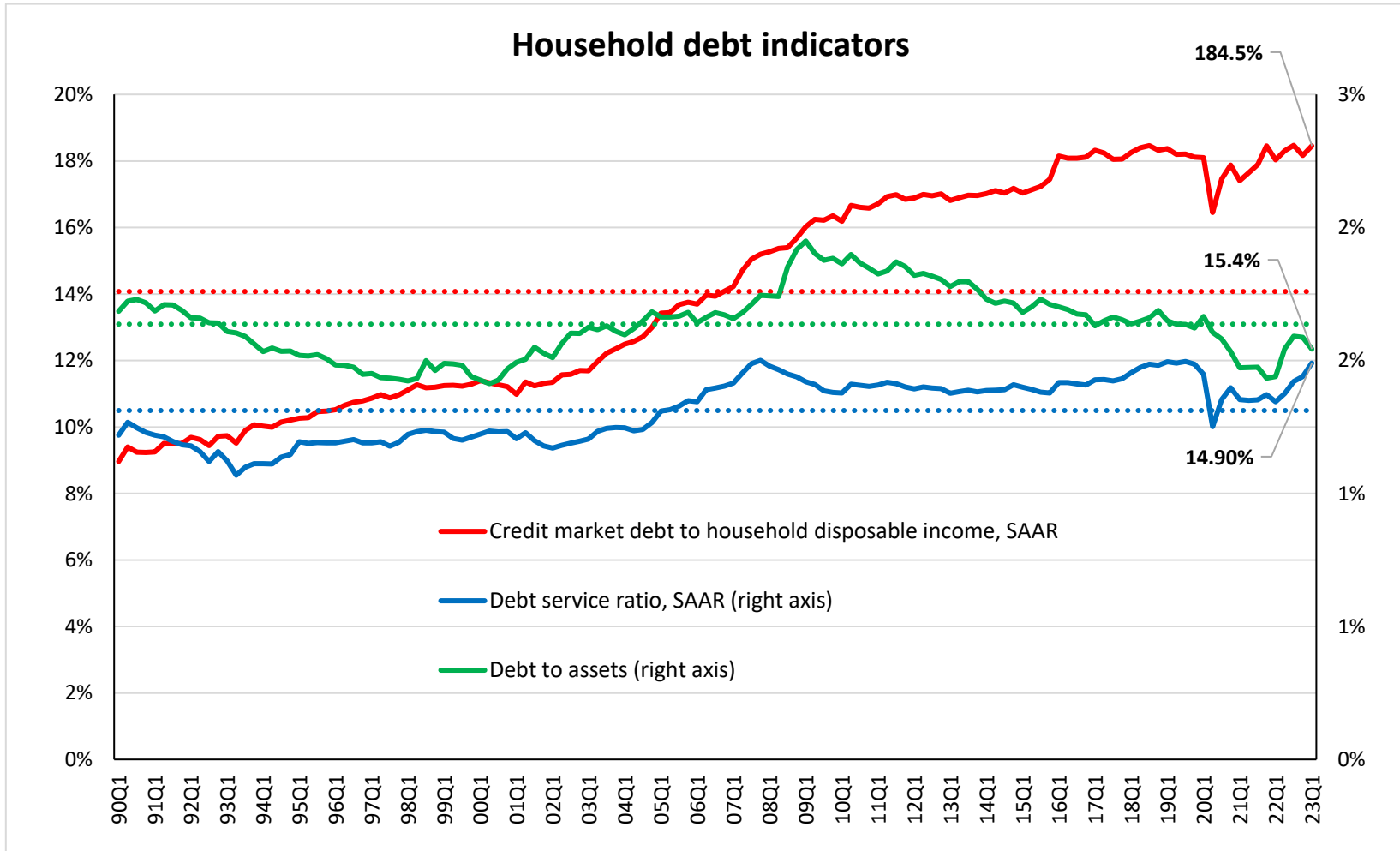


HELOCs - Authorized versus drawn



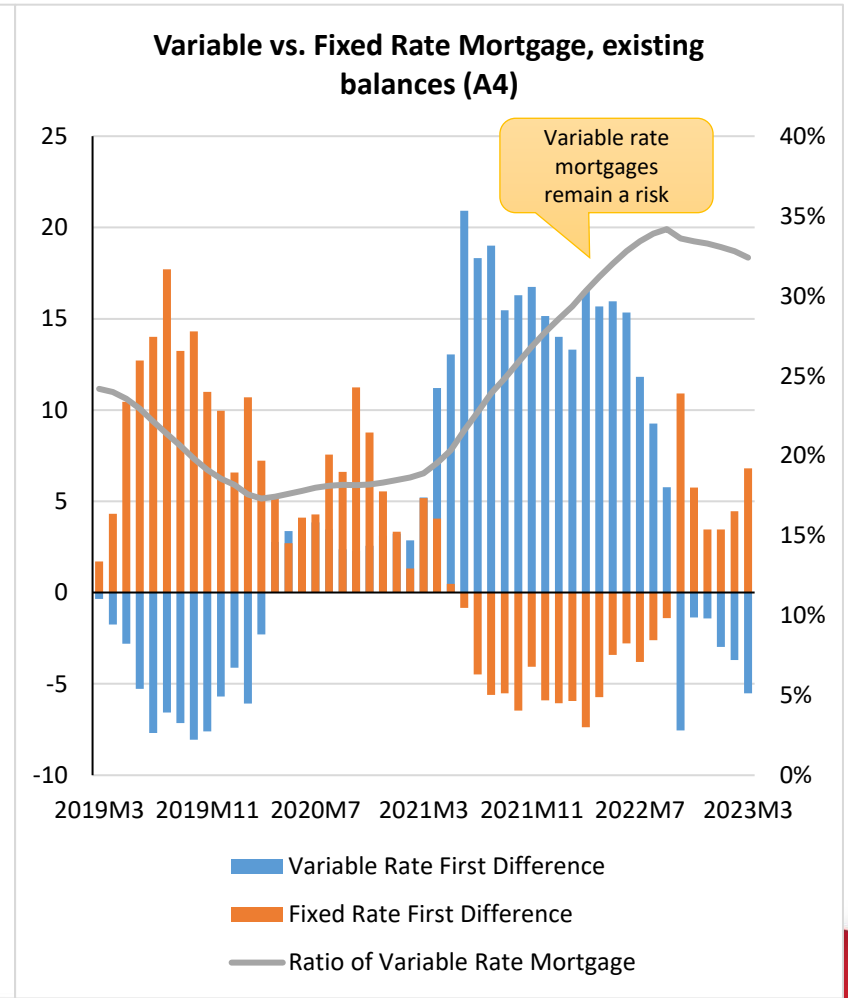
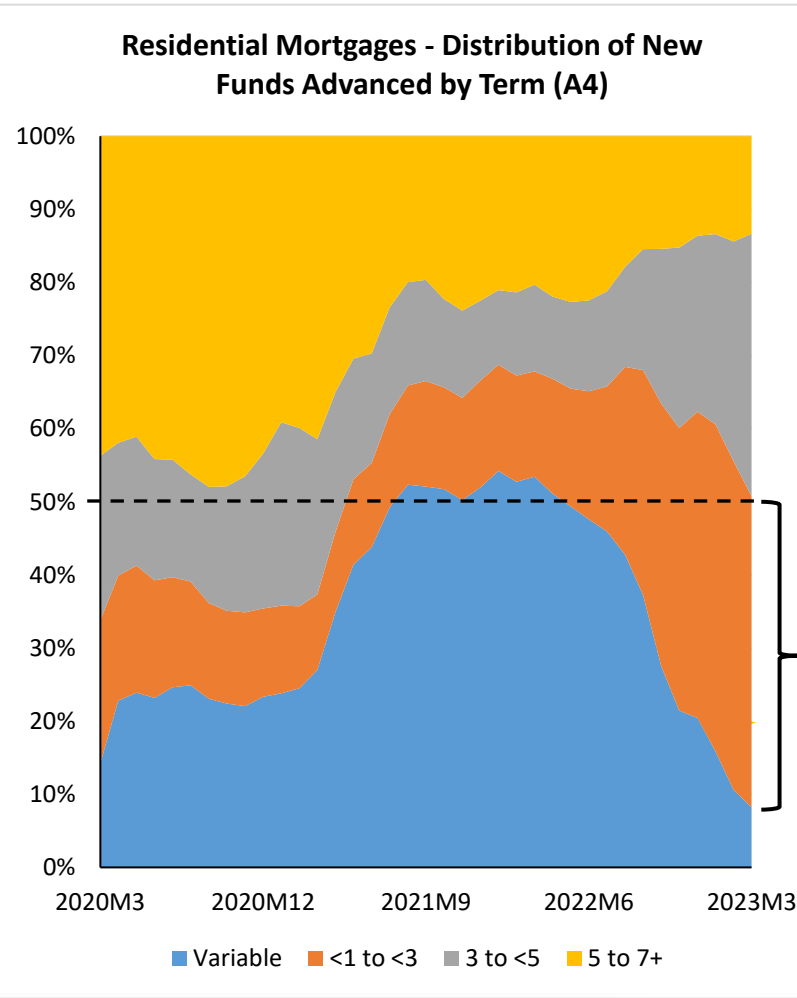
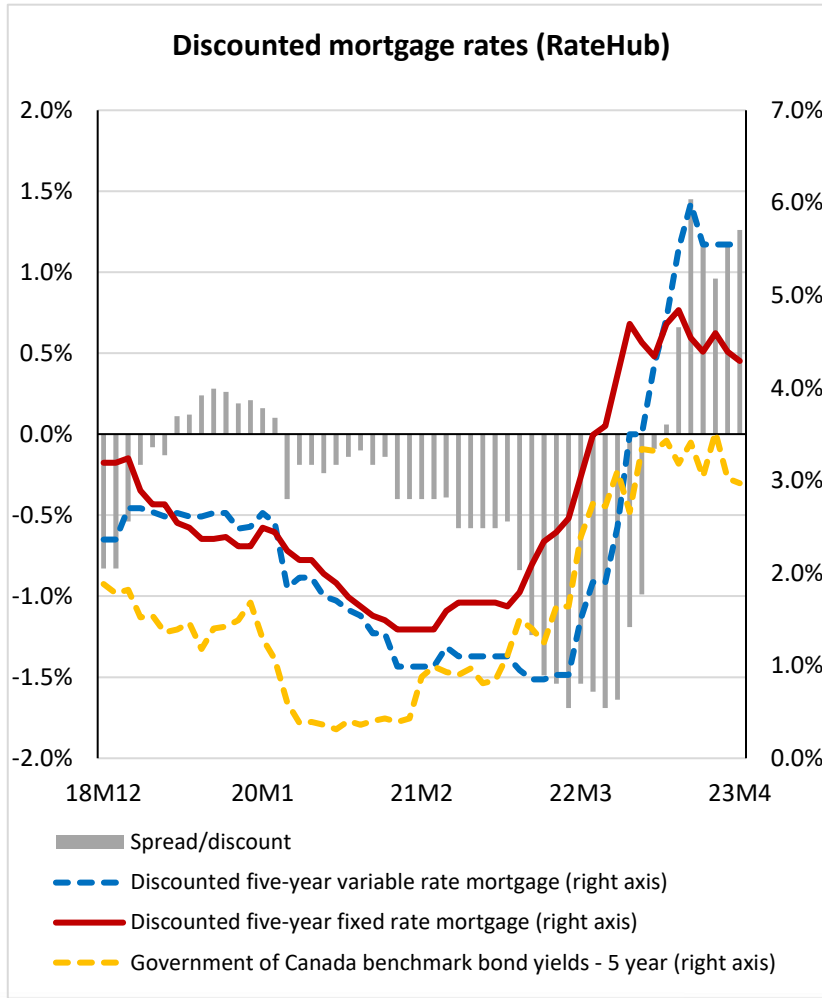
Household debt indicators

- On a seasonally adjusted basis, household credit market debt as a proportion of household disposable income increased to 184.5% in the first quarter



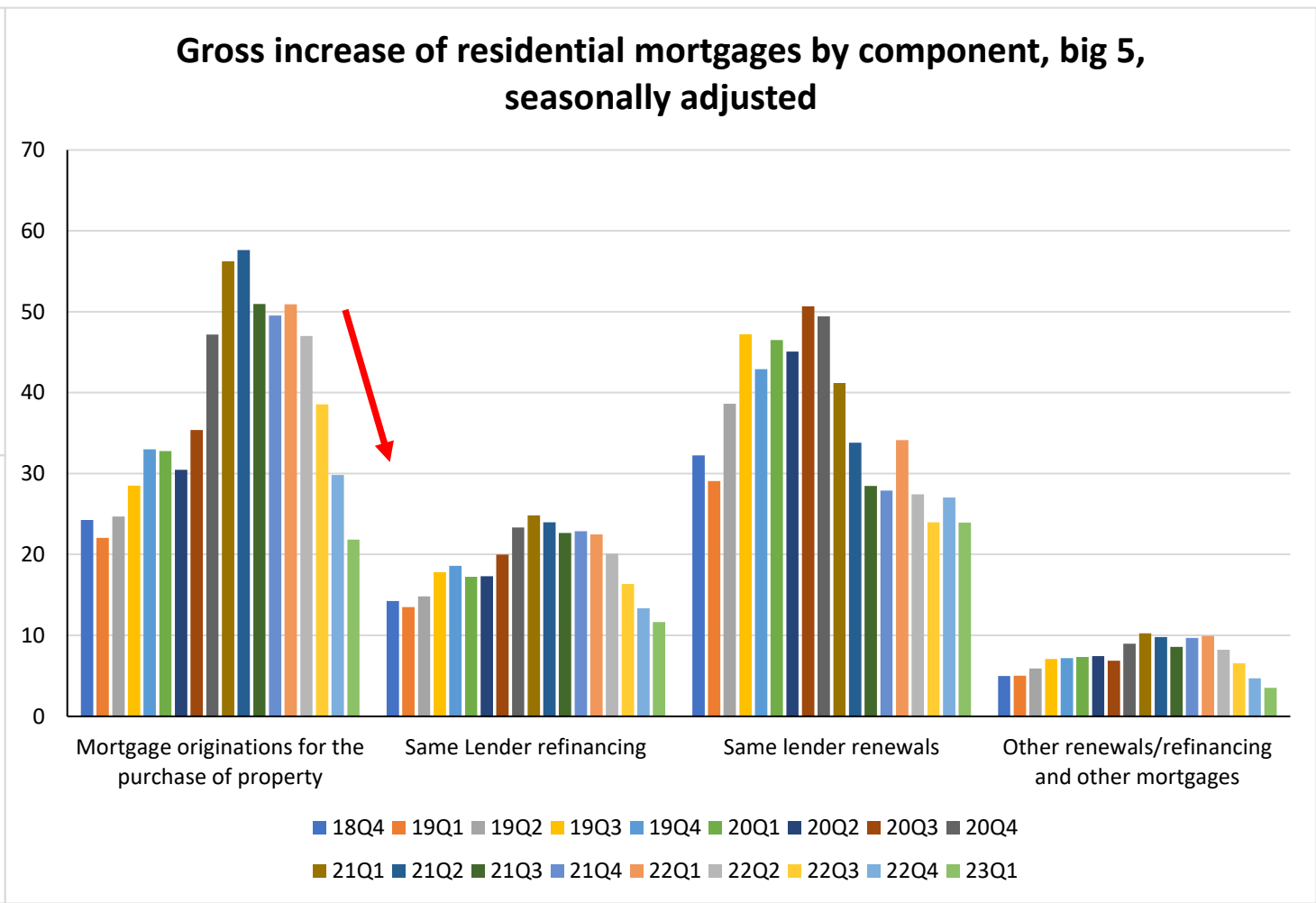
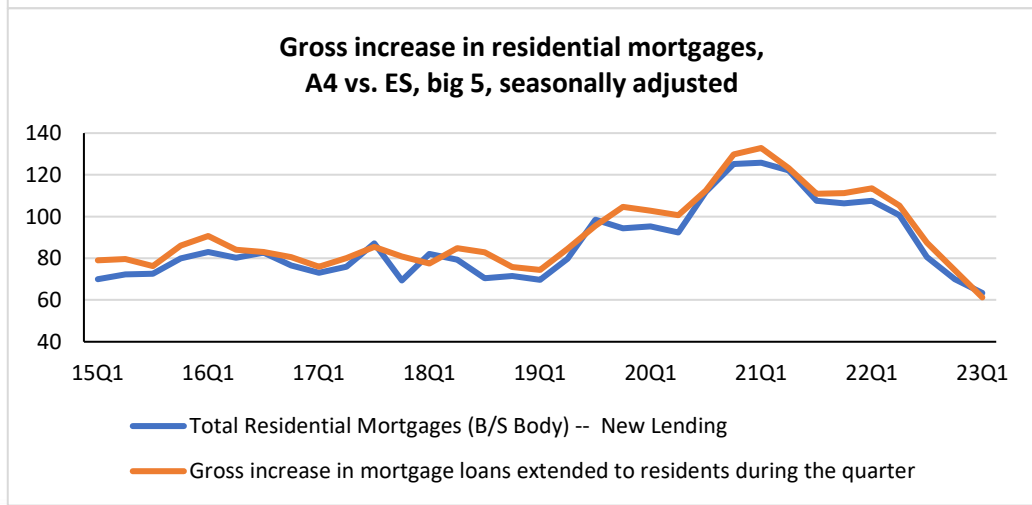
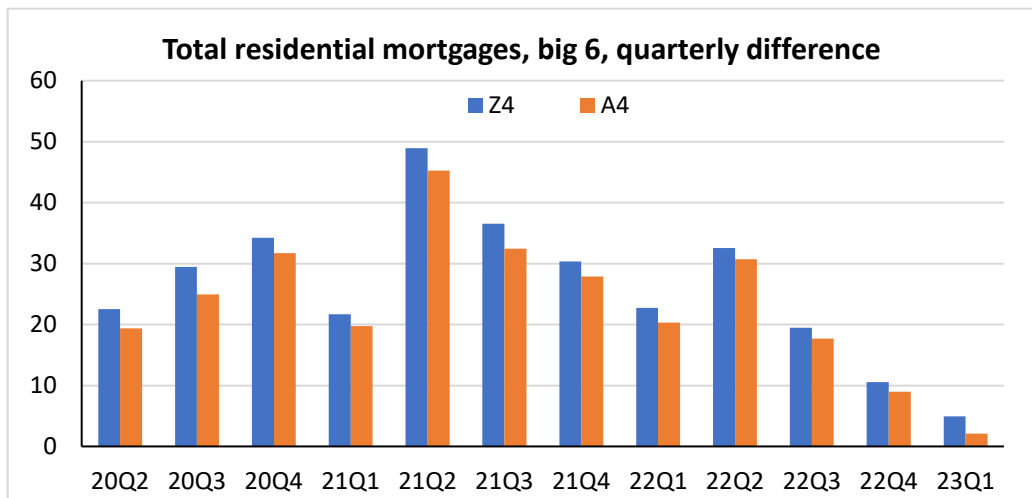
Mortgage conditions

- Popularity of variable rate mortgages continued to fall given the interest rate environment
- Variable rate mortgages still represent almost one-third of total outstanding mortgage debt



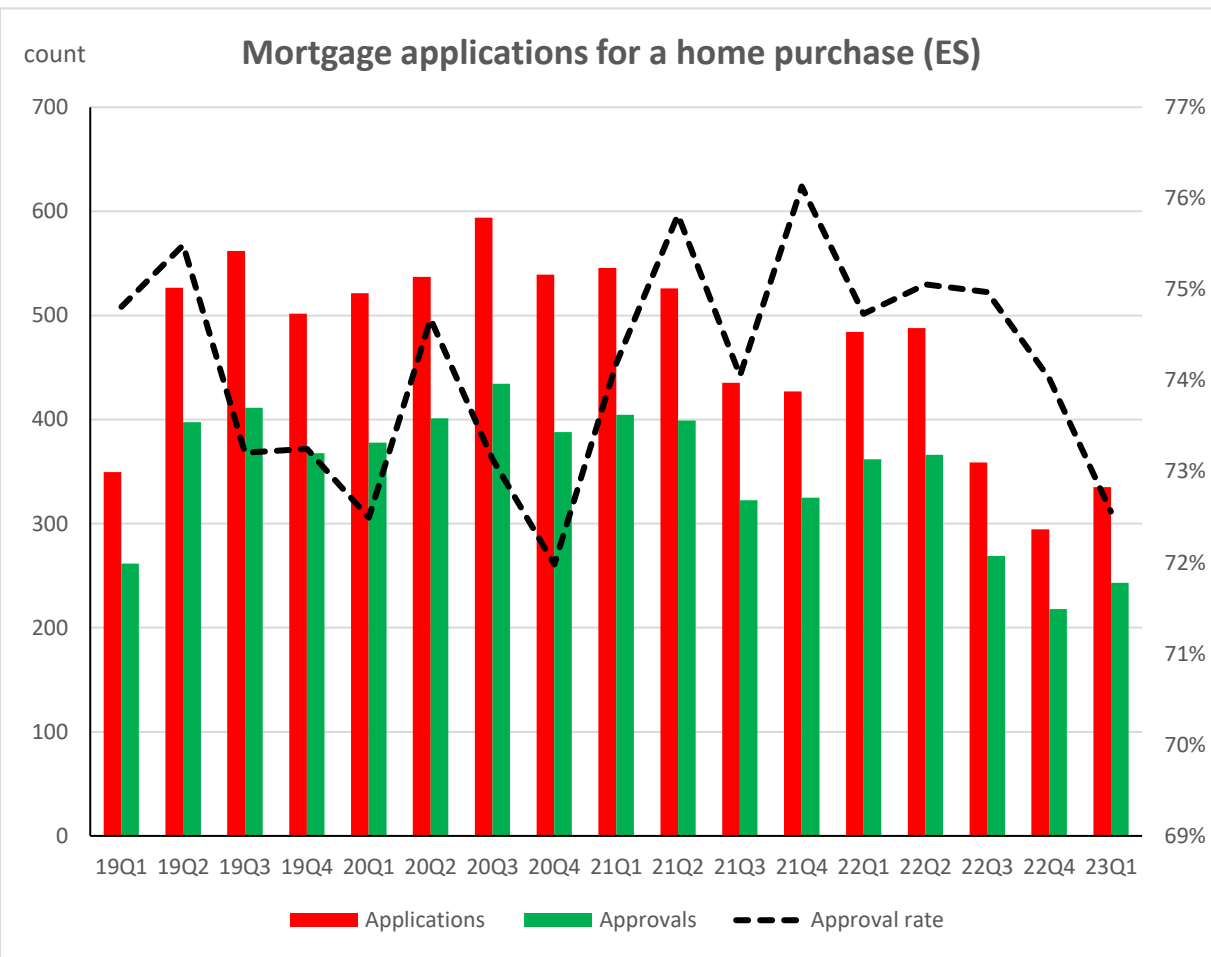
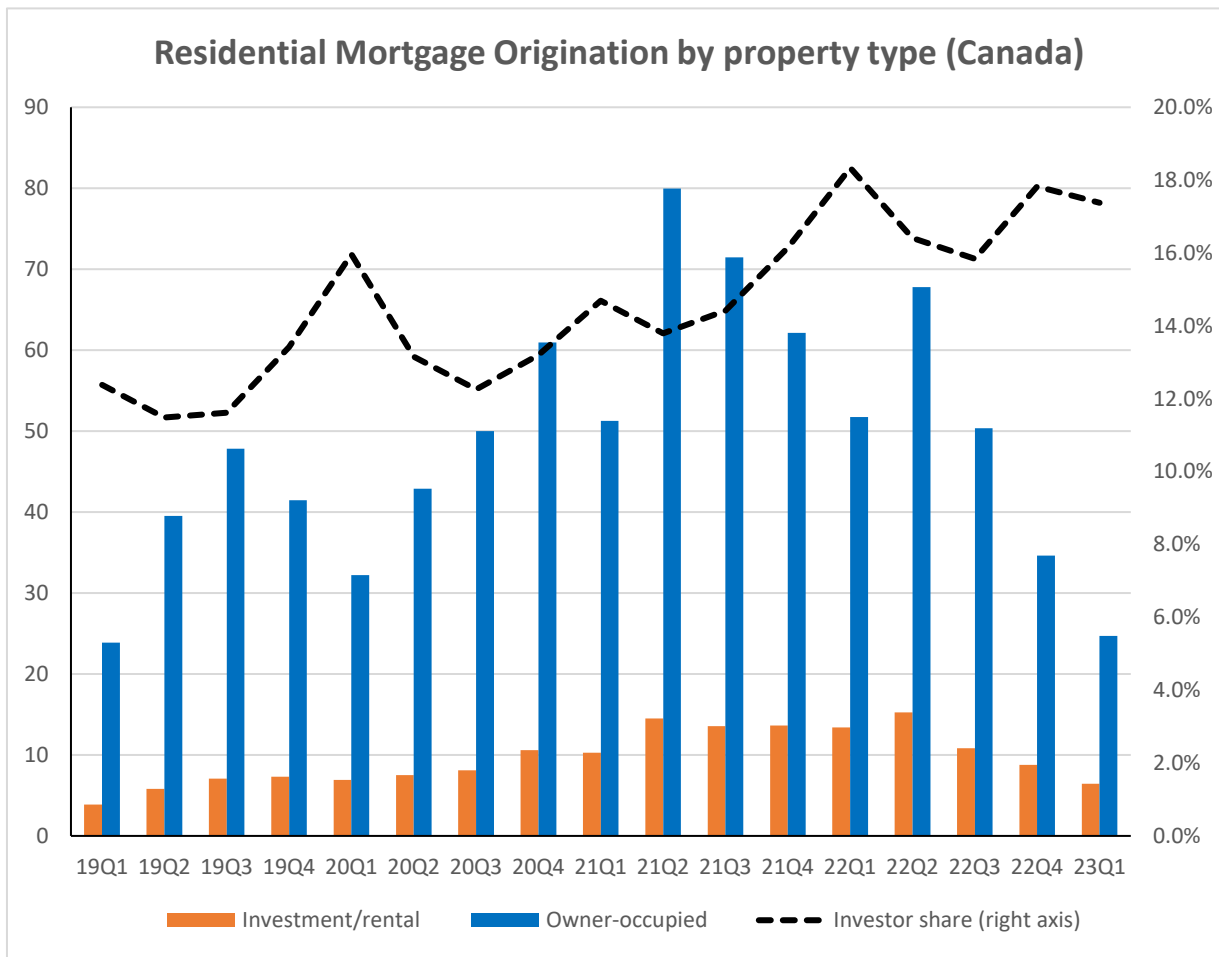
Mortgages with chartered banks

- Banks: general slowdown in mortgage borrowing across originations, refinancing, and renewals
- Non-banks: [The Daily — Survey of Non-Bank Mortgage Lenders, fourth quarter 2022](#)



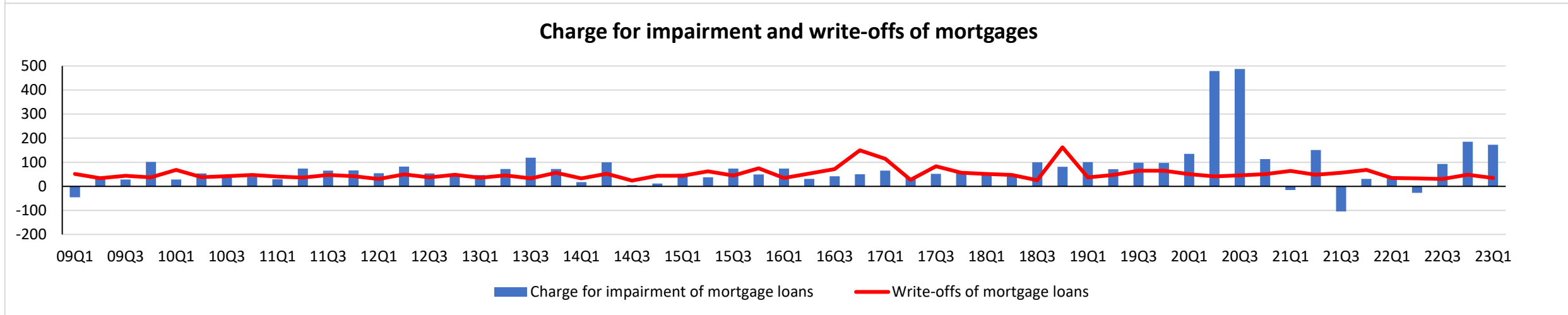
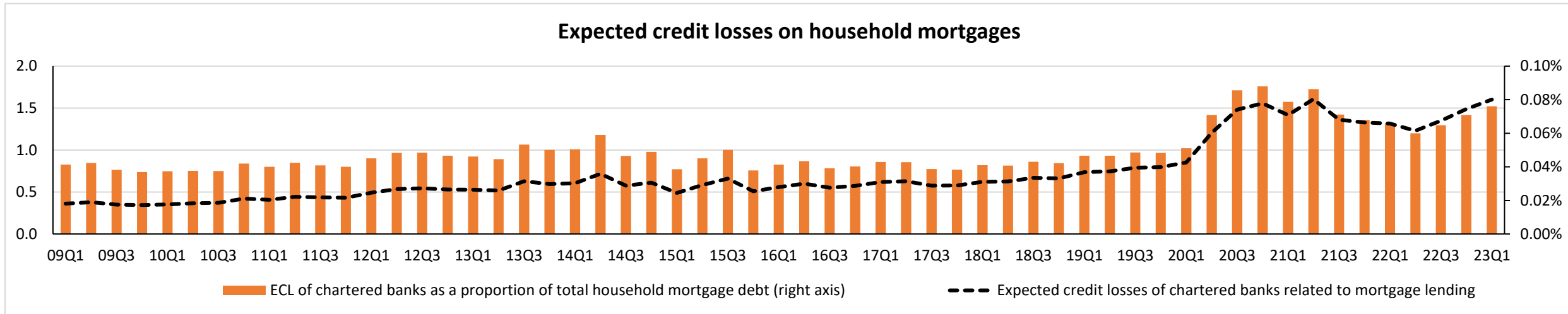
Originations by property type and mortgage applications

- Investor share of residential mortgages originations remains stable, but both investor and owner-occupied originations falling
- Mortgage application approval rate falls for third consecutive quarter



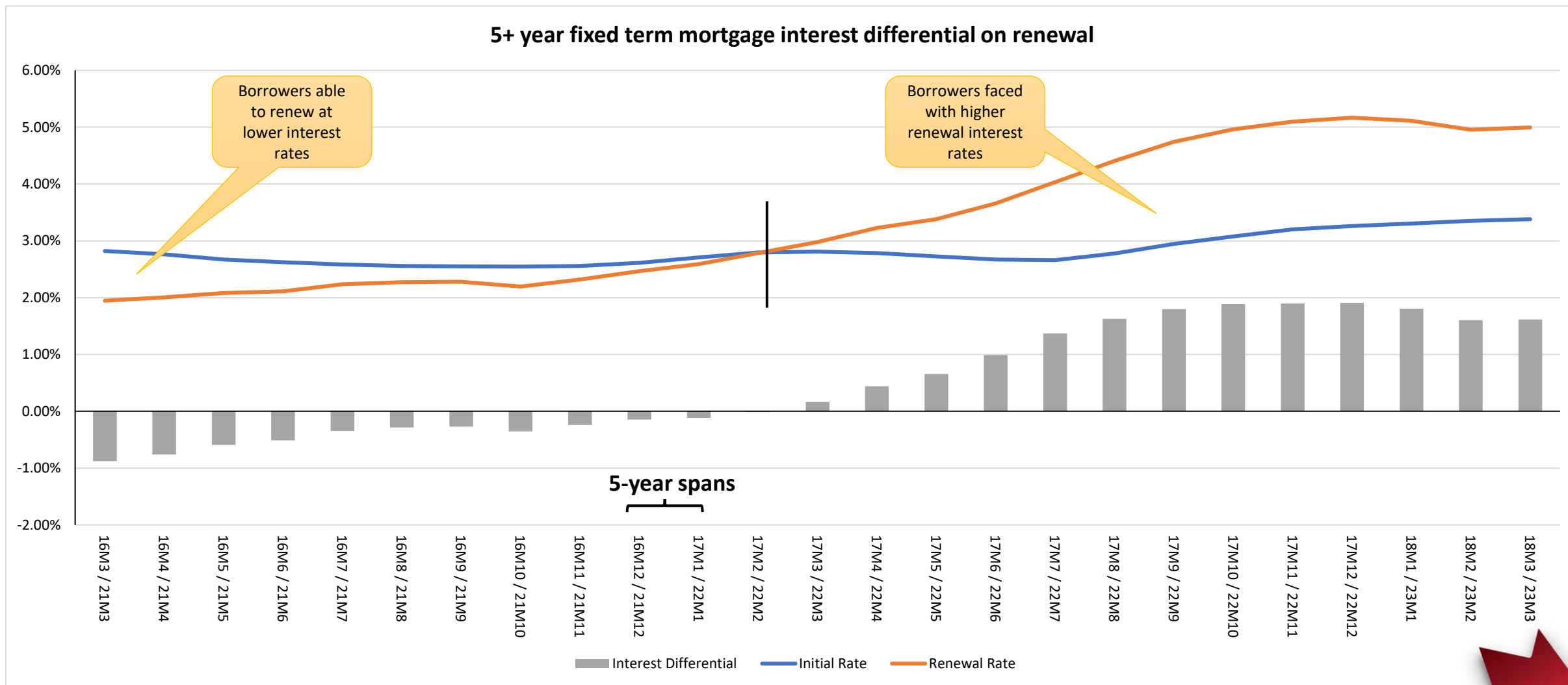
Expected credit losses (ECL)

- Record provisions at start of 2020 have since eased, but are starting to move higher in Q1
- Expected credit losses remain at elevated levels, but represent a tiny share of total mortgage debt



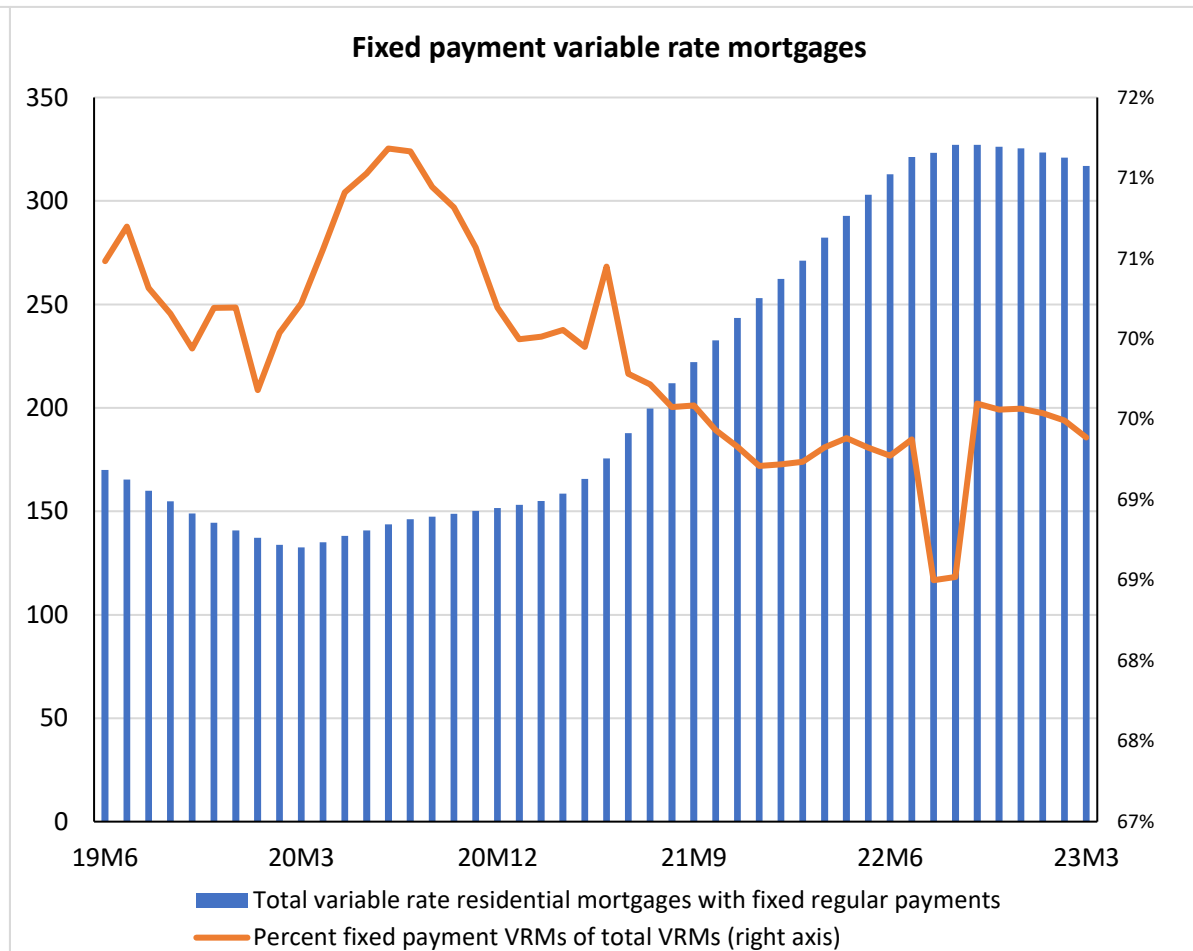
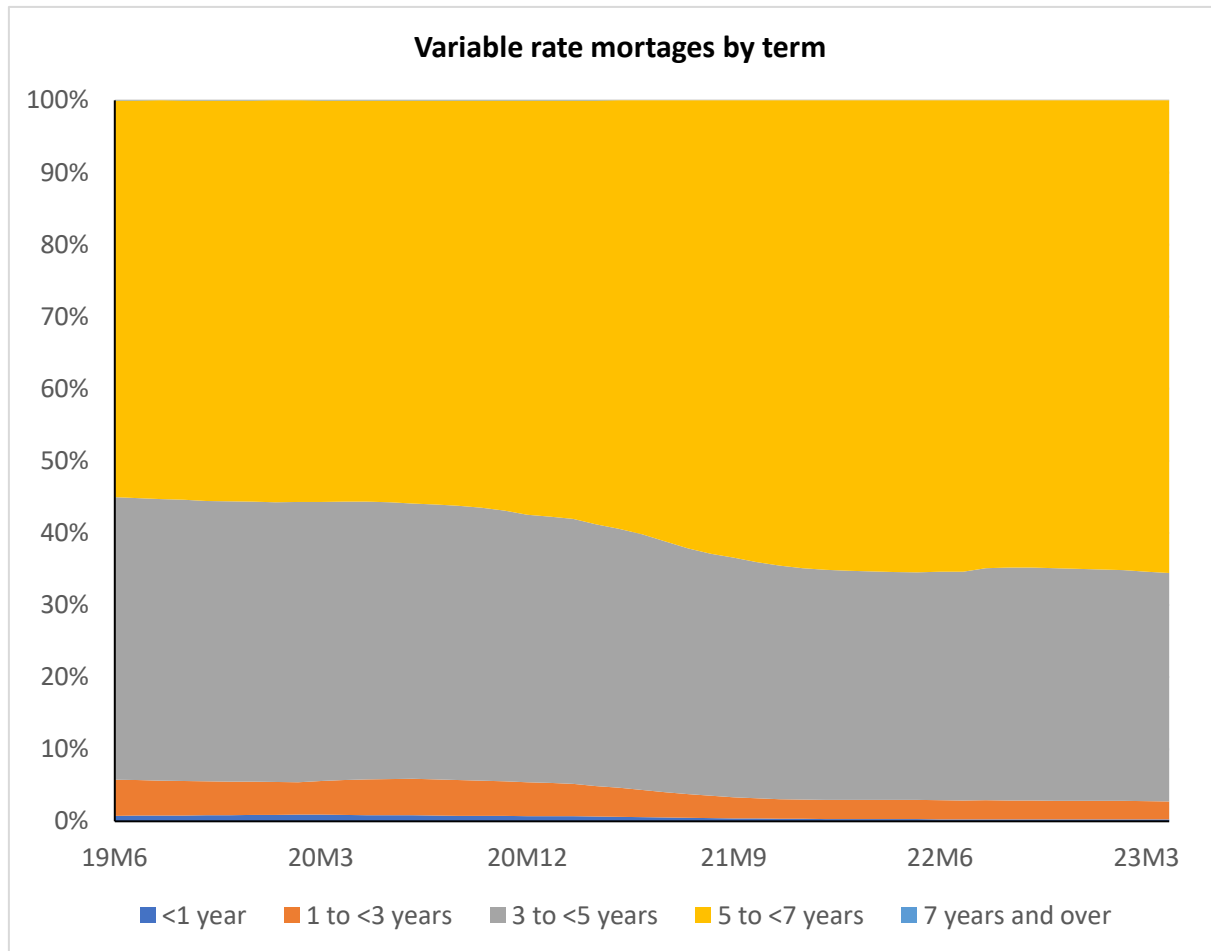
Obligated mortgage payments

- Comparing start and end term interest rates to see impact of rate increases over time



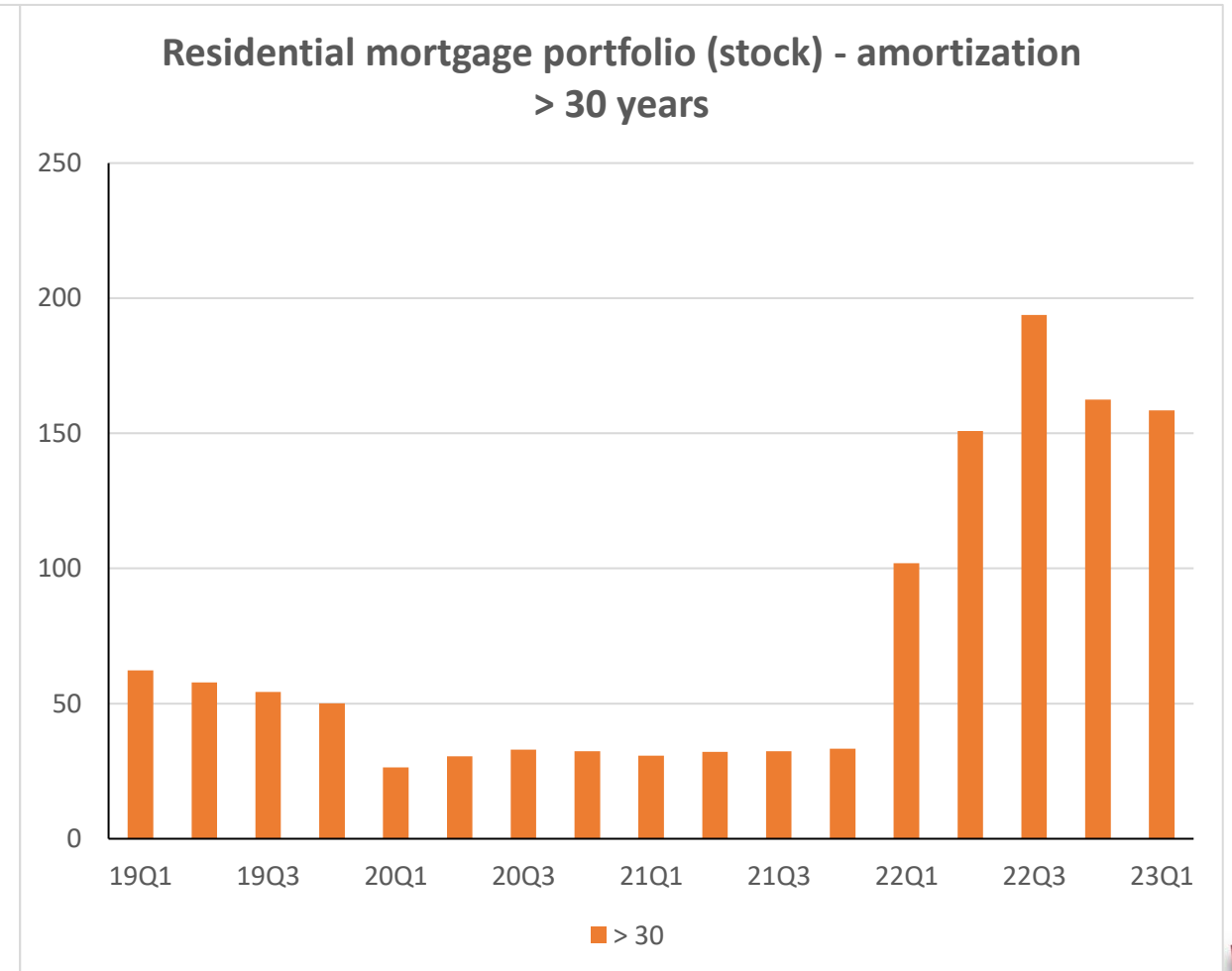
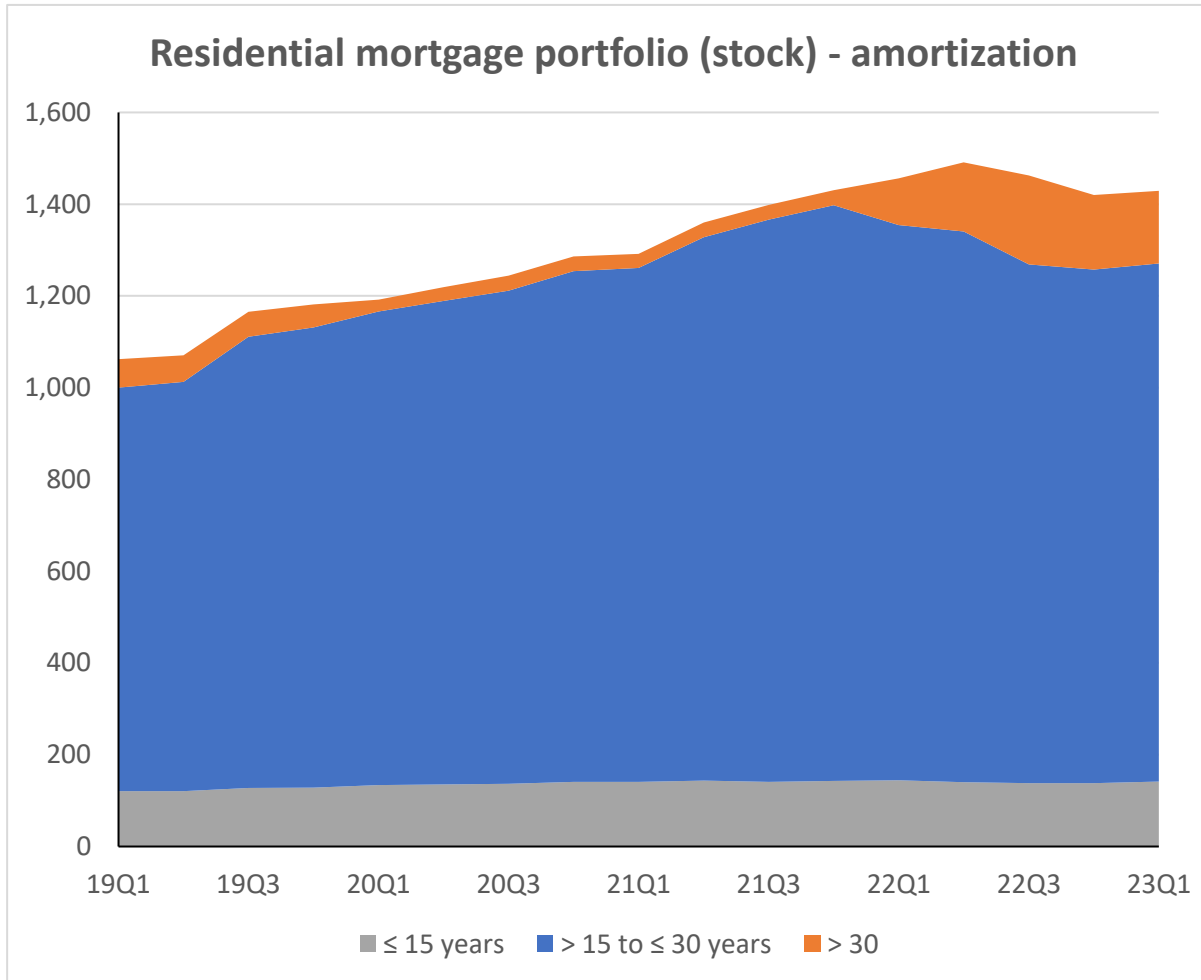
Variable rate mortgages

- Majority of variable rate mortgage borrowing is 3+ year terms
- Over two thirds of chartered bank variable rate mortgages are fixed payment



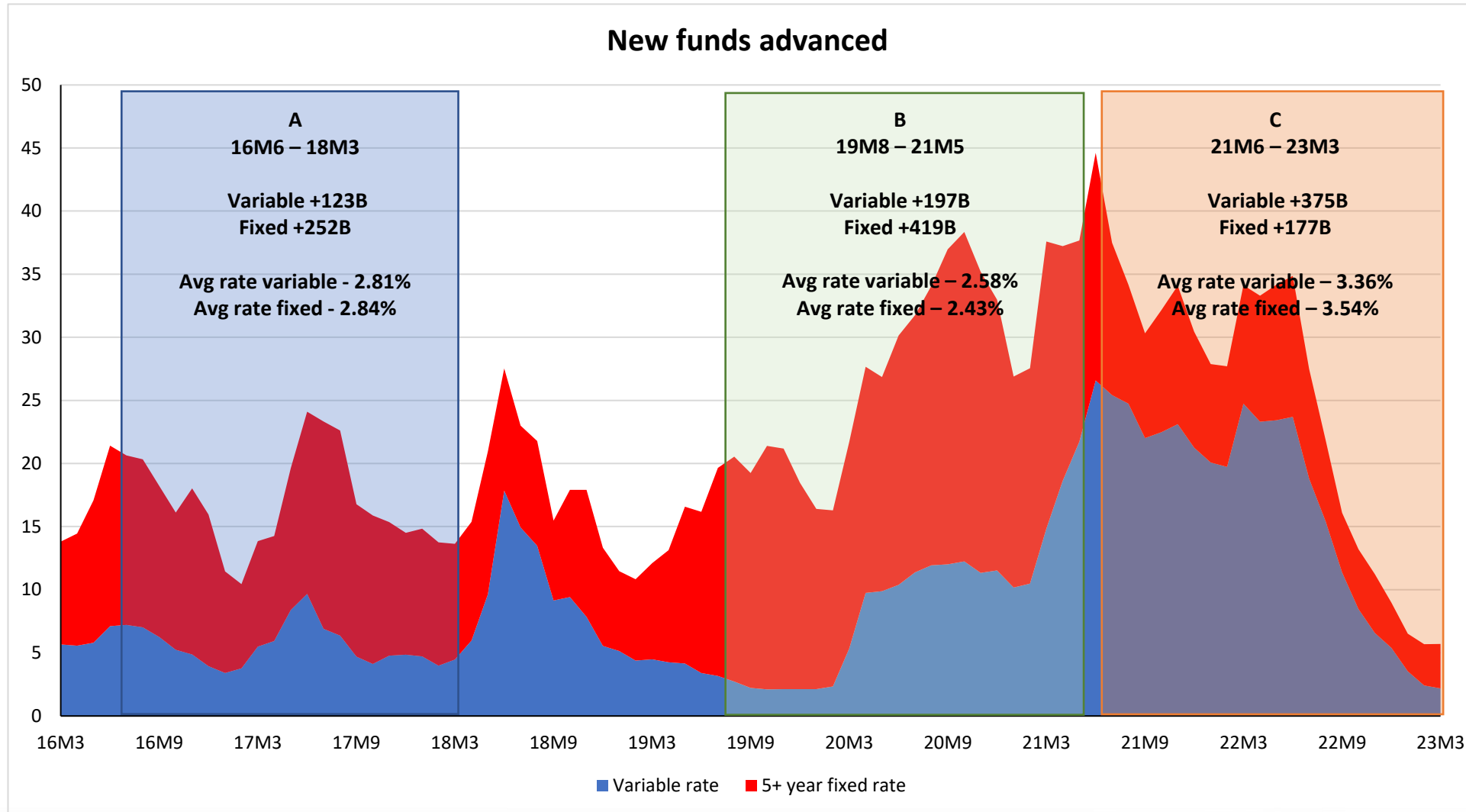
Amortization periods

- Significant movement into longer amortization of mortgages



Obligated mortgage payments

- What is the renewal risk facing households as a result of mortgages reaching their term?



D
Renewal (B+C)
2024-2027

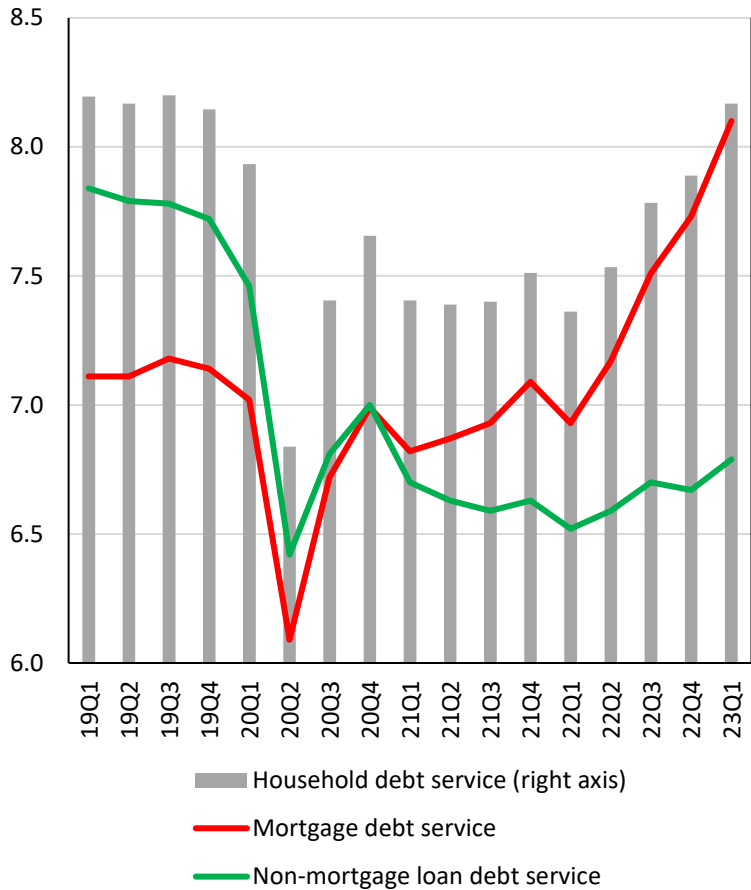
Potential rate variable – 6%
 Potential rate fixed – 4%

?

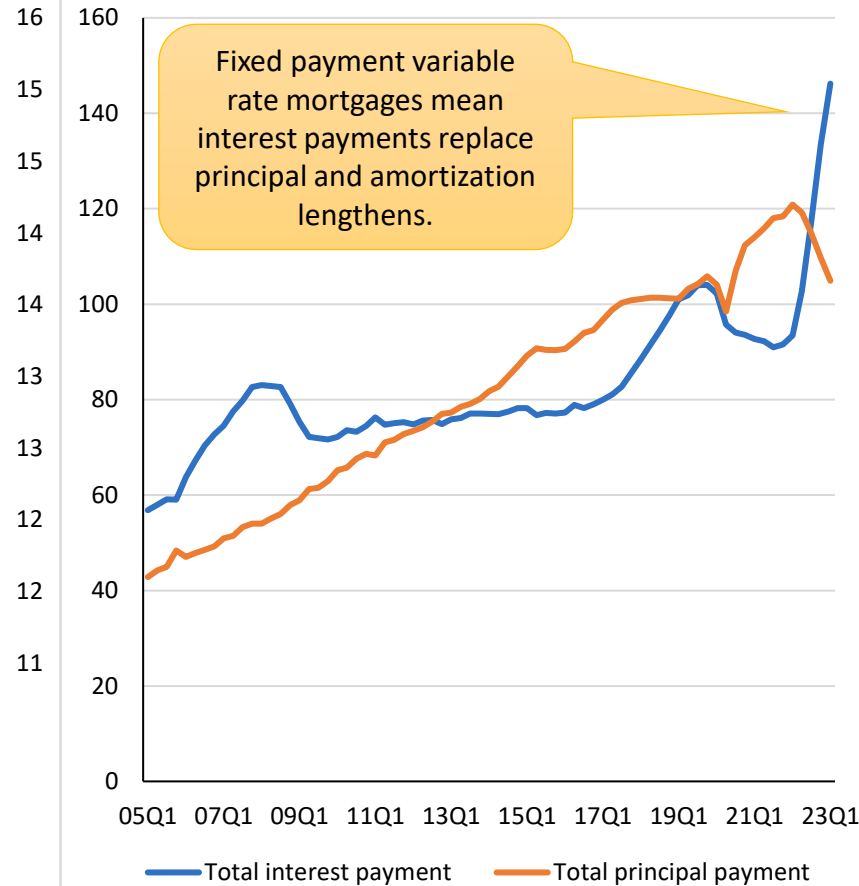
Household debt service indicator

- The household debt service ratio was 14.90% in the first quarter
- Higher mortgage debt service driving the overall ratio higher

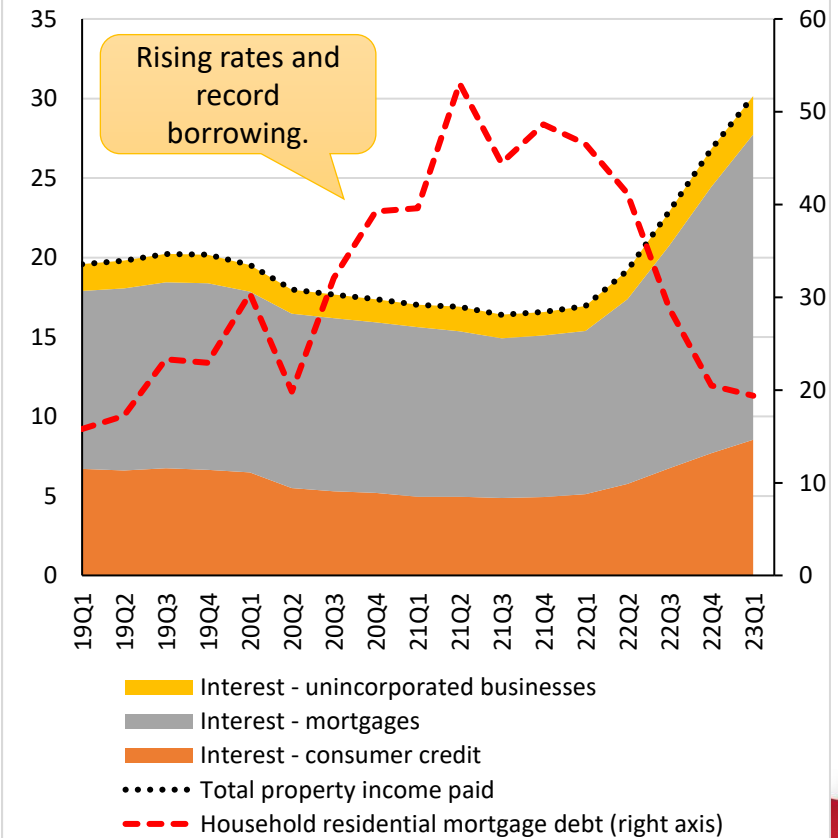
Household debt service



Debt servicing: interest vs principal



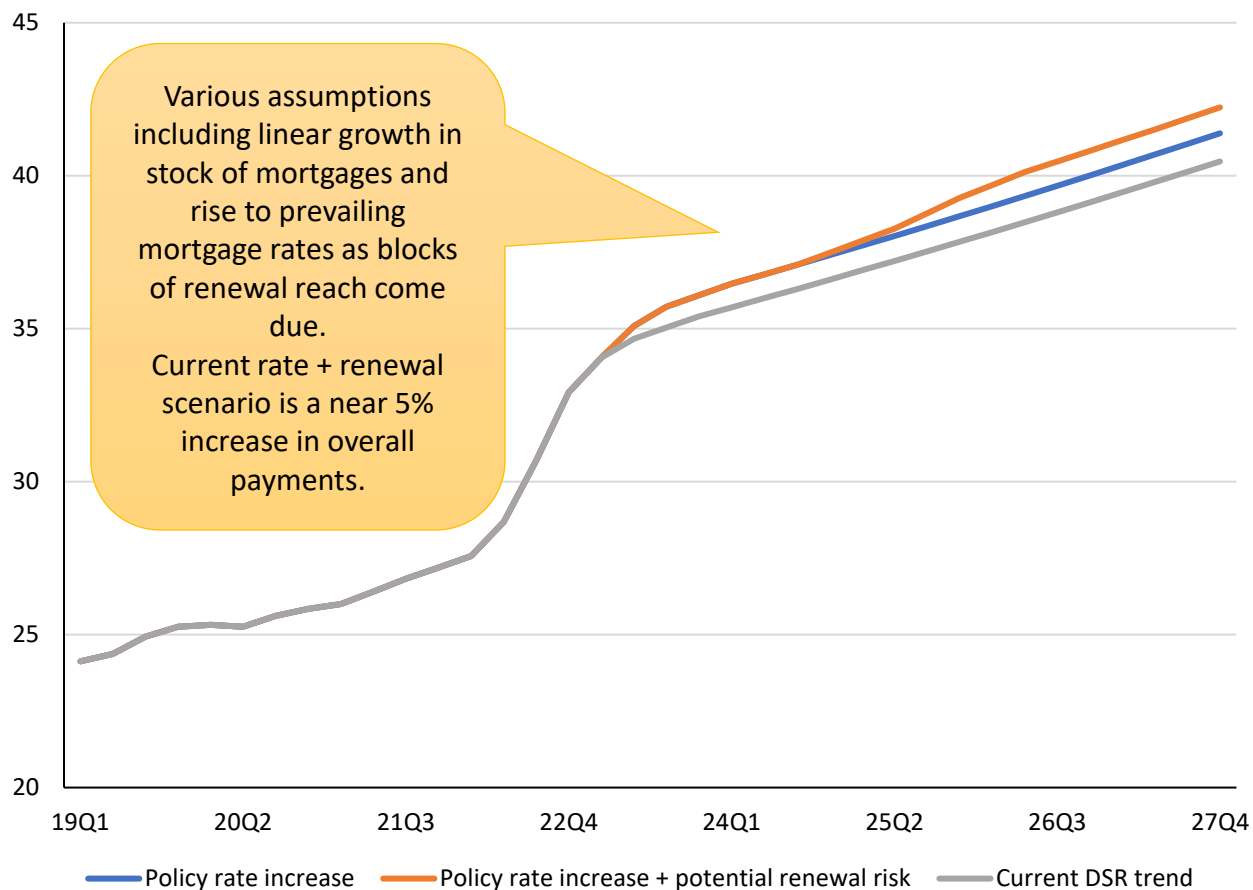
Interest paid and mortgage debt accumulation



Debt servicing and amortization

- Incomes are a key unknown element; a slowing economy and increased unemployment would exert additional pressure

Debt service – total payments - potential future trends



Future impacts by mortgage type (assumes renewals into same type)

Fixed-term

- Rising interest rates do not immediately impact payments. **Interest rate risk and increase payments at renewal/refinance period.**
- To try and keep future payments similar, borrowers can make lump-sum payments or scheduled overpayments if mortgage terms allow.

Variable rate – fixed payment

- Rising interest shifts balance of interest versus principal payments; amortization period adjusts accordingly during remaining term until **reset at renewal**; overall payment unchanged unless trigger rate is reached.
- If trigger rate reached:
 - Regular payments increase/lump-sum payments
 - Excess interest goes to balance (negative amortization)
 - Switch to fixed-rate mortgage

Variable rate – variable payment

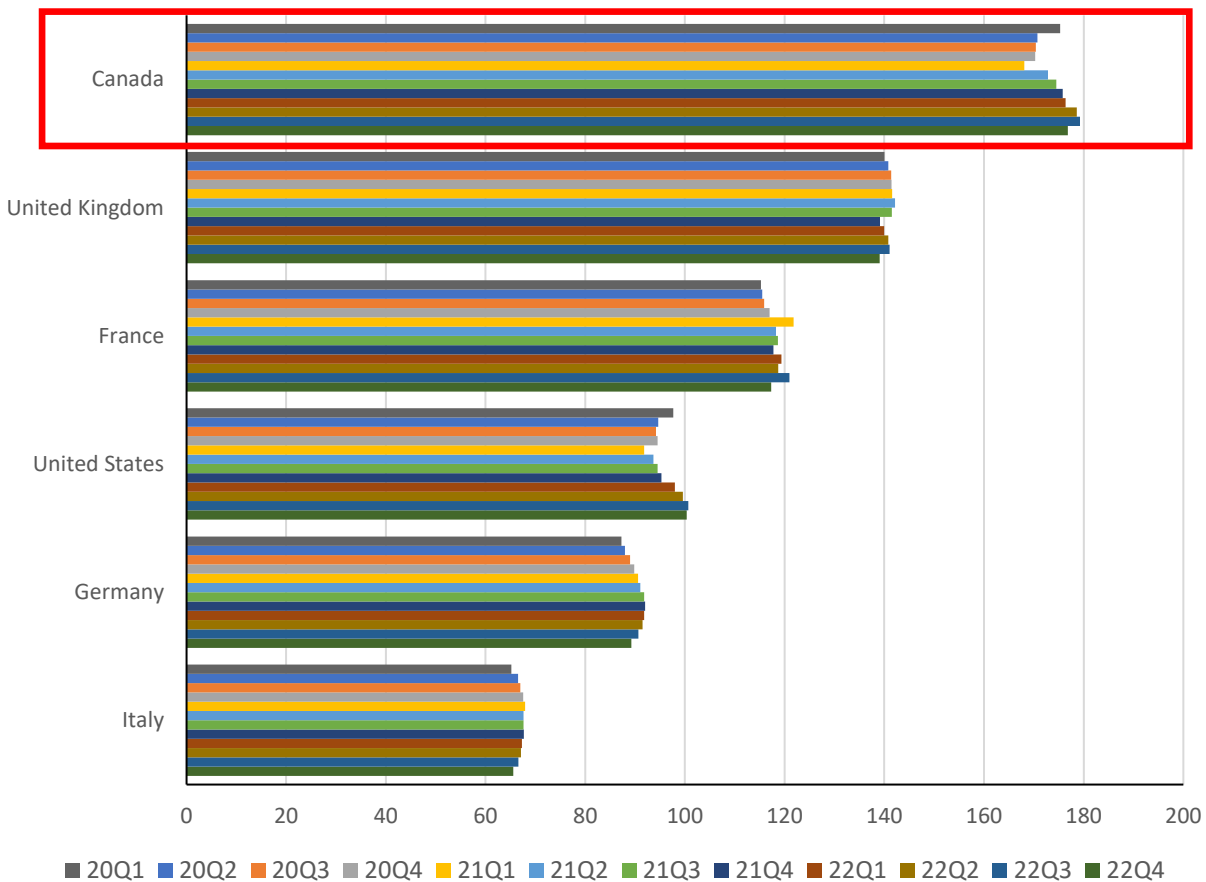
- Size of regular **payments adjusts as prime interest rate changes** (potential for lag)
- Rising interest rates have immediate impact on payments.
- Total payment adjusts as rates change.
- Amortization period remains unchanged.

Source: [Variable-rate mortgages with fixed payments: Examining trigger rates \(Bank of Canada\)](#)

Household debt – international comparison

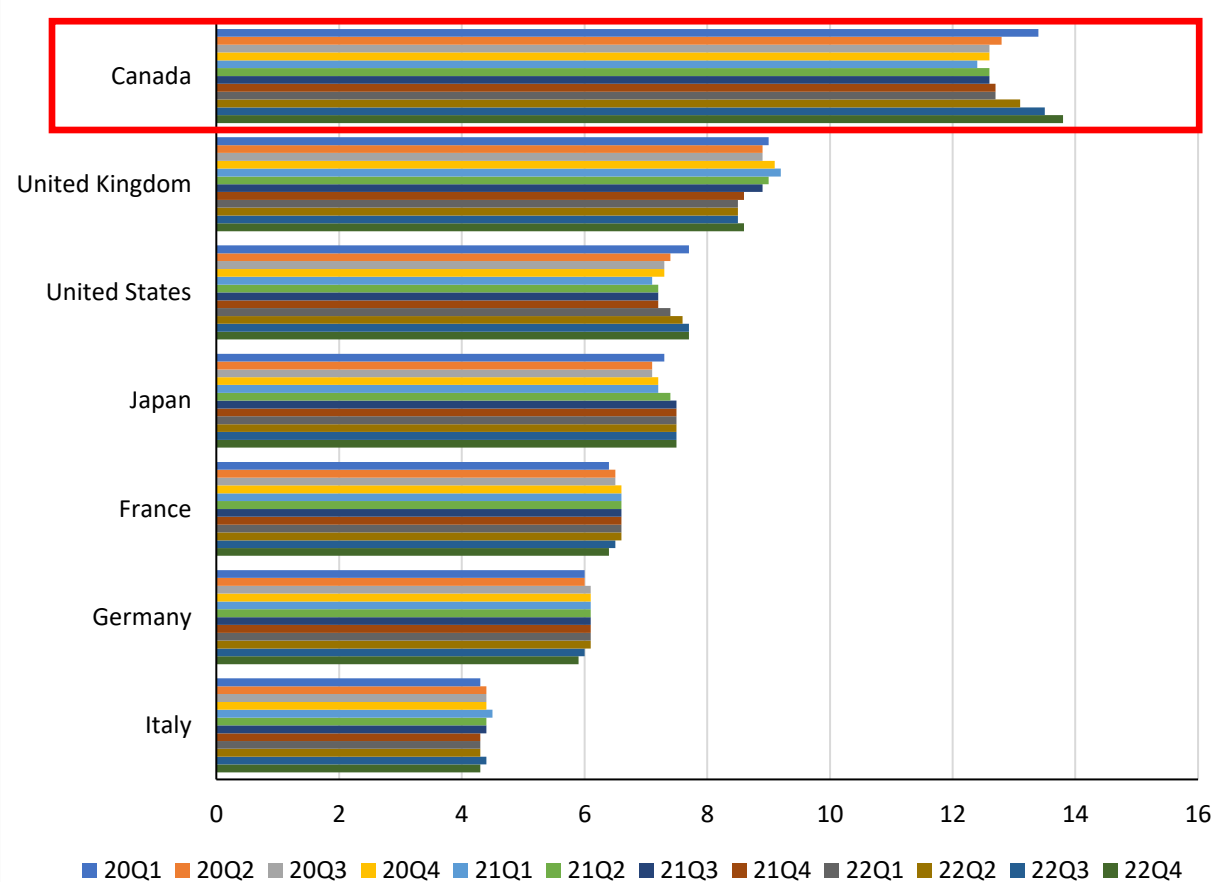
- Compared with the G7, Canada ranks high on indebtedness and debt servicing

Household indebtedness ratio (OECD)



https://stats.oecd.org/Index.aspx?DataSetCode=HH_DASH

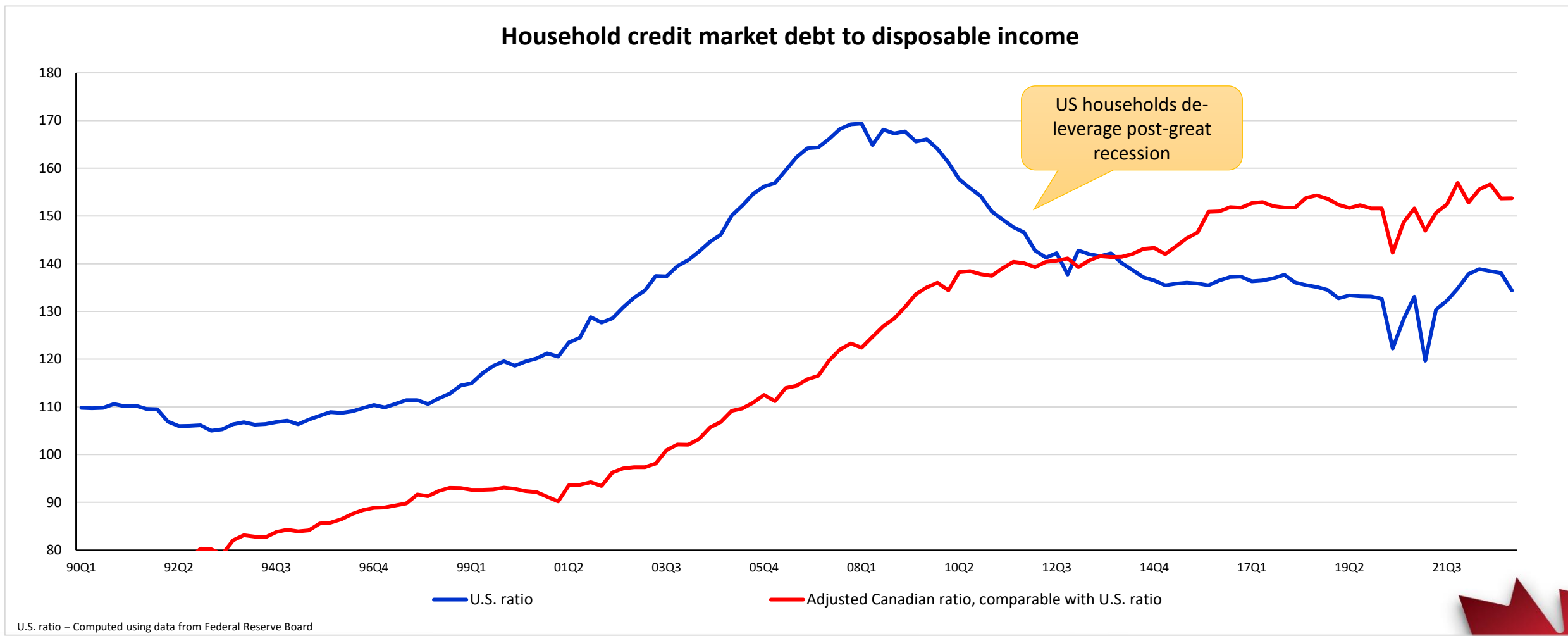
Household debt service ratio (BIS)



<https://www.bis.org/statistics/dsr.htm>

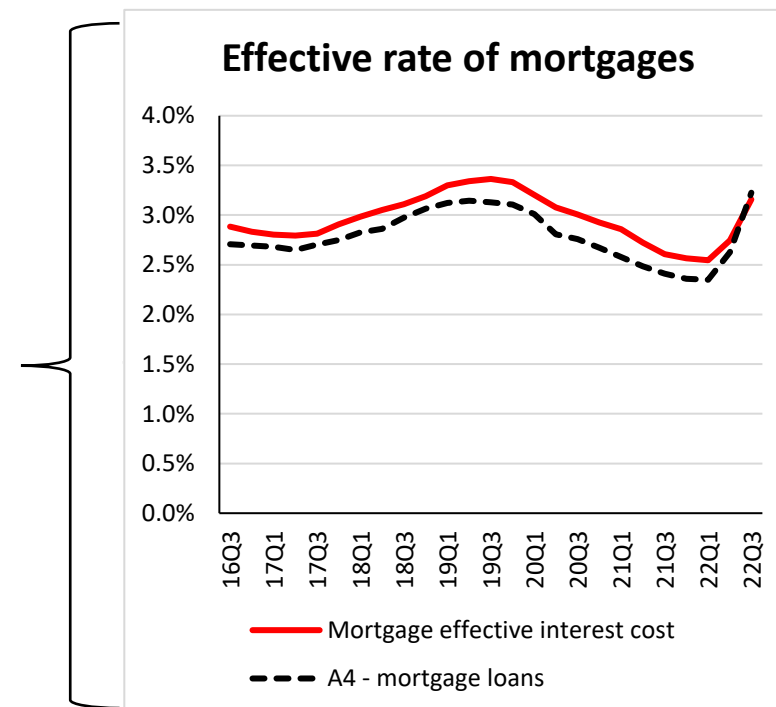
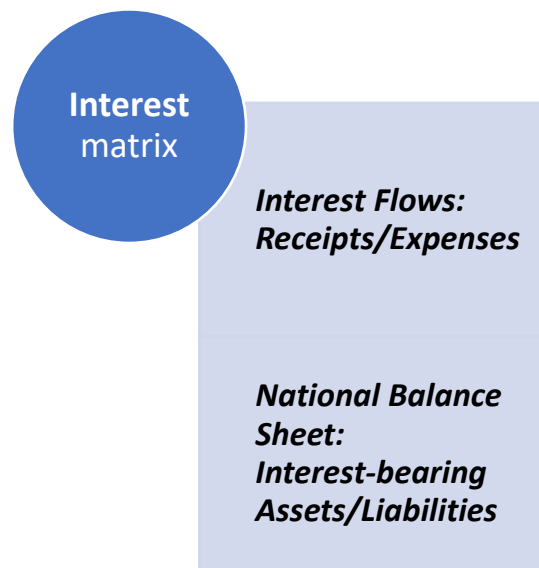
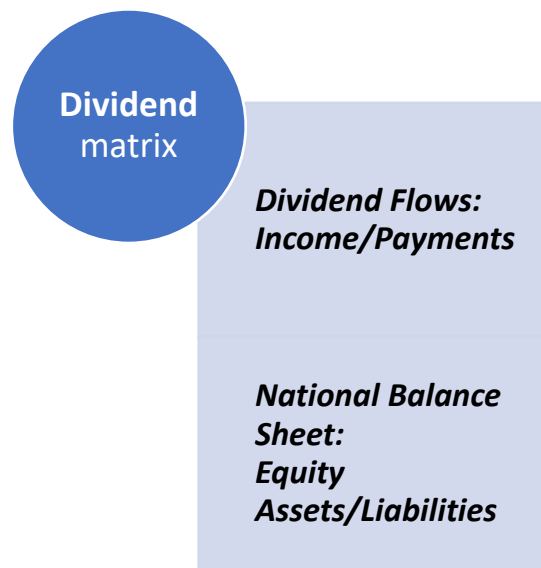
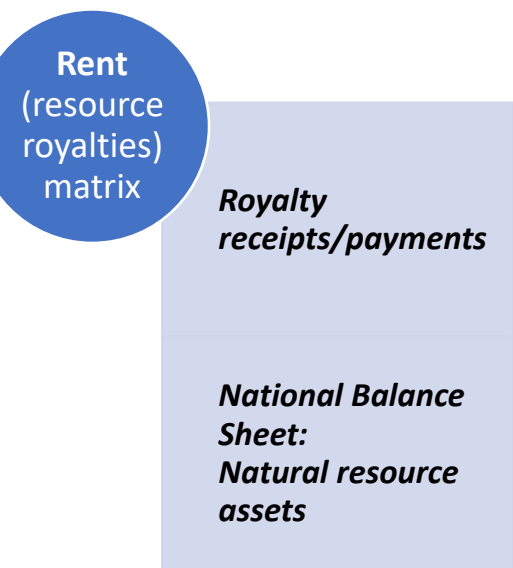
Household debt – U.S. comparison

- Since the great recession, U.S. households have deleveraged, while Canadian households have continued to accumulate more debt relative to income; [Reconciling Canadian-U.S. measures of household income and debt](#)



Linking IEA and FWA - interest/dividend matrix (IDM)

- The IDM is an economic account that links both interest & dividend flows from the IEA to financial instruments in the National Balance Sheet Accounts
- Interest Matrix - consists of both interest receipts and expenses along with the corresponding assets and liabilities (i.e. financial instruments) for each sub-sector
- Control totals based on all known data values are first established and entered accordingly
- Covers 30 sub-sectors, subsequently aggregated into the 5 main institutional sectors
- Three distinct frameworks possible:



FWA: From-whom-to-whom (FWTW)



From-whom-to-whom - background

- From-whom-to-whom = FWTW
- Special Data Dissemination Plus (SDDS+), G20 Data Gaps initiative
 - The International Monetary Fund (IMF) has provided twenty recommendations to address the data gaps identified after the global financial crisis in the late 2000s.
 - One objective arising from these recommendations, known as Phase 2 of the Data Gaps Initiative (DGI-2) , was to provide more granular counterparty information as part of the balance sheet and financial accounts
- Counterparty information: “who owes what to whom?”
- Data sheds light on the sectoral composition of assets and liabilities, and on potential strengths and vulnerabilities in portfolios as well as the intersectoral linkages and related risks arising from these vulnerabilities.

Current NBSA Analysis	FWTW Analysis
How much mortgage debt do households have?	How much of household mortgages are held by non-bank financial institutions?
How much debt do governments have?	How much debt does our government have with each detailed financial sub-sector?
What are the debt securities assets held by banks?	What value of debt securities did financial corporations buy from other detailed sectors?



Extending the FWA framework with the from-whom-to-whom matrix

- Financial counterparty information: every financial instrument has two counterparts (debtor/creditor, issuer/holder)
- **One-to-one: International Reserves,**
- **One-to-many: Government of Canada Bonds**
- **Many-to-many: loans**

Categories

Non-financial assets

- AN1 - Produced
- AN2 - Non-produced

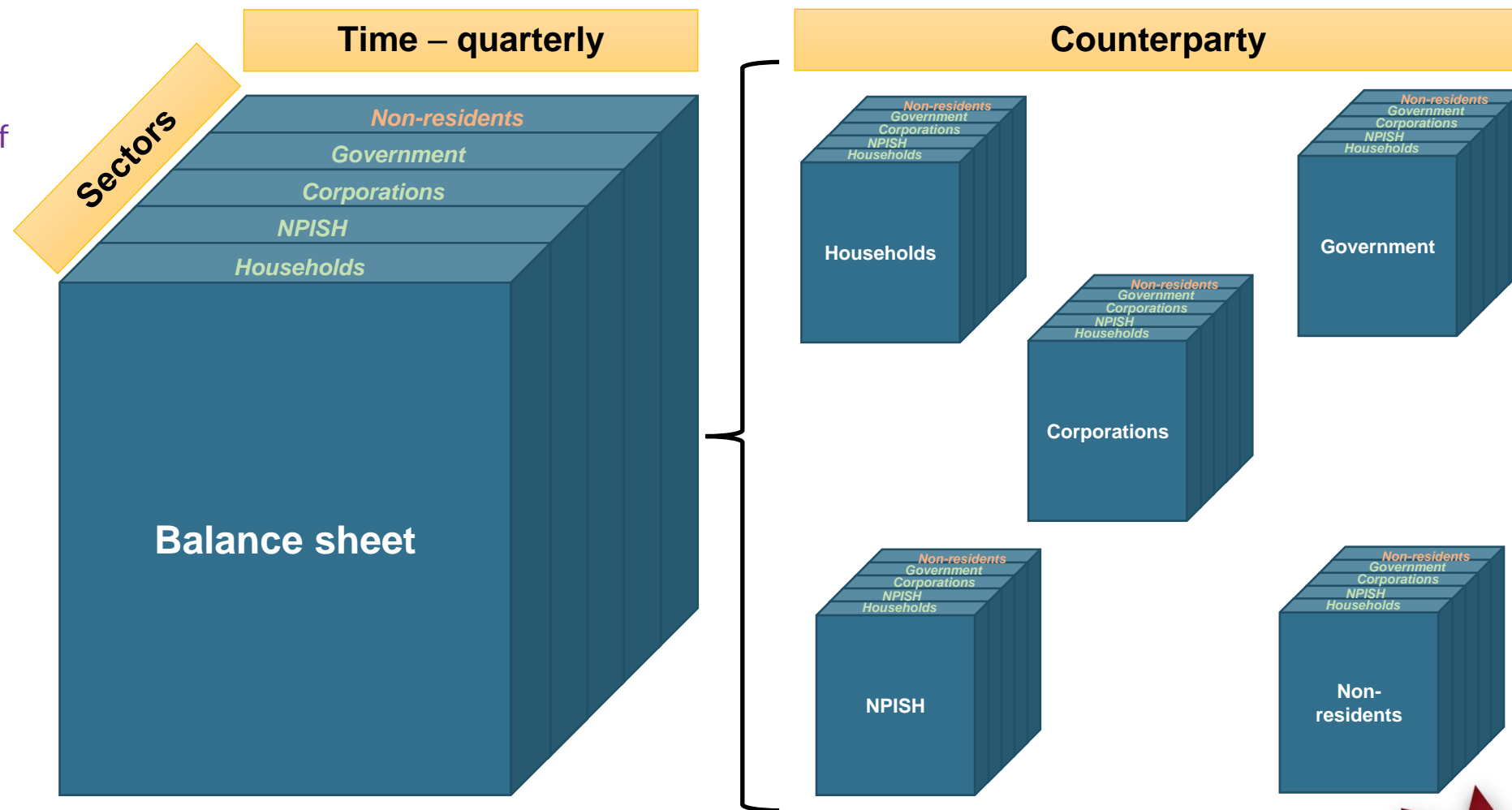
Financial Assets

- AF2 - Currency and deposits
- AF3 - Debt securities
- AF5 - Equity
- AF8 - Other assets

Financial Liabilities

- AF2 - Currency and deposits
- AF3 - Debt securities
- AF5 - Equity
- AF8 - Other assets

Net worth



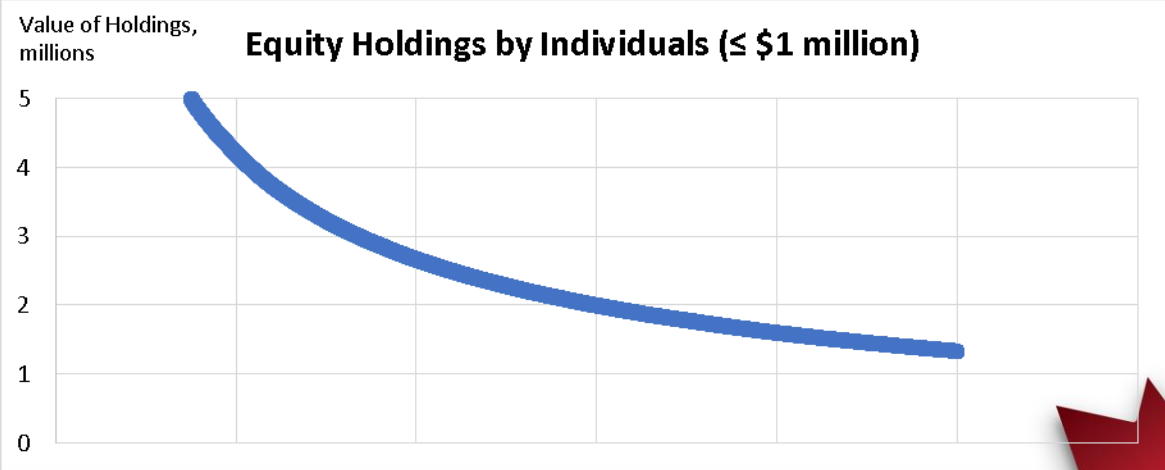
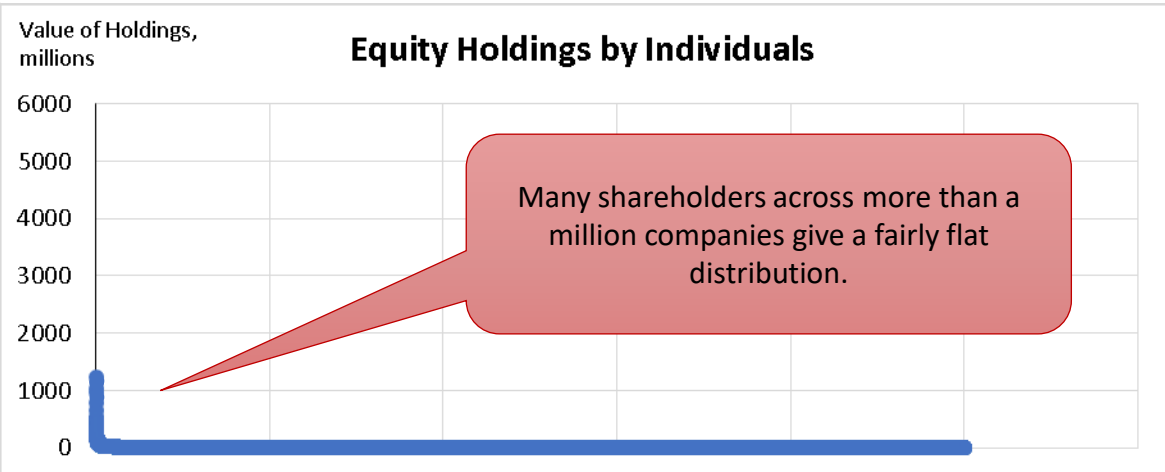
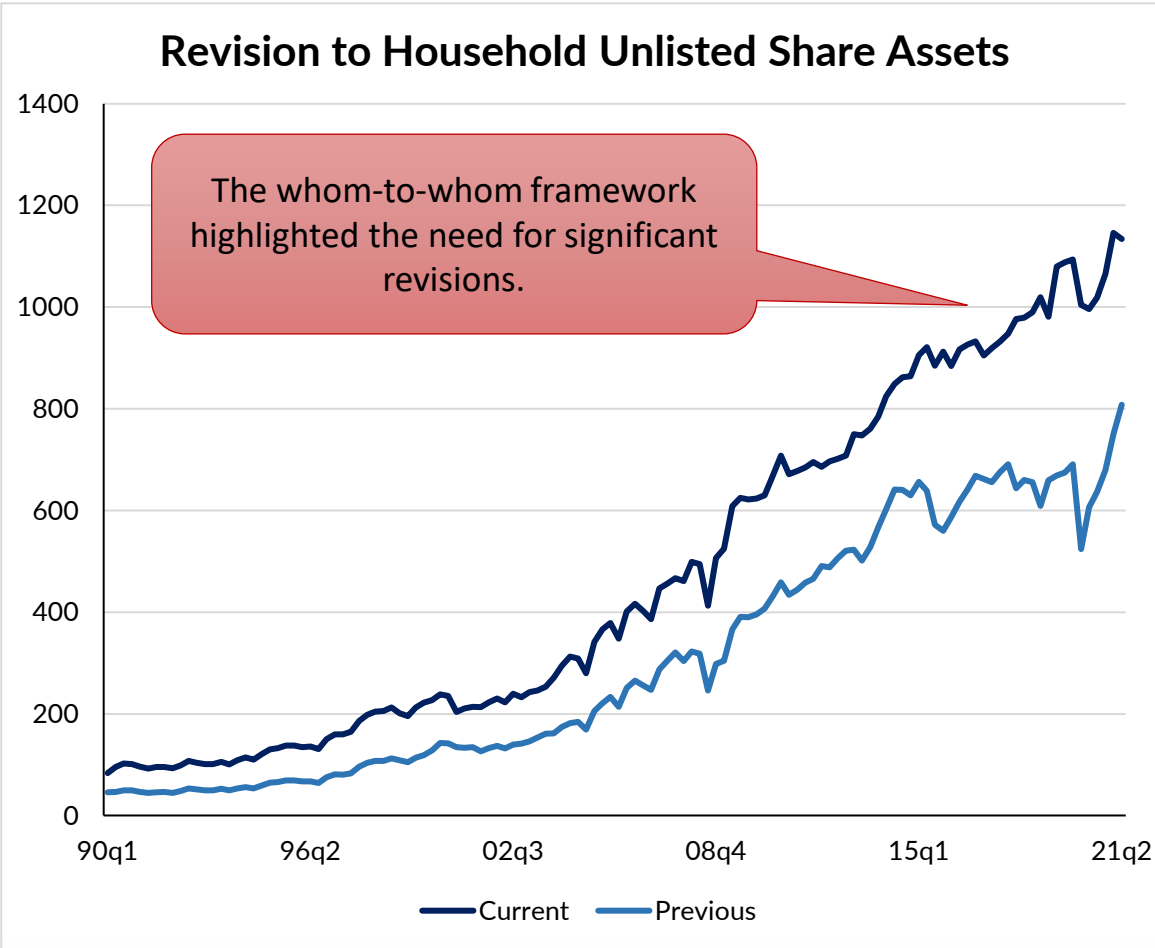
The from-whom-to-whom matrix

- The National Balance Sheet contains estimates along the edges of the matrix
- This establishes control totals for the assets and liabilities of each sector for a given financial instrument
- The from-whom-to-whom decomposes these totals into explicit counterparty estimates

Non-mortgage loans 2022Q3 \$ millions (at market value, unadjusted)		Sectors, creditor (assets)						
		Domestic economy (assets)	Non-financial corporations (assets)	Financial corporations (assets)	General government (assets)	Households (assets)	Non-profit institutions serving households (assets)	Non-residents (assets)
Sectors, debtor (liabilities)	Domestic economy(liabilities)	1,364,782	54,859	1,148,616	161,307			153,478
	Non-financial corporations(liabilities)	799,693	14,813	722,400	62,480			99,078
	Financial corporations(liabilities)	288,026	32,022	256,004	.			54,158
	General government(liabilities)	117,498	3,603	23,741	90,154			242
	Households(liabilities)	137,040	4,421	123,946	8,673			
	Non-profit institutions serving households(liabilities)	22,525		22,525				
	Non-residents(liabilities)	258,188	977	251,961	5,250			

From-whom-to-whom – Unlisted shares

- New methodology was developed to clearly and comprehensively link share issuers and shareholders using a variety of administrative data sources; findings were that households have much more wealth, at the expense of corporations

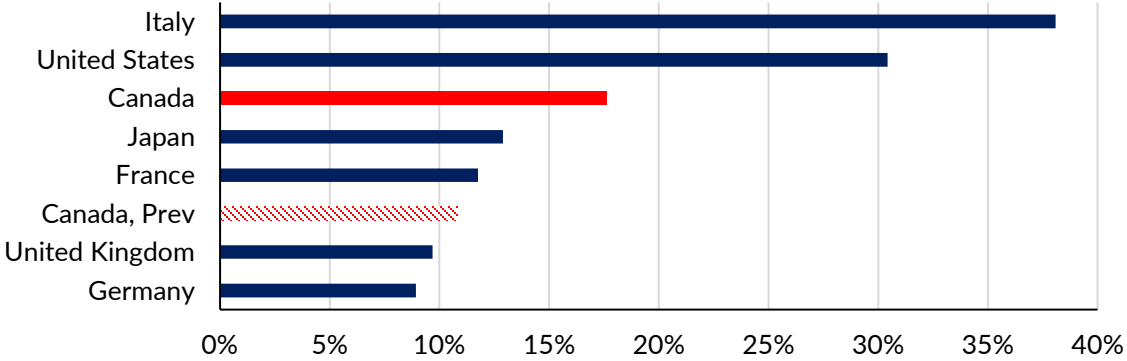


From-whom-to-whom – Household unlisted shares

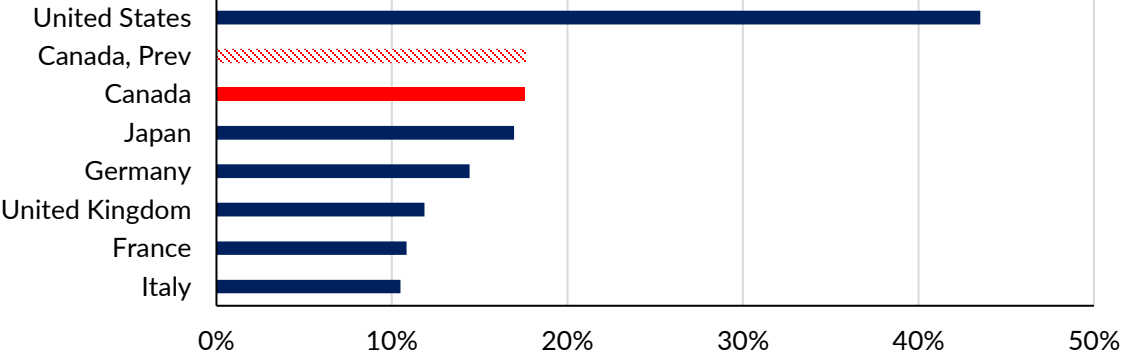
- Aggregate income and age characteristics; better capture top tail
- Revisions did not result in any notable inconsistencies with other countries

Income Group	\$80,000+															
Source	Age group	NL	PE	NS	NB	QC	ON	MB	SK	AB	BC	YT	NT/NU	CAN	SFS-CAN	
	All	0.6%	0.2%	0.8%	0.9%	20.8%	39.3%	2.7%	3.0%	15.8%	15.7%	0.1%	0.1%	100%	95.2%	
	<35 years	0.0%	0.0%	0.0%	0.0%	0.6%	1.3%	0.1%	0.1%	0.5%	0.6%	0.0%	0.0%	3.2%		
	35-64 years	0.4%	0.1%	0.6%	0.7%	14.0%	26.5%	1.8%	2.3%	11.0%	9.9%	0.1%	0.1%	67.6%		
	65+ years	0.1%	0.0%	0.2%	0.2%	6.2%	11.4%	0.8%	0.6%	4.3%	5.2%	0.0%	0.0%	29.2%		

Households % of Unlisted Equity, 2019



Households % of Listed Equity, 2019



FWTW Dissemination

- Too many data points for existing single data table solution
- Custom pivot table visualization created
- [Financial accounts on a from-whom-to-whom basis, selected financial instruments](#)



Financial accounts on a from-whom-to-whom basis

Selected financial instruments

Release date: December 21, 2018 | Updated on: December 12, 2022

Standard symbols | More information

Overview | Pivot table | Stocks and flows | Instruments | Sectors | Notes

Variables can be dragged to columns or rows of the table, or outside the table. Outside of the table, only one item of a variable can be selected.

Reset table | Transpose table | Copy data

Accounts: Closing balance sheet

Instruments: Non-mortgage loans

Periods: Q3 2022

Sectors, creditor (assets)

Sectors, debtor (liabilities)

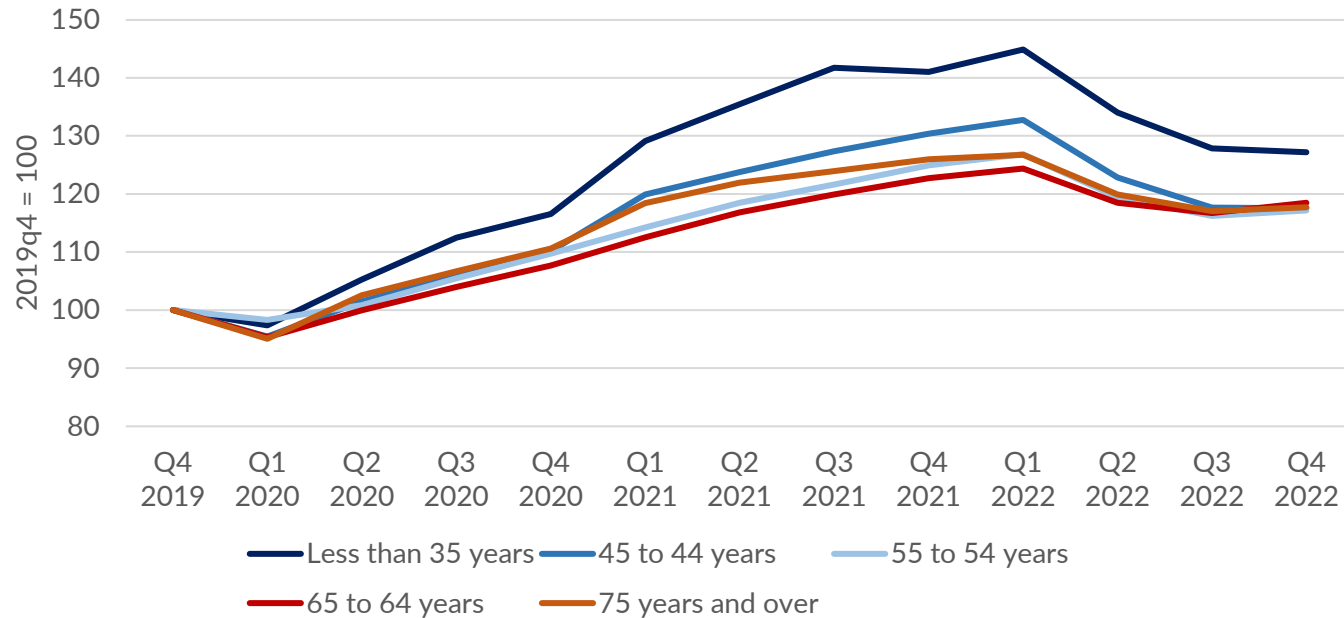
	Domestic economy	Non-financial corporations	Financial corporations	General government	Households	Non-profit institutions serving households	Non-residents
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Domestic economy	1,364,782	54,859	1,148,616	161,307	.	.	153,478
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Non-profit institutions serving households	22,525	.	22,525
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Distributions of Household Economic Accounts Wealth

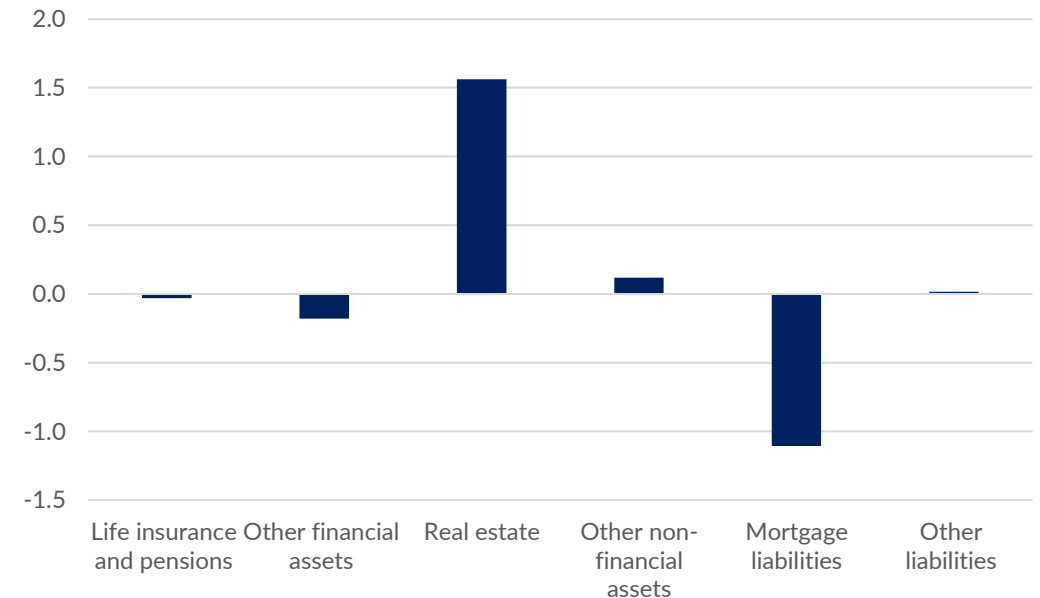


Net worth improved the most for younger households during the pandemic

Change in net worth by age group (2019q4 = 100)



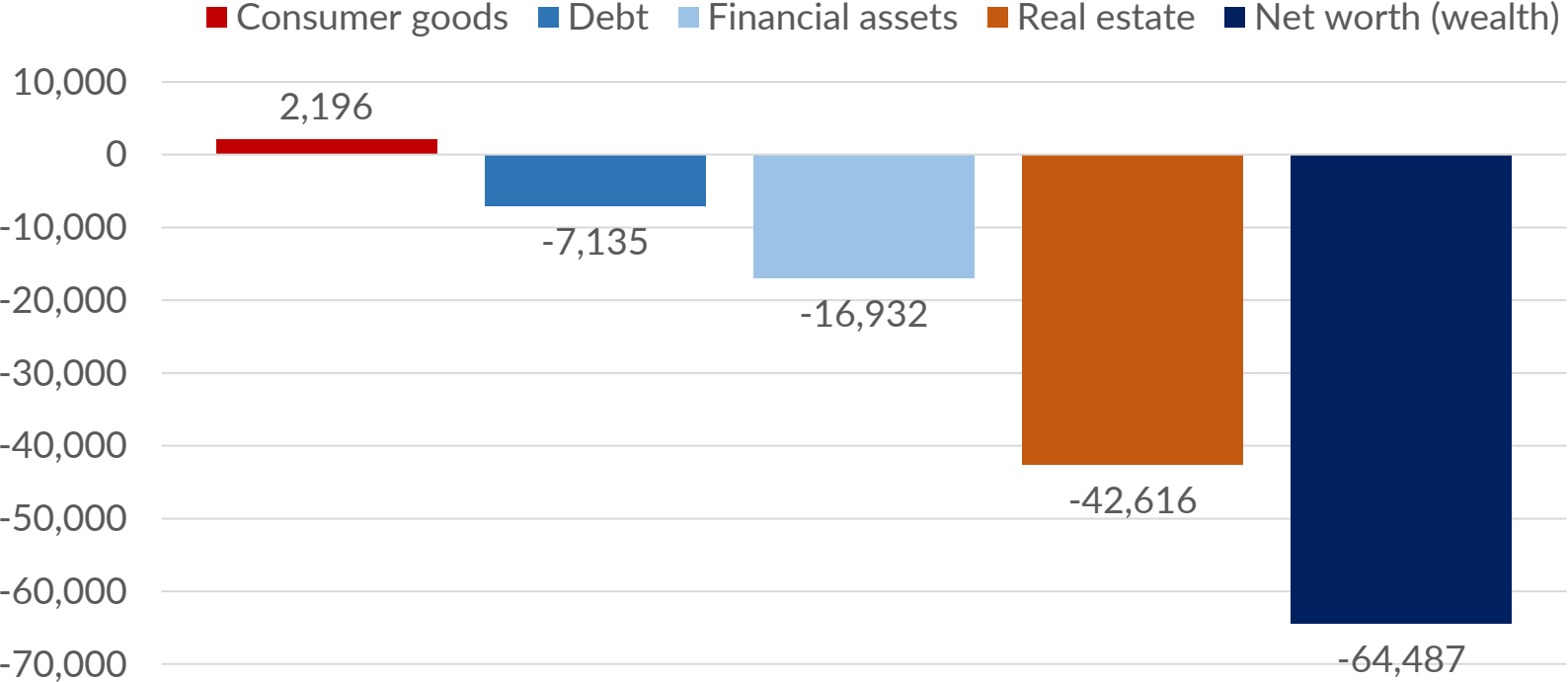
Contribution to change in net worth for households less than 35 years, 2021 relative to 2020



- Younger households saw most improvement in their net worth over the pandemic
- This was driven by new acquisition and increased valuation of real estate assets

Real estate pushes down net worth in 2022

Change in average household net worth , including contribution of each wealth component, fourth quarter 2022 relative to fourth quarter 2021

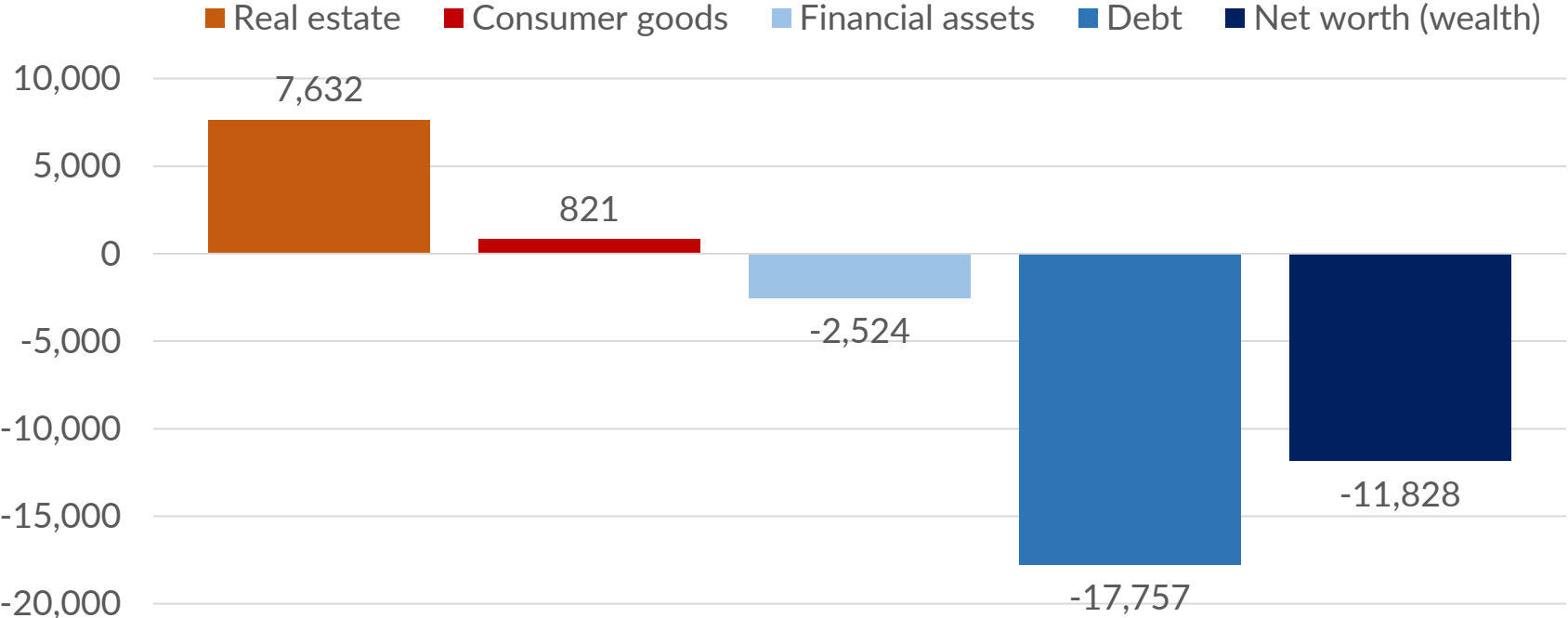


- Average wealth down 6.4% in 4th quarter of 2022 relative to a year earlier
- Real estate accounted for 66.1% of reduction in wealth
- Real estate values down 8.1% in 2022
- CREA House Price Index: 12.1% decline in 2022



Least wealthy see biggest declines in net worth as they accumulate more mortgage debt

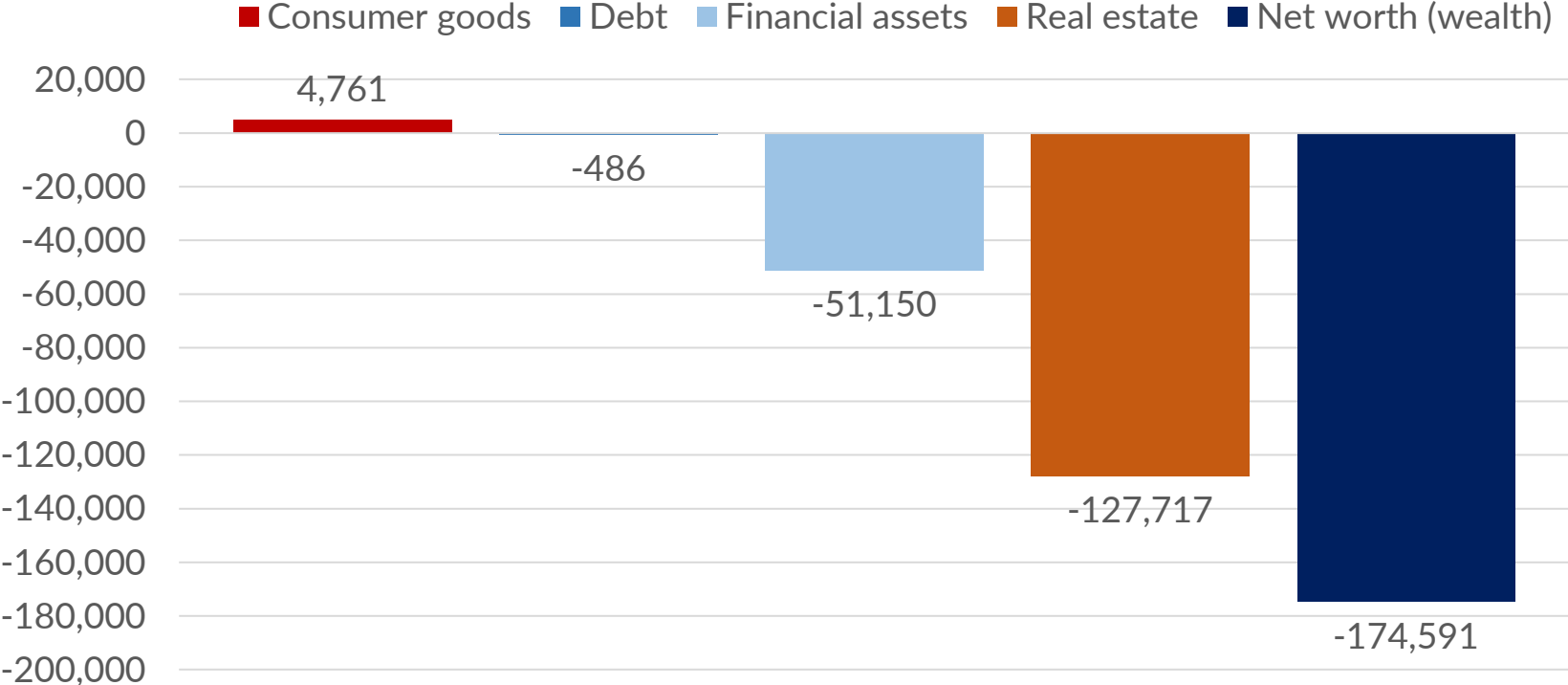
Change in average net worth for lowest two wealth quintiles, including contribution of each wealth component, fourth quarter 2022 relative to fourth quarter 2021



- Net worth declined most for least wealthy (-16.3%)
- Increased mortgage debt by +25.3% as they bought homes
- Despite home purchases, real estate holdings increased only +8.5%

Wealthiest households net worth down due to real estate and financial assets

Change in average net worth for highest wealth quintile, including contribution of each wealth component, fourth quarter 2022 relative to fourth quarter 2021

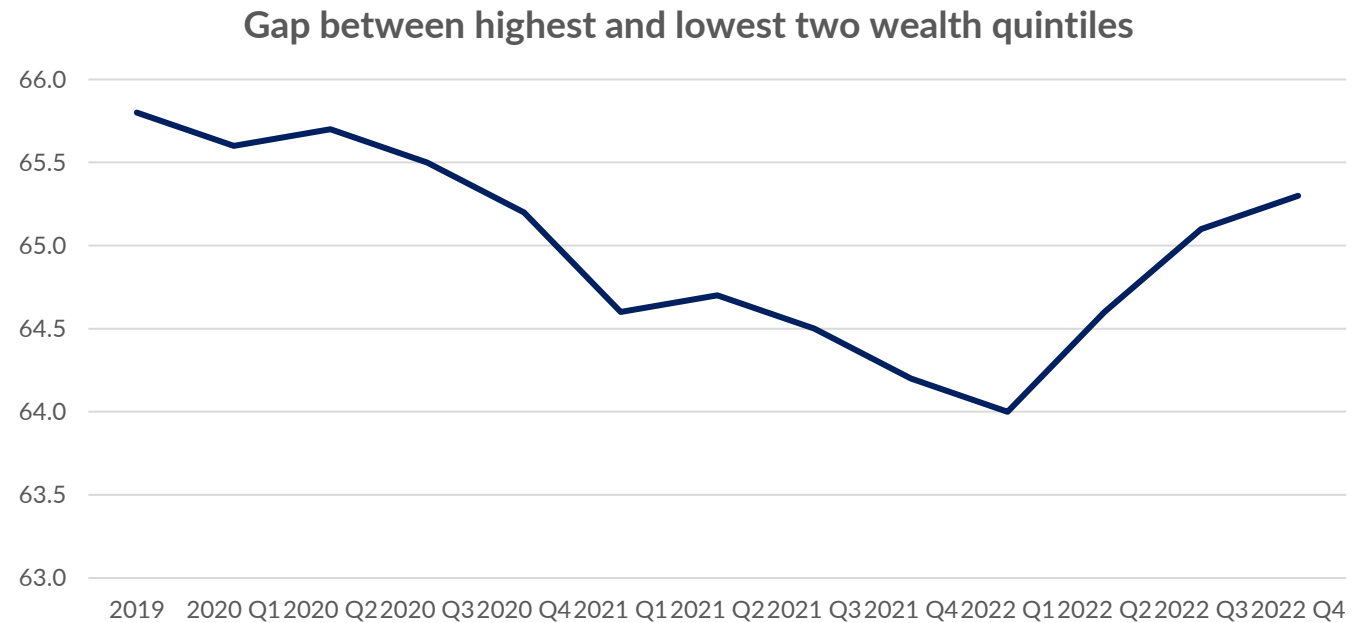


- Wealthiest households (top 20%) held more than two thirds (67.9%) of all net worth in Canada
- Decline of 5.2% for wealthiest
- Real estate was the largest contributor to the drop (-9.1%)
- Financial asset values also contribute to decline (-2.5%)

Wealth gap widens, but remains lower than before pandemic

- Gap in wealth declined by 1.6 p.p. from 65.8 at end of 2019 to 64.2 at end of 2021 (2 years in duration)
- Wealth gap increased by 1.1 p.p. to reach 65.3 by end of 2022 (1 year in duration)

Wealth quintile	2019 Q4	2020 Q4	2021 Q4	2022 Q4
	%			
Lowest two wealth quintiles	2.3	2.6	2.9	2.6
Third wealth quintile	9.1	9.2	9.5	9.2
Fourth wealth quintile	20.5	20.4	20.6	20.3
Highest wealth quintile	68.1	67.8	67.1	67.9
Gap between highest and lowest 2 wealth quintiles (percentage points)	65.8	65.2	64.2	65.3



Questions?

- [The Daily – Gross domestic product, income and expenditure, first quarter 2023 \(statcan.gc.ca\)](https://www.statcan.gc.ca)
- [The Daily – National balance sheet and financial flow accounts, first quarter 2023 \(statcan.gc.ca\)](https://www.statcan.gc.ca)
- [The Daily – Distributions of household economic accounts for income, consumption, saving and wealth of Canadian households, fourth quarter 2022 \(statcan.gc.ca\)](https://www.statcan.gc.ca)
- [Financial accounts on a from-whom-to-whom basis, selected financial instruments \(statcan.gc.ca\)](https://www.statcan.gc.ca)
- [The Daily – Monthly credit aggregates, March 2023 \(statcan.gc.ca\)](https://www.statcan.gc.ca)

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Assistant Director, National Economic Accounts

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