GFOAZ – 2023 Summer Conference

Financial and Legal Aspects of General Obligation Bonds and Bond Elections

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Table of Contents

Municipal Market Update

Section I

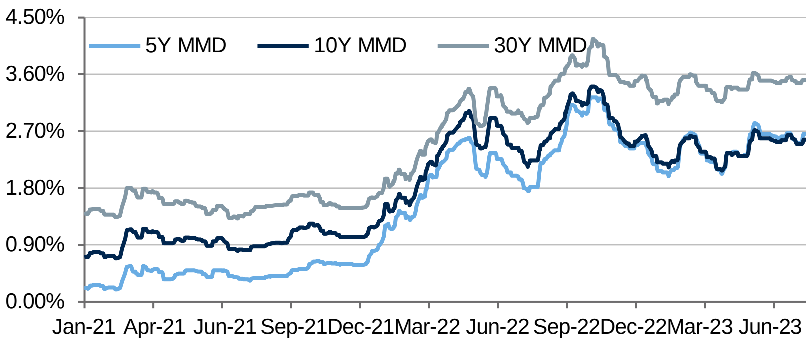
RBC Capital Markets - Municipal Markets Daily

July 31, 2023

MMD Change

Change in MMD

	7/31/2023	Daily Δ (bps)	Weekly Δ (bps)
3yr MMD	2.85	0	16
5yr MMD	2.66	0	14
7yr MMD	2.53	0	7
10yr MMD	2.57	0	7
30yr MMD	3.51	0	5



Market Commentary

- Tax-exempt benchmark yields remained unchanged across the curve.
- UST yields were little changed with no catalyst moving the market despite a $20BN corporate issuance calendar this week.
- All three equity indexes rose modestly heading into month-end as investors remained positive in their outlook on a soft landing.
- Municipal secondary trading was muted as traders focused on the week's large new issue calendar.
- Municipal Primary issuances struggled to gain traction as supply outweighed demand, particularly in Texas. Many deals saw concessions in an attempt to increase participation.
- MNI Chicago PMI came in at 42.8, lower than the estimate of 43.4 and higher than the 41.5 previously.
- EPFR reported $137MM of outflows with inflows seen only in Tax-Exempt Money Market funds.
- Supply for the week of 7/31 is projected to total $11.3BN with $9.6BN to be negotiated; taxables to account for 1.8% of the calendar.

U.S. Treasury Rates

Change in Treasuries

	7/31/2023	Daily Δ (bps)	Weekly Δ (bps)
3yr UST	4.51	-1	3
5yr UST	4.18	0	5
7yr UST	4.08	0	8
10yr UST	3.97	1	11
30yr UST	4.02	-1	10

Change in MMD/UST Ratio

	7/31/2023	Daily Δ (%)	Weekly Δ (%)
3yr Ratio	63%	0%	3%
5yr Ratio	64%	0%	3%
7yr Ratio	62%	0%	1%
10yr Ratio	65%	0%	0%
30yr Ratio	87%	0%	-1%

Sources: RBC Capital Markets, Bloomberg

Economic Calendar

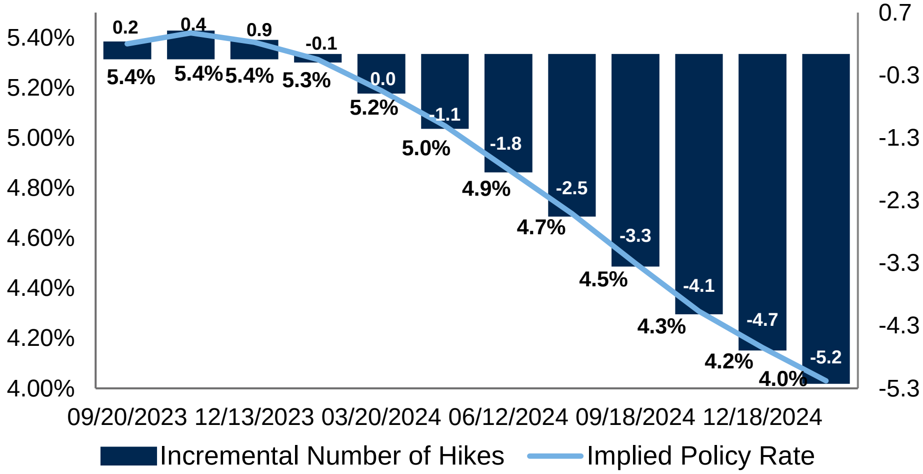
Monday	Tuesday	Wednesday	Thursday	Friday
Chicago PMI	PMI Manufacturing Index	Motor Vehicle Sales	Challenger Job-Cut Report	Employment Situation
Dallas Fed Manufacturing Survey	ISM Manufacturing Index	MBA Mortgage Applications	Jobless Claims	Baker Hughes Rig Count
	Construction Spending	ADP Employment Report	Productivity and Costs	
	JOLTS	Treasury Refunding Announcement	PMI Composite Final	
		EIA Petroleum Status Report	Factory Orders	
			ISM Services Index	
			EIA Natural Gas Report	
			Fed Balance Sheet	

Market Moving Indicators

MMD stands for Municipal Market Data; which is the daily index off of which all municipal bonds are priced.
Sources: RBC Capital Markets as of July 31, 2023, Refinitiv, Bloomberg, https://www.treasury.gov/resource-center, https://us.econoday.com/byweek.asp?cust=us

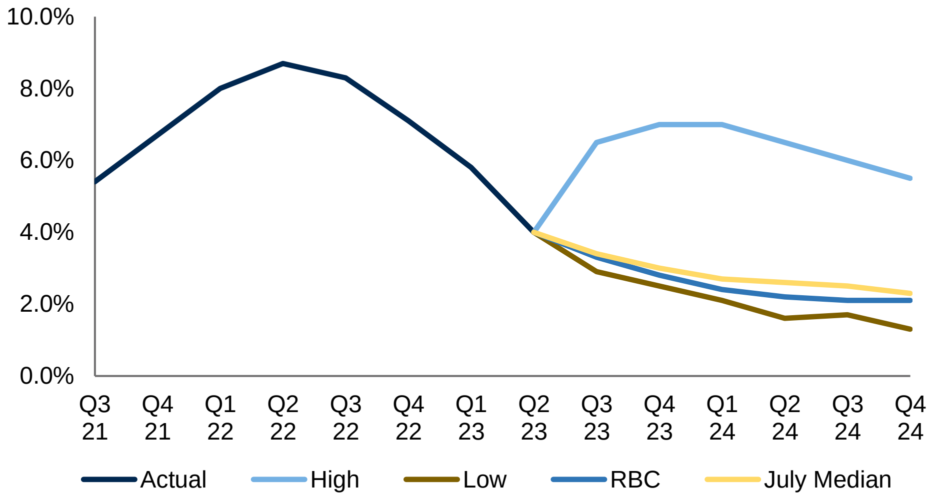
Bond Market Conditions Are Driven by Federal Reserve Policy, Inflation (CPI), and GDP Expectations

Futures Market – Fed Funds Rate Hike Probability
(Current Target Rate: 5.25% - 5.50%)



Source: Bloomberg, publicly traded securities as of market close July 28, 2023

Inflation / CPI Survey – Inflation Subsiding?

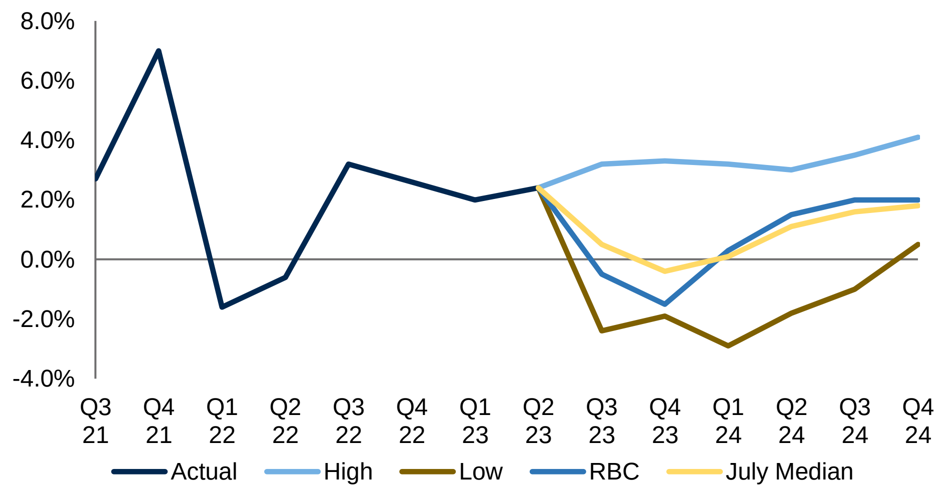


Source: Bloomberg, latest data for week ending July 28, 2023

Treasury & Equity Volatility – More on the Way?

Source: Bloomberg, latest data for week ending July 28, 2023

GDP – Economic Growth Estimates – Soft or Hard Landing?



Source: Bloomberg, latest data for week ending July 28, 2023

Interest Rate Forecasts – RBC Economics and Bloomberg Consensus

Anticipated market conditions through 2023

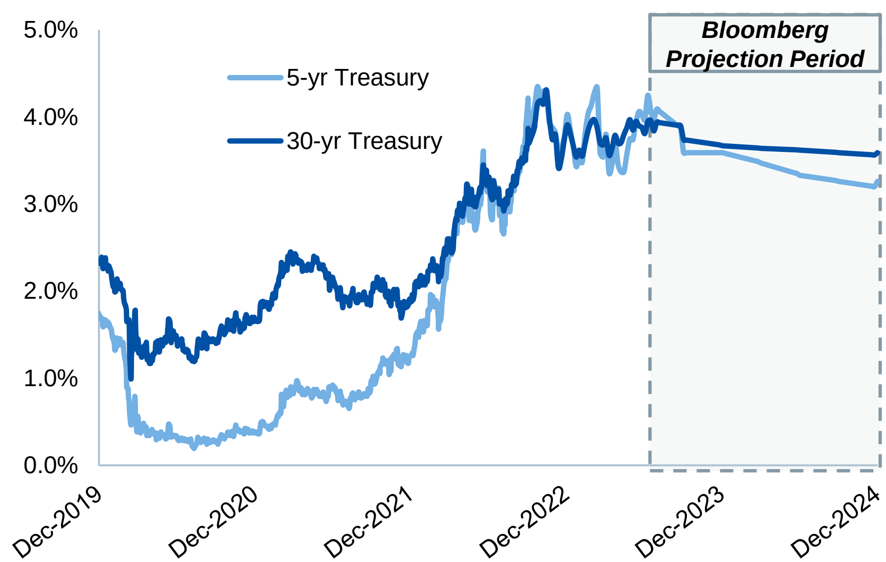
RBC Economics U.S. Interest Rate Forecast - July 2023

	Actual					Forecast						
End of Quarter	**22Q1**	**22Q2**	**22Q3**	**22Q4**	**23Q1**	**23Q2**	**23Q3**	**23Q4**	**24Q1**	**24Q2**	**24Q3**	**24Q4**
Fed funds	0.38	1.63	3.13	4.38	4.88	5.13	5.38	5.38	5.38	5.13	4.63	4.13
Three-month	0.52	1.72	3.33	4.42	4.85	5.43	5.36	5.28	5.23	4.93	4.43	3.93
Two-year	2.28	2.92	4.22	4.41	4.06	4.87	4.85	4.65	4.30	3.85	3.45	3.20
Five-year	2.42	3.01	4.06	3.99	3.60	4.13	4.20	4.10	3.90	3.65	3.45	3.35
10-year	2.32	2.98	3.83	3.88	3.48	3.81	3.95	3.90	3.75	3.60	3.45	3.40
30-year	2.44	3.14	3.79	3.97	3.67	3.85	4.00	3.95	3.90	3.85	3.80	3.80
Yield curve (10s-2s)	4	6	-39	-53	-58	-106	-90	-75	-55	-25	0	20

Bloomberg's Consensus Economic Interest Rate Forecast

Tenor	**Current**	**December 2023**	**Change**
Fed Funds Upper Bound	5.50%	5.50%	**0.00%**
3-Month SOFR	5.37%	5.32%	**-0.05%**
5-Year Treasury	4.15%	3.86%	**-0.29%**
10-Year Treasury	3.93%	3.64%	**-0.29%**
30-Year Treasury	4.00%	3.84%	**-0.16%**
10 to 30-yr Spread (bps)	7	20	**13**

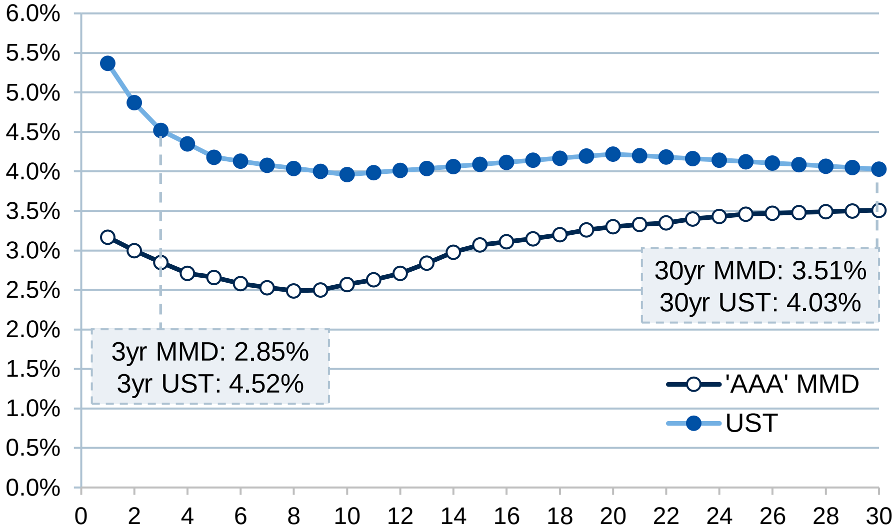
Historical and Bloomberg's Projected Treasury Yields



Sources: Bloomberg and RBC Capital Markets as of July 28, 2023, http://www.rbc.com/economics/

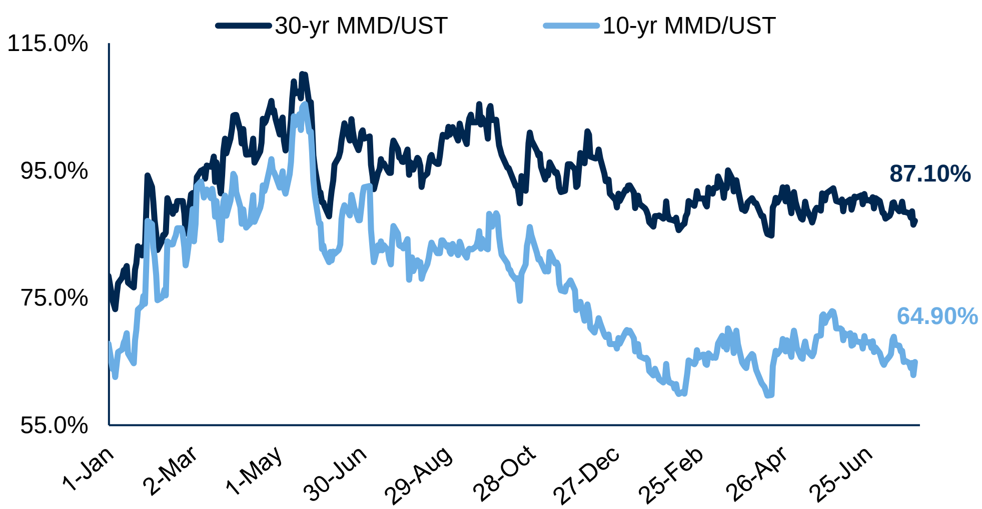
Current Taxable & Tax-Exempt Markets in Historical Context

U.S. Treasury & 'AAA' MMD Yield Curves

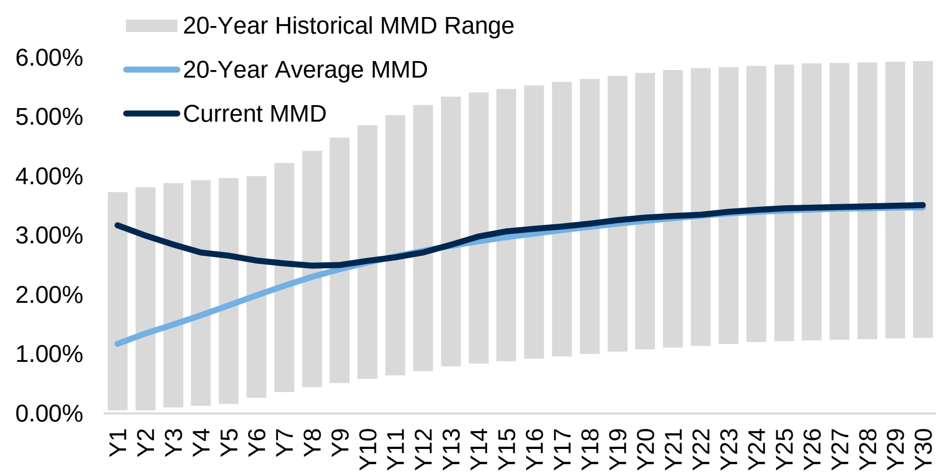


IG Corporate Bond Spreads (Proxy for Taxable Municipal Bonds)

10 & 30 Year MMD & UST Ratios



MMD Curves – 20-Year Historical Range



Source: Bloomberg as of July 28, 2023

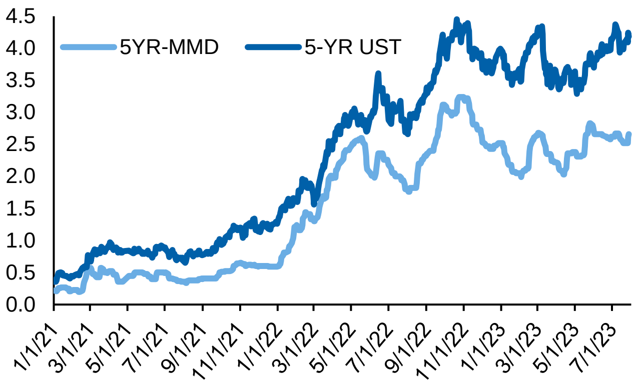
Tax-Exempt and Taxable Yields Moving Higher, Though Remain Relatively Low Versus Historicals

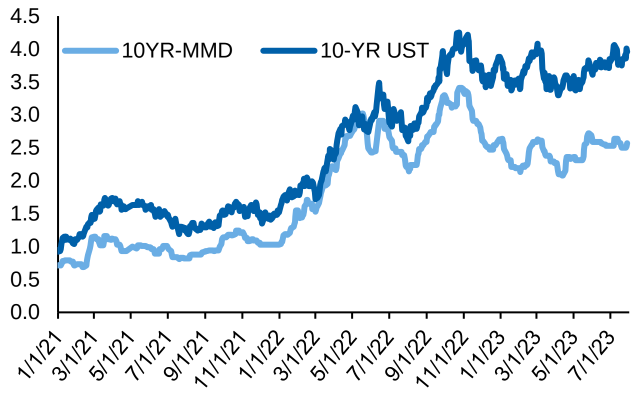
Relative Performance of Municipals Versus Treasuries

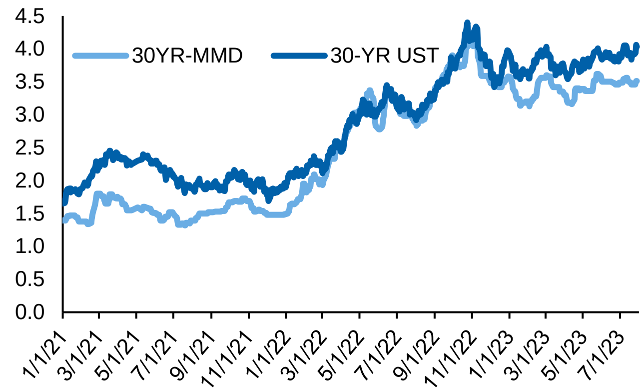
MMD	01/03/2022	07/28/2023	Δ (bps)
3yr MMD	0.36%	2.85%	**249**
5yr MMD	0.60%	2.66%	**206**
7yr MMD	0.87%	2.53%	**166**
10yr MMD	1.04%	2.57%	**153**
30yr MMD	1.50%	3.51%	**201**

UST	01/03/2022	07/28/2023	Δ (bps)
3yr UST	1.04%	4.52%	**348**
5yr UST	1.37%	4.18%	**281**
7yr UST	1.55%	4.08%	**253**
10yr UST	1.63%	3.96%	**233**
30yr UST	2.01%	4.03%	**202**

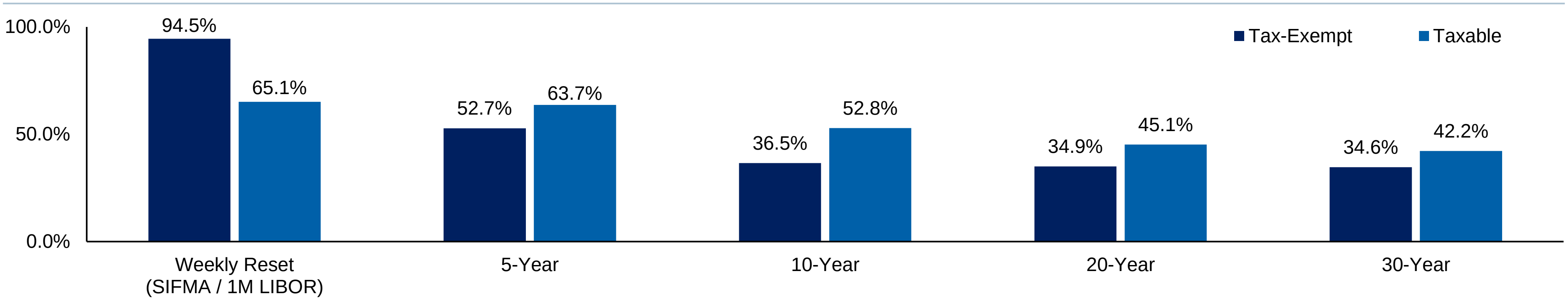
MMD / UST Ratio	01/03/2022	07/28/2023	Δ (%)
3yr Ratio	35%	63%	**28%**
5yr Ratio	44%	64%	**20%**
7yr Ratio	56%	62%	**6%**
10yr Ratio	64%	65%	**1%**
30yr Ratio	75%	87%	**12%**







Relative Value by Maturity Length: % of Time Rates Have Been Lower Over Past 30 Years

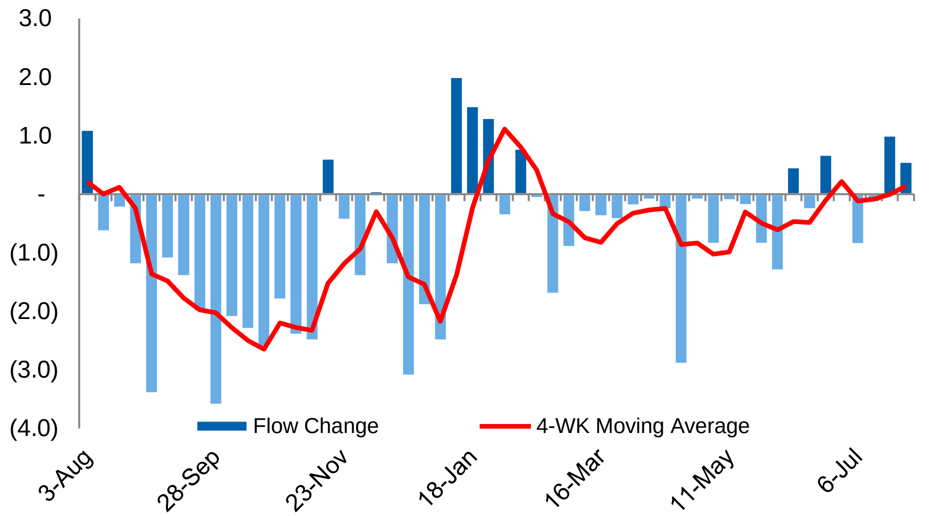


Sources: Bloomberg; Thomson Financial Municipal Market Monitor (TM3); RBC Capital Markets July 28, 2023

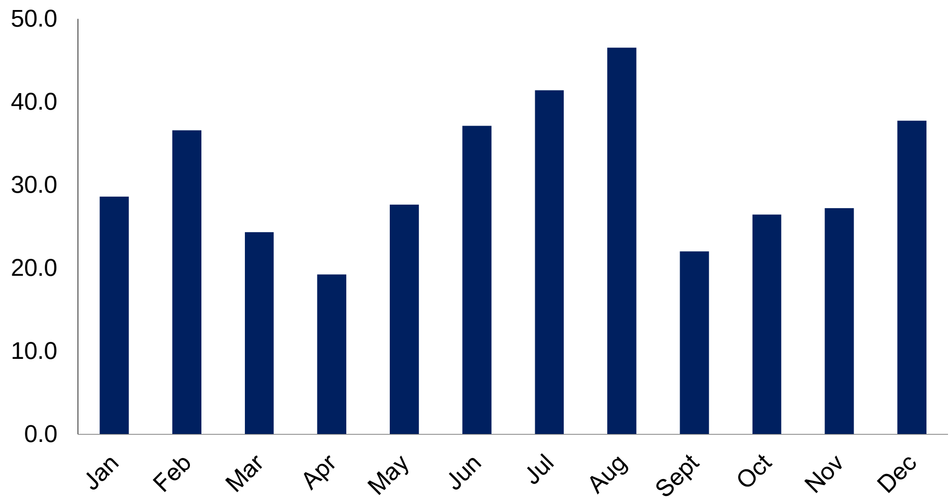
Municipal Market Themes – Bond Fund Flows and Supply Factors

Consistent outflows, persistent inflation pressures and tightening monetary policy have driven volatility

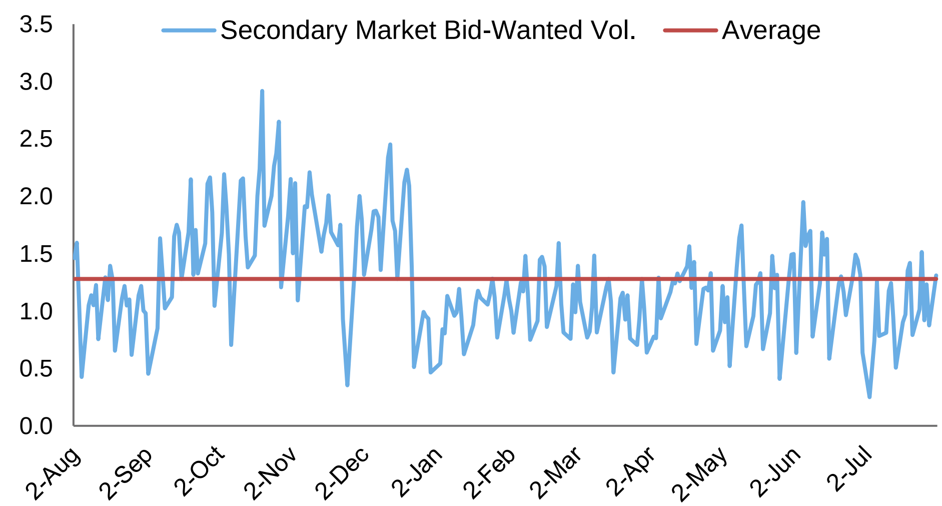
Weekly Municipal Bond Fund Flows ($ billions)



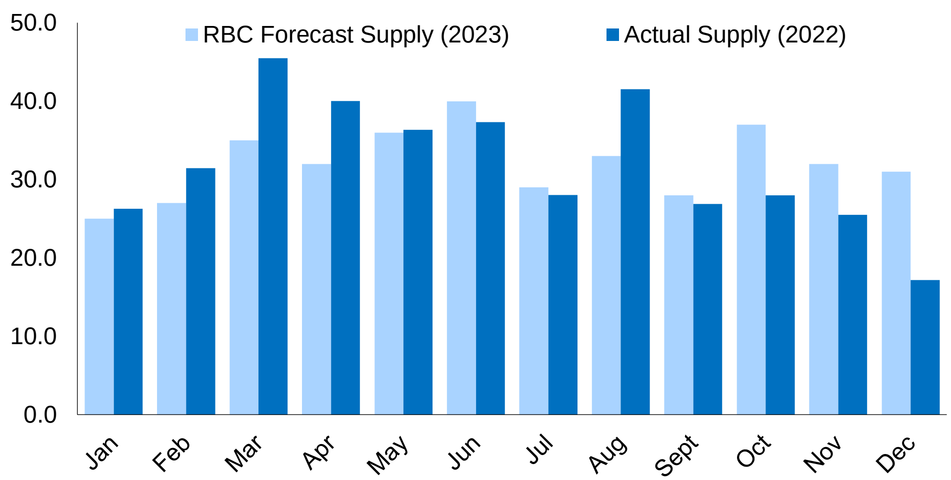
2023 Redemptions ($ billions)



Municipal Bid-Wanted ($ billions)



Actual 2022 Supply and Forecasted 2023 Supply ($ billions)



Source: Bloomberg as of July 28, 2023; Lipper for the week ended July 27, 2023

Financial Aspects of General Obligation Bonds

Section II

General Obligation (GO) Bonds

Security

- Full faith and credit bonds
- Secured by unlimited property tax pledge against all taxable property of the Political Subdivision (City, Town, Special District, etc.)
- Debt service is payable from property taxes but may also be paid from other revenue sources

Legal Limitations

- Subject to authorization from voters through a bond election
- Issued amount is limited to the lesser:
  - For certain projects – 20% of Net Assessed Full Cash Value ("FCV"); all other projects – 6% of Net FCV
  - Maximum amount of voter authorization
- Requires adoption of authorizing resolution by the Board / Council

Use of Proceeds

- Capital outlay including:
  - Construction of new facilities
  - Land acquisition
  - Purchase of equipment
- Certain costs of issuance
  - Bond Counsel fees
  - Financial Advisor fees
  - Bond Registrar and Paying Agent fees
  - Costs of printing offering document

Property Taxes

The Political Subdivision will be required by law to levy property tax on all taxable property within its boundaries sufficient to pay principal and interest due on its outstanding general obligation bonds

Taxable Property

- Either valued by the County Assessor or by the Arizona Department of Revenue
- Property valued by the County Assessor is referred to as "locally assessed" property
  - Includes residential, agricultural, commercial and industrial property
- Property valued by the Arizona Department of Revenue is referred to as "centrally valued" property and includes property:
  - Used in the business of patented or unpatented producing mines, mills and smelters
  - Producing oil, gas and geothermal interests
  - Used for operation of telephone, telegraph, gas, water and electric utilities
  - Aircraft regularly scheduled and operated by an aircraft company
  - Standing timber
  - Pipelines
  - Personal property, except mobile homes

Secondary Taxes

- Levied for payment of:
  - Debt service on general obligation bonds
  - Maintenance and operation of special purpose districts
- Levied against Net Assessed Limited Property Value (Net LPV)
- No constitutional or statutory limitation on annual levies for voter-approved indebtedness and overrides

Source: Arizona Department of Revenue

Assessed Values

Locally assessed property is assigned two values, Full Cash Value and Limited Property Value. Centrally valued property is assigned only one value, Full Cash Value

Limited Property Value

- Property value determined pursuant to the Arizona Constitution and Arizona Revised Statutes
- For local assessed property in existence in the prior year that did not undergo modification through construction, destruction, split or change in use, Limited Property Value is equal to the lesser of:
  - the Full Cash Value of the property; or
  - an amount five percent greater than the Limited Property Value of such property determined for the prior year
- For centrally valued property, Limited Property Value is equal to the Full Cash Value.
- Net Assessed Limited Property Value (Net LPV) is used to calculate taxes levied

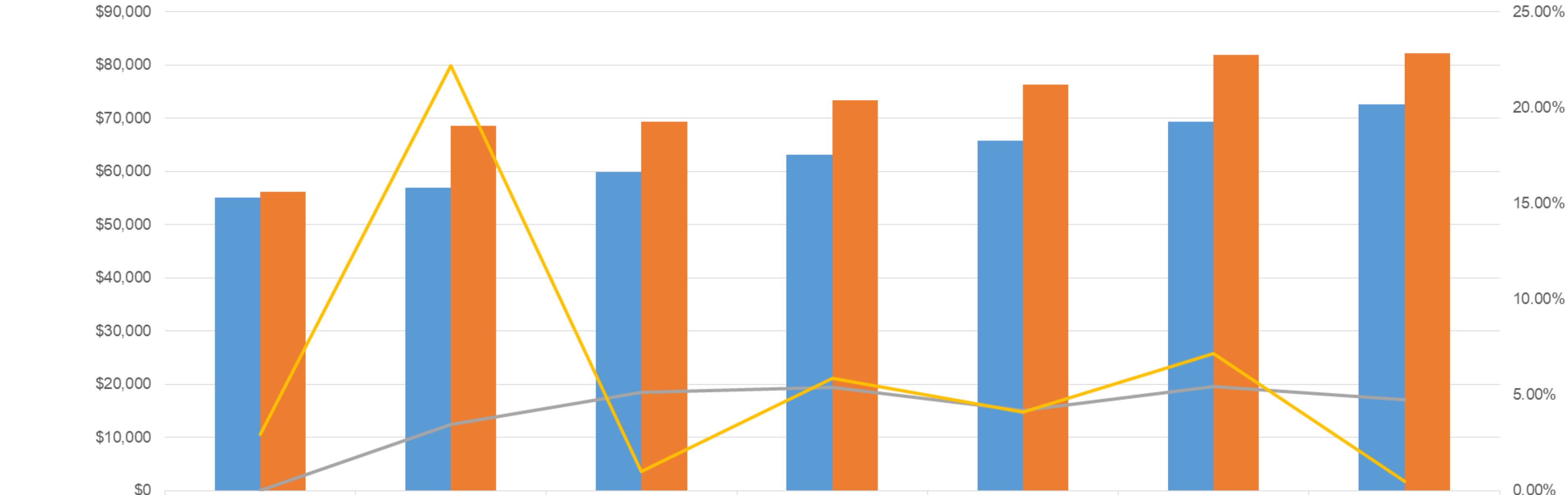
Full Cash Value

- Statutorily defined to mean “that value determined as prescribed by statute” or if no statutory method is prescribed it is “synonymous with market value.”
- There is no limit on the growth of Full Cash Value.
- Used as the ceiling for determining Limited Property Value
- Net Assessed Full Cash Value (Net FCV) is used to calculate debt capacity

Source: Arizona Department of Revenue

Example – Assessed Valuation ($000s) and GO Bonding Capacity

The Political Subdivision's Limited Property Value is $72.663 million, with the Net Full Cash Value at $82.249 million.



	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Net LPV	$55,103	$57,006	$59,925	$63,161	$65,810	$69,383	$72,663
Net FCV	$56,183	$68,650	$69,340	$73,416	$76,410	$81,865	$82,249
% Change LPV	0	3.45%	5.12%	5.40%	4.19%	5.43%	4.73%
% Change FCV	2.94%	22.19%	1.01%	5.88%	4.08%	7.14%	0.47%

Source: *State and County Abstract of Assessment Roll*, State of Arizona Department of Revenue.

Political Subdivision's GO Bonds are subject to Constitutional Debt Limits:

- For water, sewer, light, parks and open spaces, transportation, and public safety purposes – GO debt many not exceed 20% Net FCV
- For all other purposes, GO debt may not exceed 6% Net FCV

Constiutional Debt Limit

Net FCV	**$**	**82,249,000**
20% Limit	$	16,449,800
6% Limit	$	4,934,940

Sources: Abstract of Tax Roll, Arizona Department of Revenue, Constitution of the State of Arizona

Example – Estimated GO Bond Impact on the Political Subdivision's Secondary Tax Rate

		Scenario 1 - 20-year Amortization				Scenario 2 - 25-year Amortization			
Fiscal Year	Assessed Valuation (a)	Sale Date 04/05/2023	Estimated Interest (b)	Debt Service	Program Tax Rate	Sale Date 04/05/2023	Estimated Interest (b)	Debt Service	Program Tax Rate
2021 - 22	72,663,063								
2022 - 23	74,842,955								
2023 - 24	77,088,244	$135,000	$123,889	$258,889	$0.3358	$90,000	$136,278	$226,278	$0.2935
2024 - 25	79,400,891	160,000	96,625	256,625	0.3232	120,000	107,525	227,525	0.2866
2025 - 26	81,782,918	165,000	92,625	257,625	0.3150	120,000	104,225	224,225	0.2742
2026 - 27	84,236,405	170,000	88,500	258,500	0.3069	125,000	100,925	225,925	0.2682
2027 - 28	84,657,587	175,000	84,250	259,250	0.3062	125,000	97,488	222,488	0.2628
2028 - 29	85,080,875	180,000	79,875	259,875	0.3054	130,000	94,050	224,050	0.2633
2029 - 30	85,506,279	185,000	75,375	260,375	0.3045	135,000	90,475	225,475	0.2637
2030 - 31	85,933,811	190,000	70,750	260,750	0.3034	140,000	86,763	226,763	0.2639
2031 - 32	86,363,480	190,000	66,000	256,000	0.2964	140,000	82,913	222,913	0.2581
2032 - 33	86,795,297	195,000	61,250	256,250	0.2952	145,000	79,063	224,063	0.2582
2033 - 34	87,229,274	200,000	56,375	256,375	0.2939	150,000	75,075	225,075	0.2580
2034 - 35	87,665,420	205,000	51,375	256,375	0.2924	155,000	70,950	225,950	0.2577
2035 - 36	88,103,747	210,000	46,250	256,250	0.2909	160,000	66,688	226,688	0.2573
2036 - 37	88,544,266	215,000	41,000	256,000	0.2891	165,000	62,288	227,288	0.2567
2037 - 38	88,986,987	225,000	35,625	260,625	0.2929	165,000	57,750	222,750	0.2503
2038 - 39	89,431,922	230,000	30,000	260,000	0.2907	170,000	53,213	223,213	0.2496
2039 - 40	89,879,082	235,000	24,250	259,250	0.2884	175,000	48,538	223,538	0.2487
2040 - 41	90,328,477	240,000	18,375	258,375	0.2860	180,000	43,725	223,725	0.2477
2041 - 42	90,780,120	245,000	12,375	257,375	0.2835	185,000	38,775	223,775	0.2465
2042 - 43	91,234,020	250,000	6,250	256,250	0.2809	190,000	33,688	223,688	0.2452
2043 - 44	91,234,020	-	-	-	-	195,000	28,463	223,463	0.2449
2044 - 45	91,234,020	-	-	-	-	200,000	23,100	223,100	0.2445
2045 - 46	91,234,020	-	-	-	-	205,000	17,600	222,600	0.2440
2046 - 47	91,234,020	-	-	-	-	215,000	11,963	226,963	0.2488
2047 - 48	94,427,211	-	-	-	-	220,000	6,050	226,050	0.2394
Totals		**$ 4,000,000**	**$ 1,161,014**	**$ 5,161,014**		**$ 4,000,000**	**$ 1,617,565**	**$ 5,617,565**	

NOTES:

(a) Net Assessed Limited Property Value for 2021-22 is actual. Values are assumed to grow 3.00% for fiscal years 2022-23 through 2026-27 and 0.5% thereafter.
(b) Assumed interest rate for Scenario 1 is 2.50% and for Scenario 2 is 2.75%.

Source: RBC Capital Markets

Example – Estimated Bond Issue Cost to Taxpayers

SCENARIO 1 - 20-YEAR AMORTIZATION

RESIDENTIAL PROPERTY
(Assessed at 10% of value)

Value for Tax Purposes (a)	Assessed Value	Estimated Average Annual Cost $0.2990 Increase (b)	Estimated Average Monthly Cost $0.2990 Increase (b)
$ 250,000	$ 25,000	$ 74.76	$ 6.23

The tax impact over the term of the bonds on an owner-occupied residence valued by the County Assessor at $250,000 is estimated to be $74.76 per year for 20 years, or $1,495.20 total cost.

COMMERCIAL & INDUSTRIAL PROPERTY
(Assessed at 18% of full cash value)

Assessors Full Cash Value (a)	Assessed Value	Estimated Average Annual Cost $0.2990 Increase (b)	Estimated Average Monthly Cost $0.2990 Increase (b)
$ 1,000,000	$180,000	$ 538.29	$ 44.86

The tax impact over the term of the bonds on commercial property valued by the County Assessor at $1,000,000 is estimated to be $538.29 per year for 20 years, or $10,765.80 total cost.

AGRICULTURAL OR OTHER VACANT PROPERTY
(Assessed at 15% of full cash value)

Assessors Full Cash Value (a)	Assessed Value	Estimated Average Annual Cost $0.2990 Increase (b)	Estimated Average Monthly Cost $0.2990 Increase (b)
$ 100,000	$ 15,000	$ 44.86	$ 3.74

The tax impact over the term of the bonds on agricultural or other vacant property valued by the County Assessor at $100,000 is estimated to be $44.86 per year for 20 years, or $897.20 total cost.

SCENARIO 2 - 25-YEAR AMORTIZATION

RESIDENTIAL PROPERTY
(Assessed at 10% of value)

Value for Tax Purposes (a)	Assessed Value	Estimated Average Annual Cost $0.2573 Increase (b)	Estimated Average Monthly Cost $0.2573 Increase (b)
$ 250,000	$ 25,000	$ 64.32	$ 5.36

The tax impact over the term of the bonds on an owner-occupied residence valued by the County Assessor at $250,000 is estimated to be $64.32 per year for 25 years, or $1,608.00 total cost.

COMMERCIAL & INDUSTRIAL PROPERTY
(Assessed at 18% of full cash value)

Assessors Full Cash Value (a)	Assessed Value	Estimated Average Annual Cost $0.2573 Increase (b)	Estimated Average Monthly Cost $0.2573 Increase (b)
$ 1,000,000	$180,000	$463.09	$ 38.59

The tax impact over the term of the bonds on commercial property valued by the County Assessor at $1,000,000 is estimated to be $463.09 per year for 25 years, or $11,577.25 total cost.

AGRICULTURAL OR OTHER VACANT PROPERTY
(Assessed at 15% of full cash value)

Assessors Full Cash Value (a)	Assessed Value	Estimated Average Annual Cost $0.2573 Increase (b)	Estimated Average Monthly Cost $0.2573 Increase (b)
$ 100,000	$ 15,000	$ 38.59	$ 3.22

The tax impact over the term of the bonds on agricultural or other vacant property valued by the County Assessor at $100,000 is estimated to be $38.59 per year for 25 years, or $964.75 total cost.

Source: RBC Capital Markets

Legal Aspects of General Obligation Bonds & Bond Elections

Section II

Overview

- Background on Arizona Election Laws and Process
- Voter Information Pamphlets
- Overview of General Obligation Bond Ballot Questions
- Government Resources Influencing the Outcome of an election

Background on Arizona Election Laws and Process

Why Do We Need An Election?

- Bond elections authorize the City to borrow money for approved capital projects and are the foundation that bond counsel relies upon to issue an unqualified opinion that the bonds have been duly and validly issued
- Required by Title 35 of A.R.S.

G.O. Bond Elections

- Bonds Secured by ad valorem taxes
- Order of the election by the political subdivision governing body (i.e. City Council) or petition signed by 15% of the qualified electors
- Transaction costs may come from authorized amount, but bond election expenses to be paid from current operating funds only
- Notice of election per A.R.S. 9-812 and 39-204
- Election held at the regular voting places on the first Tuesday following the first Monday in November
- Voter Information Pamphlet is required
- Ballot form must include certain language – for example, “the issuance of these bonds will result in a property tax increase…”
- Authorization does not expire

Source: Arizona Revised Statutes

Voter Informational Pamphlet

Legal Statues of the Voter Informational Pamphlet (“VIP”).

- A.R.S. Section 35-454 requires that the purposes be listed in the VIP and limits the use of bond proceeds to the purposes stated
- The purposes set out in the VIP may be different (more expansive) than the language in the ballot
- Must conform to statutory requirements

Requirements.

- A.R.S. Section 35-454. Not less than 35 days before the election, mail to every household with a registered voter
- Sherman v. Tempe – before the election means before early voting begins

Substantive Content Requirements

- Amount of Bonds
- Maximum Interest Rate
- Estimated Debt Service Schedule for Current Outstanding Bonds
- Estimated Debt Service Schedule for Proposed Bonds
  - Limits on assessed value growth assumptions
- Source of repayment
- Estimated issuance costs
- Estimated tax impact on certain types of properties
  - Residential ($250,000)
  - Commercial ($1,000,000)
  - Agricultural/Vacant ($100,000)
- Estimated total cost (including P&I) – **bold** font
- Current outstanding GO debt and Constitutional limitation

Source: Arizona Revised Statutes

Voter Informational Pamphlet

Substantive Content Requirements (cont'd)

- Projects and expenditures for which the bonds are to be issued
- Polling location for the addressee
- Hours during which polls will be open
- Pro/con arguments

Regarding the Pro/Con Arguments:

- Governing body must set deadlines to submit at a public meeting
- Publish deadline (doesn't say how to publish, so use the standard found in A.R.S. 39-204)
- Governing Body's argument should be approved by the governing body (AG Opinion I08-005)
- Political subdivision may charge a fee for arguments if it has some statutory authority to do so (initiative statutes)
- <u>Overly gratuitous additions in the VIP, such as "Purpose" or "Why this Election was called" must be carefully reviewed</u>

Additional Details

- Within 30 days after election, submit copy of the VIP to the Department of Revenue
- All written voter information must state the tax rate necessary to support the bonds (A.R.S. 35-454.C.)
- VIP typically has more detail than the Ballot and it is in the VIP where you can "explain" things and go into more detail
- Bond Committee members and Council / Board members can draft statements in favor of the referendum

Source: Arizona Revised Statutes

Preparing the Ballot Question

Scope of Questions

- The law prohibits “log rolling.”
- Typically, there is no log rolling if there is a common nexus among the items presented and the law has not divided the issues in other contexts.
- Combining multiple purposes can be considered log rolling.
- Not an exact science.

Purposes vs. Projects.

- Must be broad enough in scope to cover all expenditures expected to be made.
- Need enough specificity so the voter can’t claim “fraud in the inducement”
- Examples, construct vs. improve; expand vs. renovate; equipment; financial costs; lease and acquire

Dollar sizing.

- Construction estimate
- Inflation
- Incidentals

Amount authorized may exceed the current debt capacity

Ballot form must include certain language – for example, “the issuance of these bonds will result in a property tax increase…”

Source: Arizona Revised Statutes

Government Resources Influencing the Outcome of an Election

Objective test, not based on the subjective state of mind of the actor

- The prohibition applies before a measure qualifies for the ballot
- The legal test is do the activities unambiguously urge a person to vote in a particular manner
- City resources cannot be used for advocacy
- Staff can volunteer time but cannot be compelled to work on campaign or work on campaign on the clock

Impartial, content neutral information has been allowed, but the courts will look to the style, tenor and timing of the activity

Normal non-partisan "get out to vote or register" activities are permitted

- 2000 and 2004 Attorney General Opinion allows the answering of frequently asked questions and an analysis of the financial impact of the ballot measure
- Can't have pictures of town's police cars, etc. - in 'vote yes' campaign material

State and federal prosecution possible if government funds are used.

- Federal case - wire fraud theft is a result of using program funds from a program receiving federal funds

Source: Arizona Revised Statutes

Summary

Potential Next Steps When Proceeding with a Bond Election

- Engage a Bond Underwriter or Financial Advisor to work with staff to provide an independent and transparent review of the proposal
- Hire an Attorney / Bond Counsel to prepare the Political Subdivision's Order of Election, and to create or review ballot language. There are word limits and language requirements
- Develop capital costs proposal for items to be funded with the proceeds of the GO Bonds – i.e. – fire station replacement costs, incorporating admin building into the replacement, new firefighting equipment, etc – if applicable
- Form a Bond Election Committee, comprised of business leaders and key citizens that truly understands the need for the project. Members of this advisory committee may form at their option, their own Support / Advocacy Committee
- Support / Advocacy Committee may need to take the form of a political action committee (PAC), if they intend to raise money used in the advertising of the ballot proposal
  - Labor unions may participate in the advocacy process, and create their own PAC
- Activities of the Political Subdivision
  - The Political Subdivision may not utilize its own funds or resources to advocate for the ballot proposal
  - The Political Subdivision may prepare fact sheets or explanation pamphlet, and schedule educational forums with voters regarding the ballot proposal, but may not directly advocate for the passage of the ballot proposal

Appendix A

North America Rates Strategy: ***Don't be fooled, the economy isn't as strong as you think***

Jason Daw, Head of North America Rates Strategy, RBC Capital Markets

NORTH AMERICA RATES STRATEGY
RATES SALES, TRADING & STRATEGY COMMENTARY

Don’t be fooled, the economy isn’t as strong as you think

July 31 2023

RBC Dominion Securities Inc.

Jason Daw
Head of North America Rates Strategy
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Capital Markets

Key Takeaways

The cardinal mistakes in forecasting are (i) applying the current situation to justify a future outcome and (ii) timing mismatches. The critical error (timing mismatch) made by market participants over the past 6-9 months has been believing that a large and fast tightening cycle would impact the economy sooner than previous episodes. We worry that another mistake being made is justifying a “no-landing (no growth slowdown) or soft landing (slowdown but no recession) outcome based on “perceived” strength in consumer spending or the labour market. We show below that consumer and labour metrics are tracking at the middle-to-low end of the range relative to past cycles. The current state of the economy is not very strong for this point in the cycle, and even in cases where it was stronger in the past it hasn’t mitigated the chance of recession.

Maybe history doesn’t exactly repeat itself, but it usually rhymes. This slide pack tracks the evolution of various macro indicators for the US from the onset of tightening cycles over the ensuing 3 years. The analysis is valuable to understand where we are versus past cycles and to dispel many poorly constructed narratives that are floating around.

How is macro data evolving in this cycle compared to past ones?

- **Income trajectory is not strong.** With all the hype on wage growth, personal income (nominal & real) trends are at the bottom end of past cycles.
- **Consumer spending is not strong.** Wow!, It is tracking at the bottom end (nominal & real personal consumption) of historical experience. This is even more shocking (consumer spending would be weaker stripping out these effects) considering (i) excess saving and (ii) post-COVID re-opening leading to “revenge spending”.
- **And even services aren’t overly impressive**. Real services consumption is only in the middle of historical range and goods at the weaker end. The resumption of federal student loan payments in October presents a notable headwind.
- **Labour market is about on par with past cycles:** Even the much-vaunted labour market (major source of the no-landing or soft-landing scenarios) is mixed at best. Claims tracking on the weak side and the deceleration in monthly payroll growth is about normal for this point in the cycle.
- **ISM and industrial production are tracking near bottom** of past tightening cycles.
- **Leading indicator:** Probably the most ominous sign tilting the risks to a hard landing scenario (i.e recession) – string of 14 monthly declines and peak-to-trough move is one of the most severe on record.

Conclusion: Don’t be fooled. The US economy is not as strong as you think for this point in the cycle. Policy lags need to be respected. Maybe a recession (our base) takes longer to unfold, but there is nothing in the current state of macro data to suggest it can be avoided.

Defining various growth scenarios

One of the most frequent questions we receive is "what is the difference between a hard and a soft landing?"

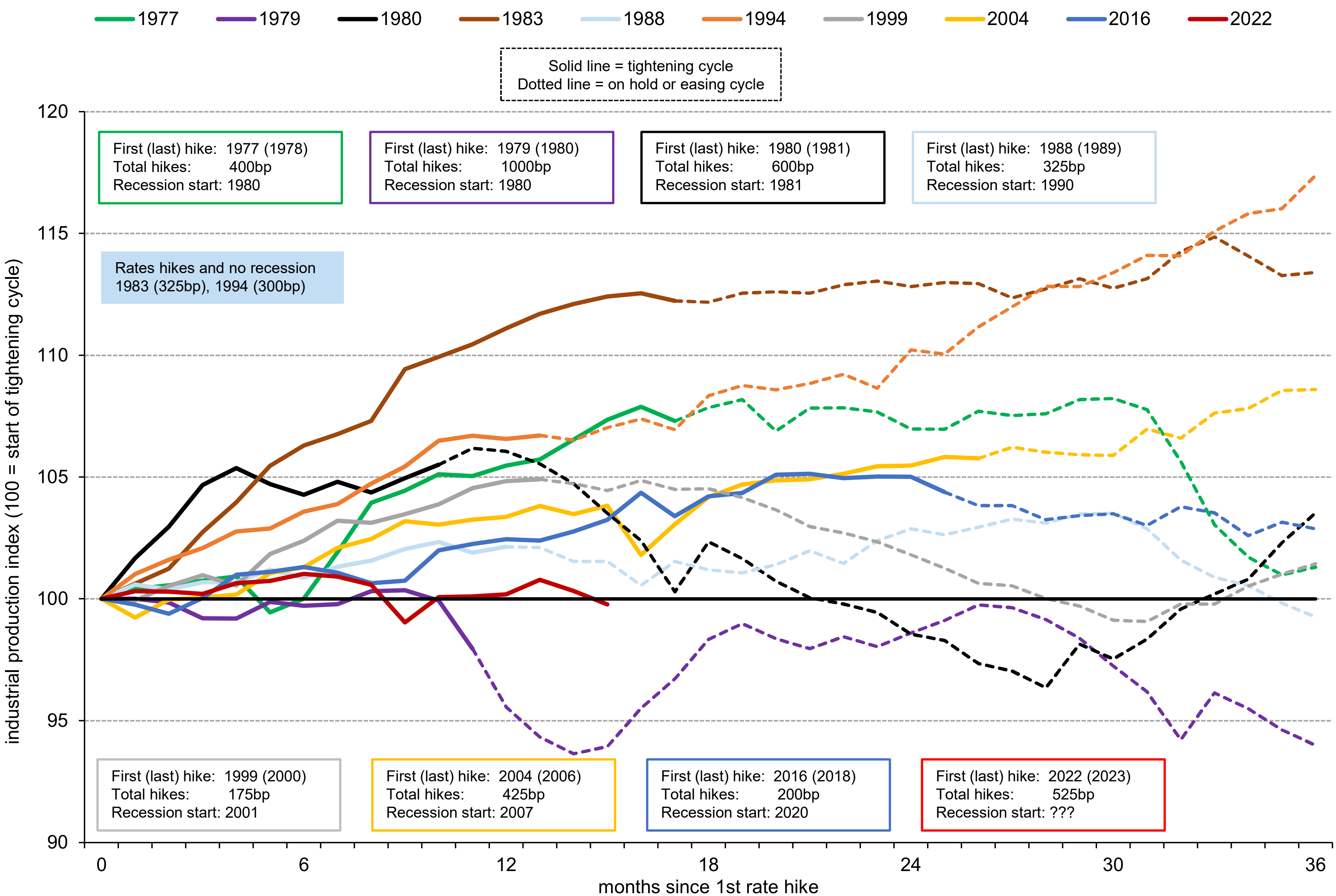
While there are no precise definitions, broadly speaking a "no-landing" would be a no-slowdown scenario, "soft landing" a growth slowdown but no recession and a "hard landing" a recession. In the table below, we break down in broad terms how we view key economic metrics (employment, prices, and output) behaving under various scenarios.

Type	Unemployment Rate	Job Losses	Inflation	GDP
Fed miracle	3.5%	0	2.0	2%
No landing	3.6%	0	3.0	2%
Soft landing	4.0%	750k	2.5	Sub 1%
Rolling recession	4.2%	1.0 million	2.5	Sector specific contractions occurring over the course of 2024
Hard landing	4.5%	1.5 million	2.0	Recession (2 quarters of negative growth)
Stagflation	5.0%+	2.5+ million	3.5	Sub 1%

2023 year-end estimates under different scenarios.

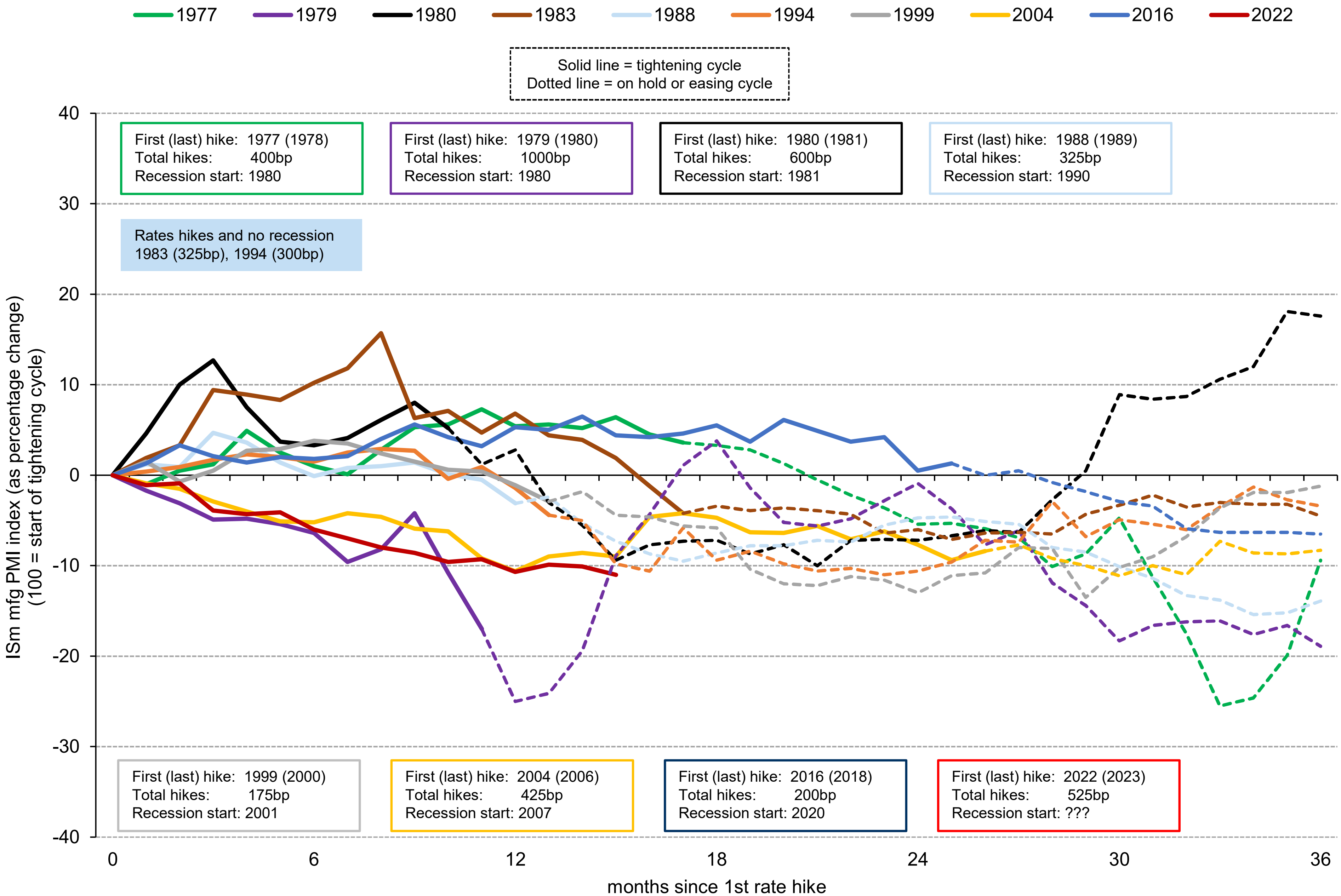
Source: RBCCM. Bloomberg

Industrial production



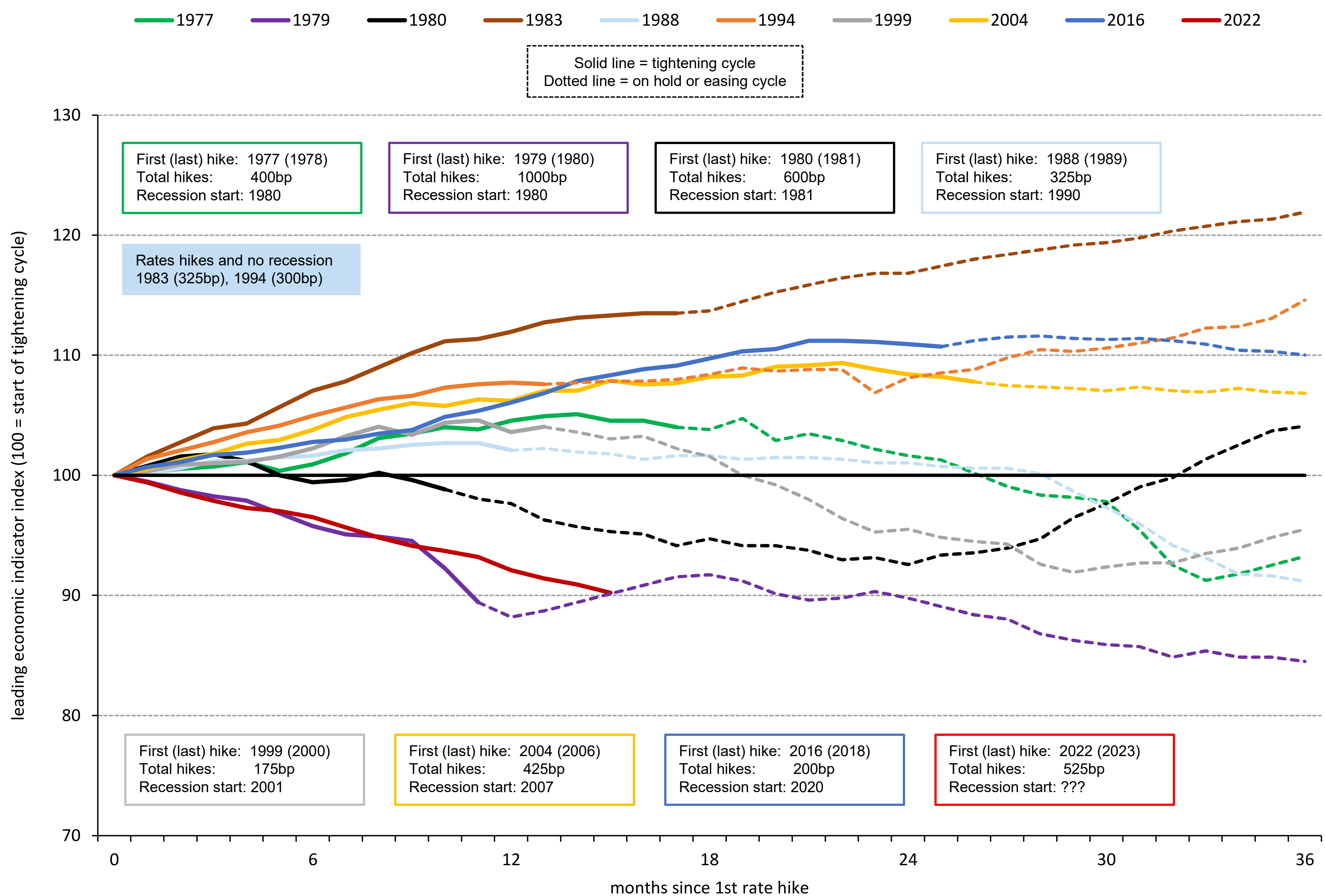
Source: RBCCM. Bloomberg, Macrobond

ISM manufacturing



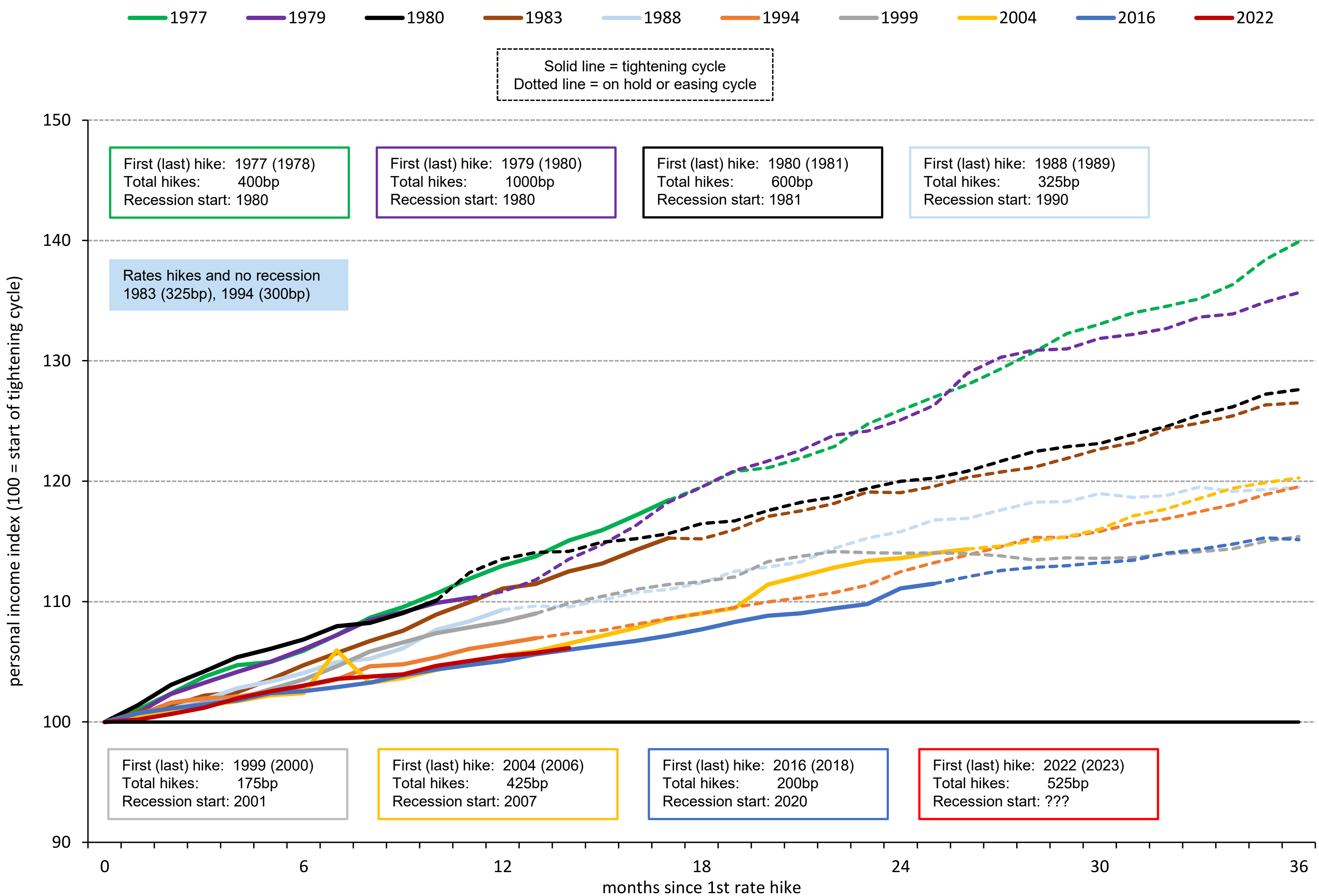
Source: RBCCM. Bloomberg, Macrobond

Leading Economic Indicator



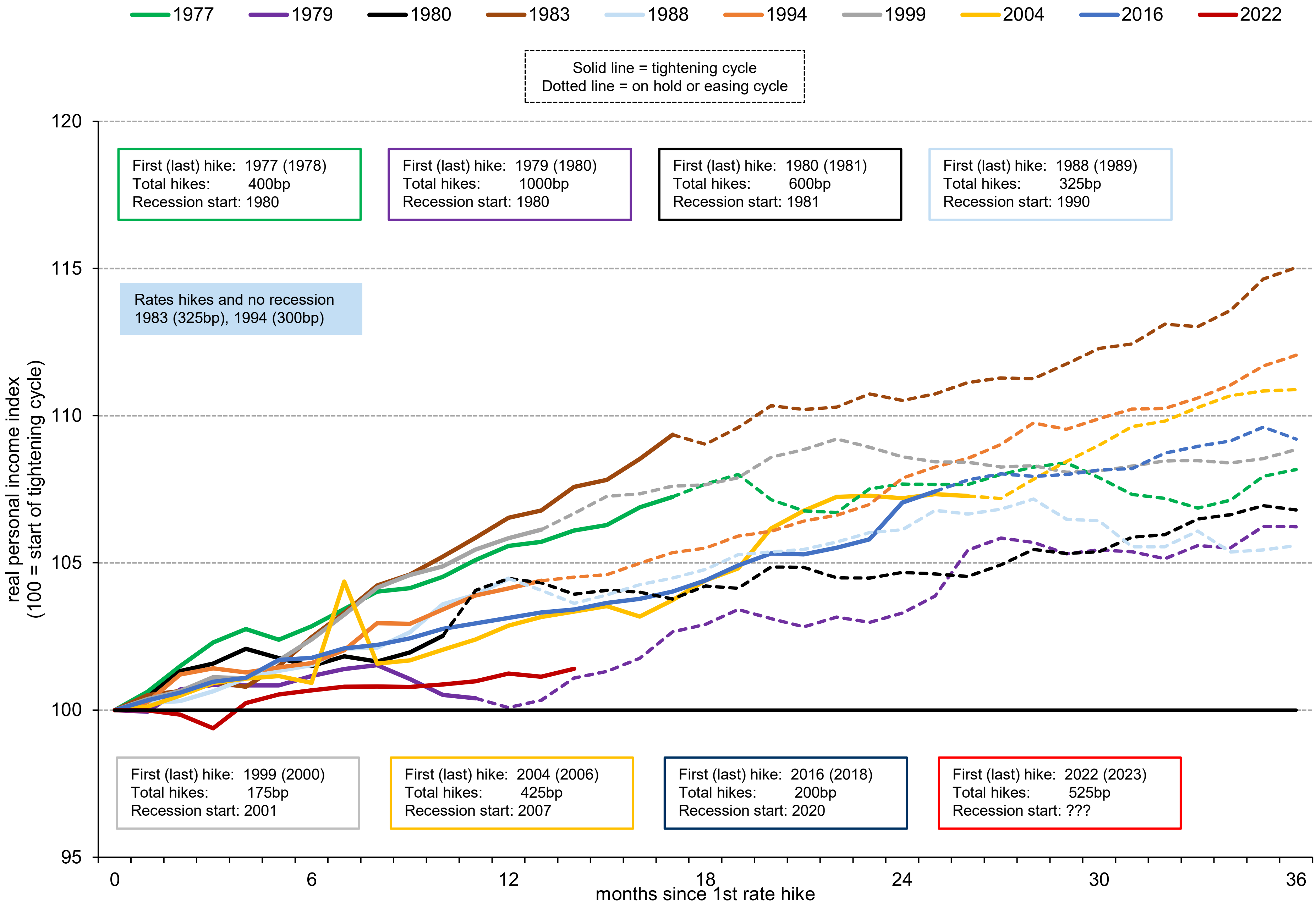
Source: RBCCM. Bloomberg, Macrobond

Personal income (nominal)



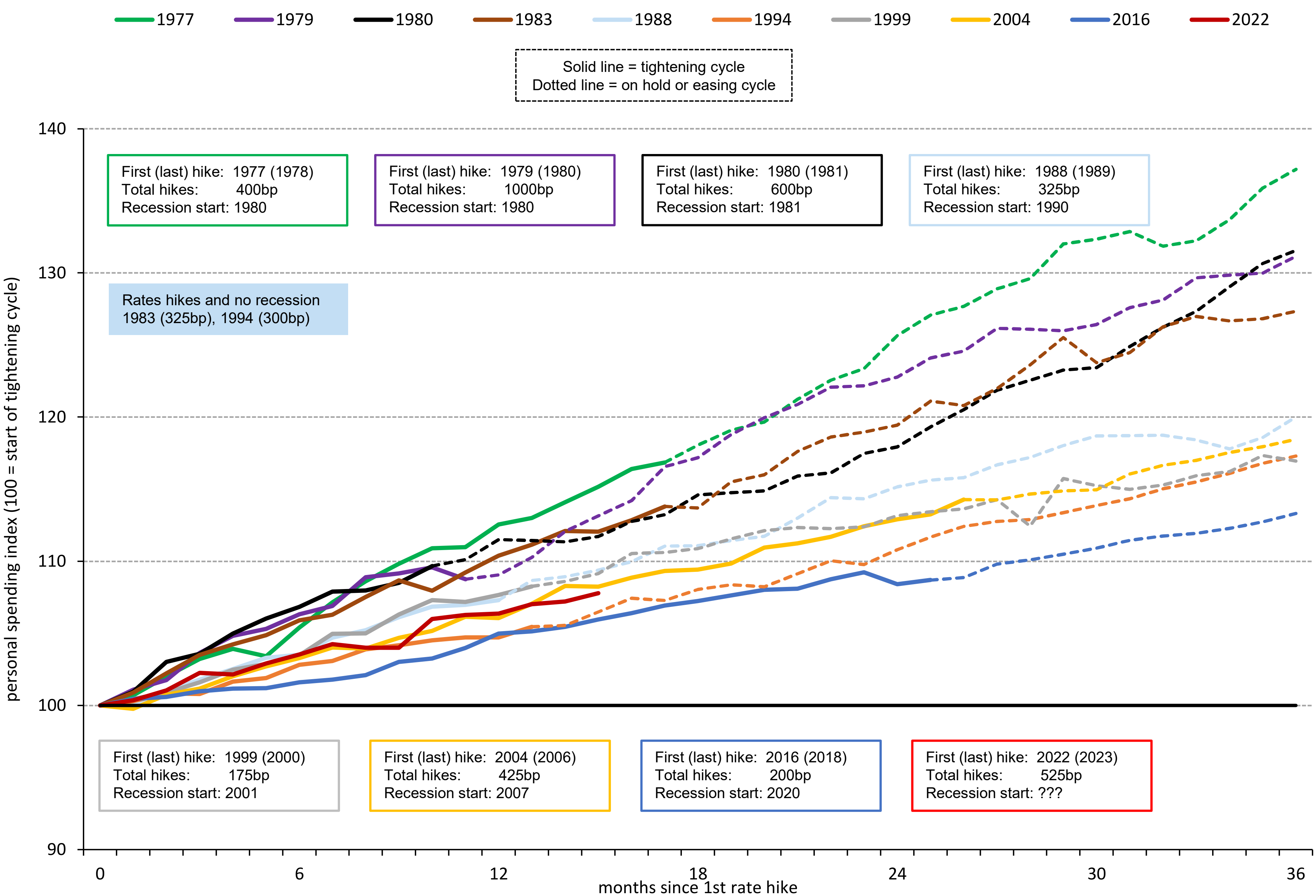
Source: RBCCM. Bloomberg, Macrobond

Personal income (real)



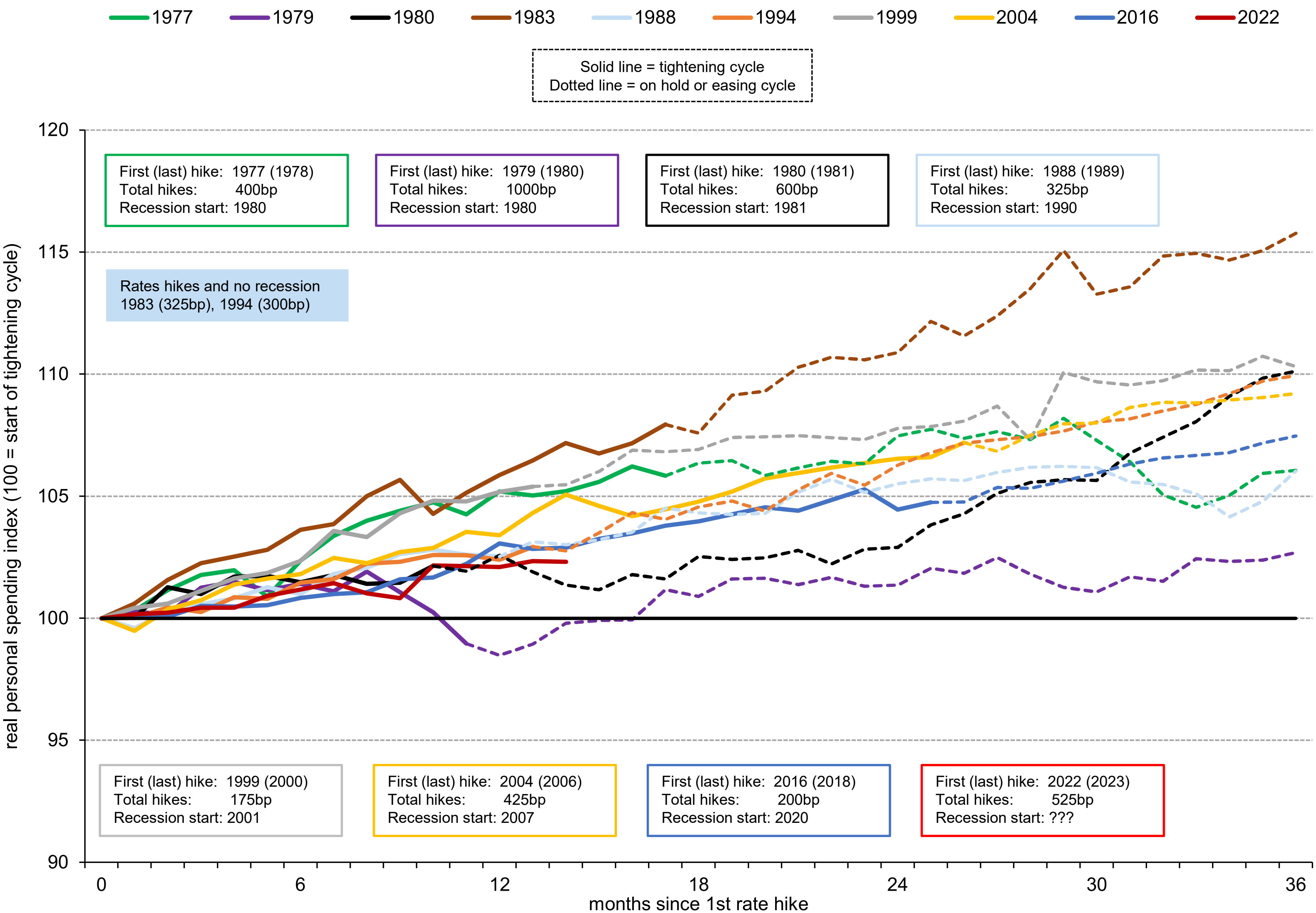
Source: RBCCM. Bloomberg, Macrobond

Personal spending (nominal)



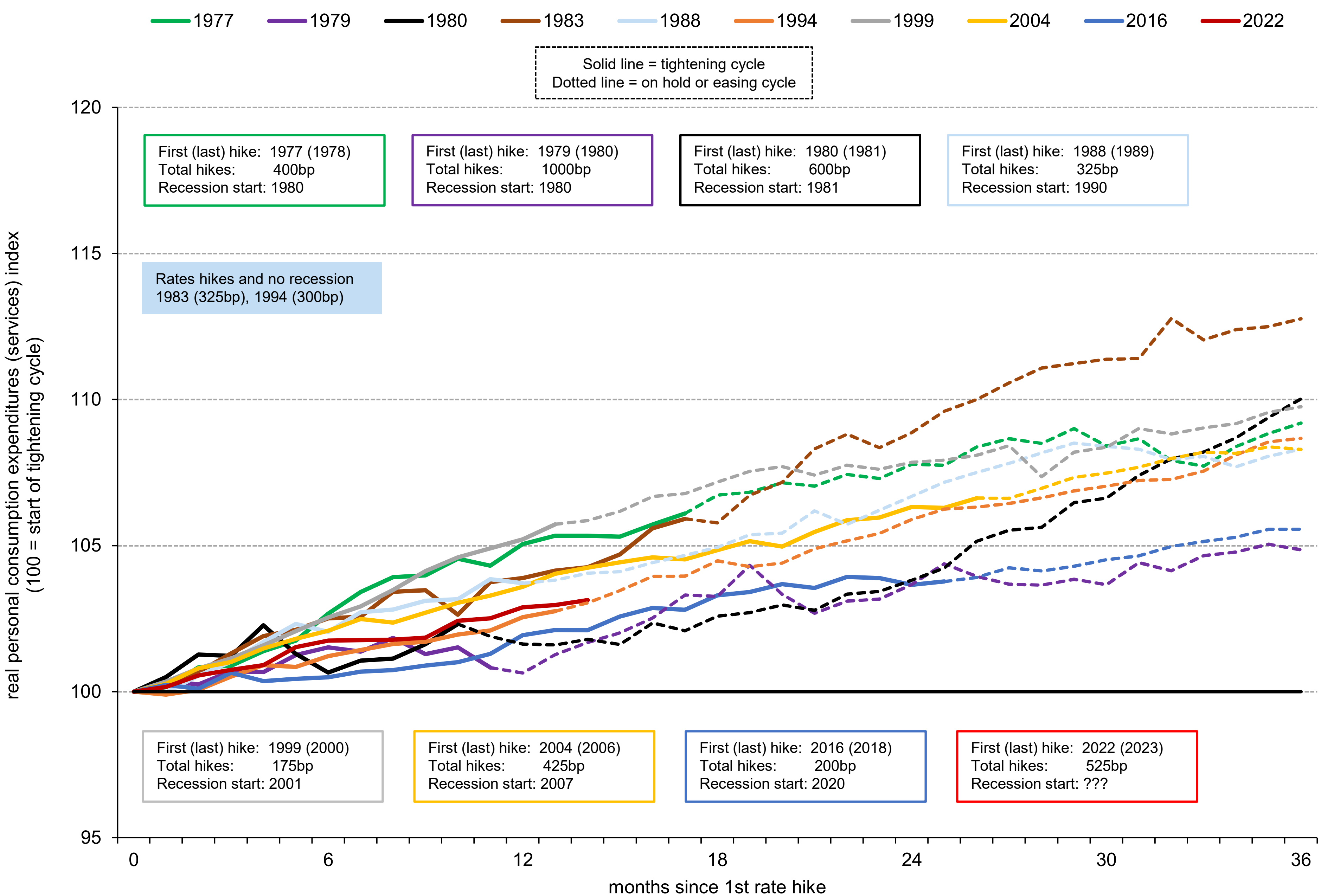
Source: RBCCM. Bloomberg, Macrobond

Personal spending (real)



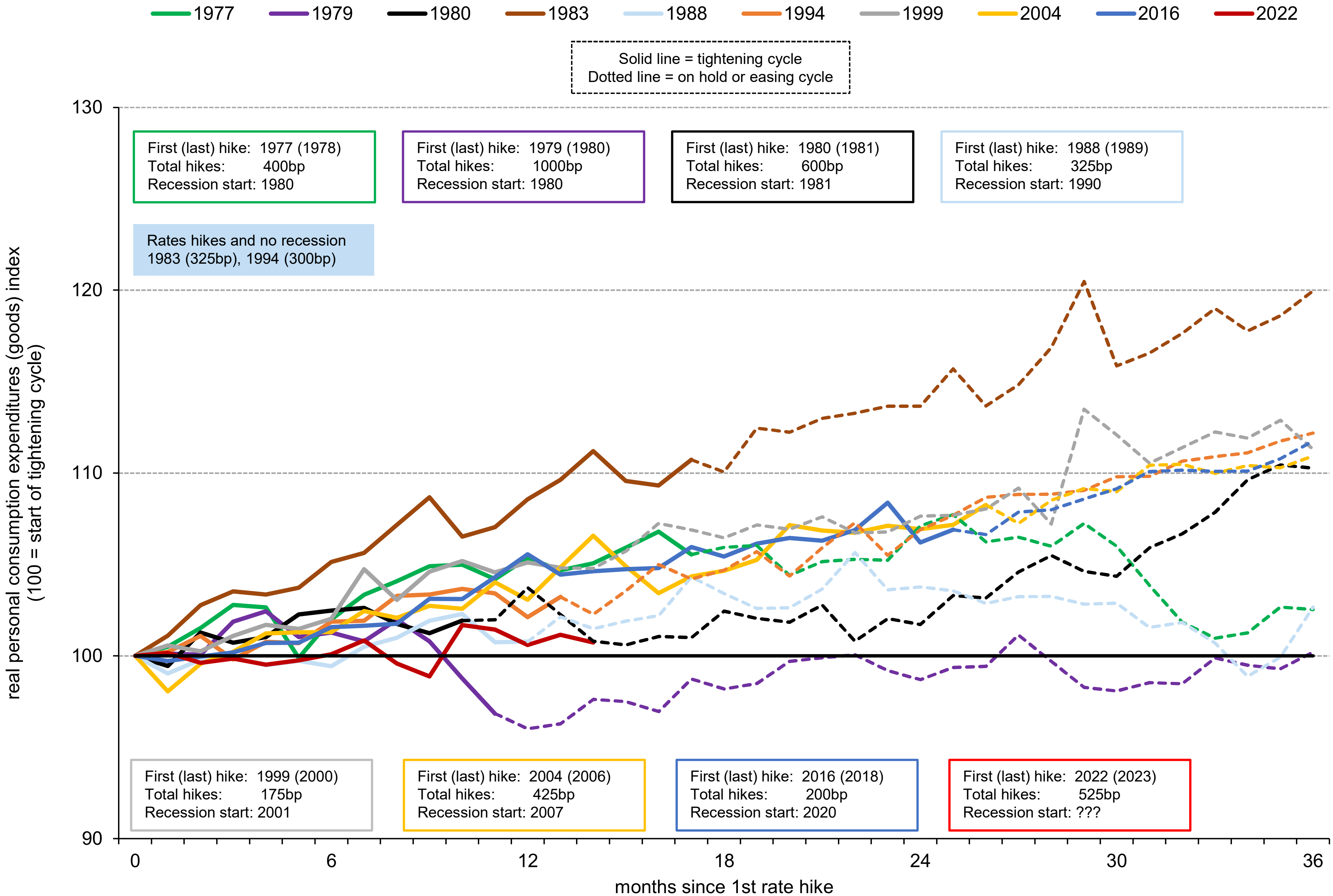
Source: RBCCM. Bloomberg, Macrobond

Personal spending services (real)



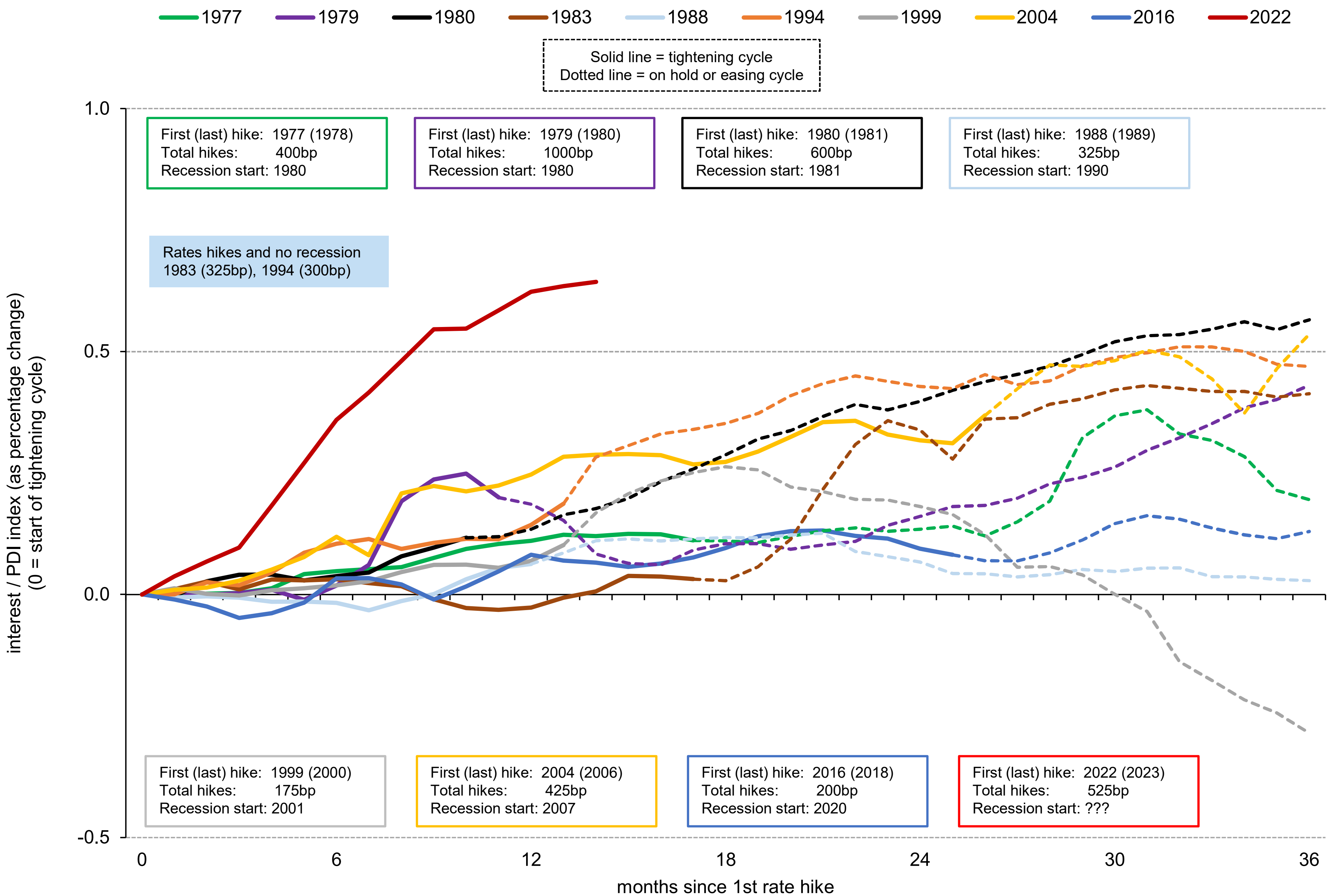
Source: RBCCM. Bloomberg, Macrobond

Personal spending goods (real)



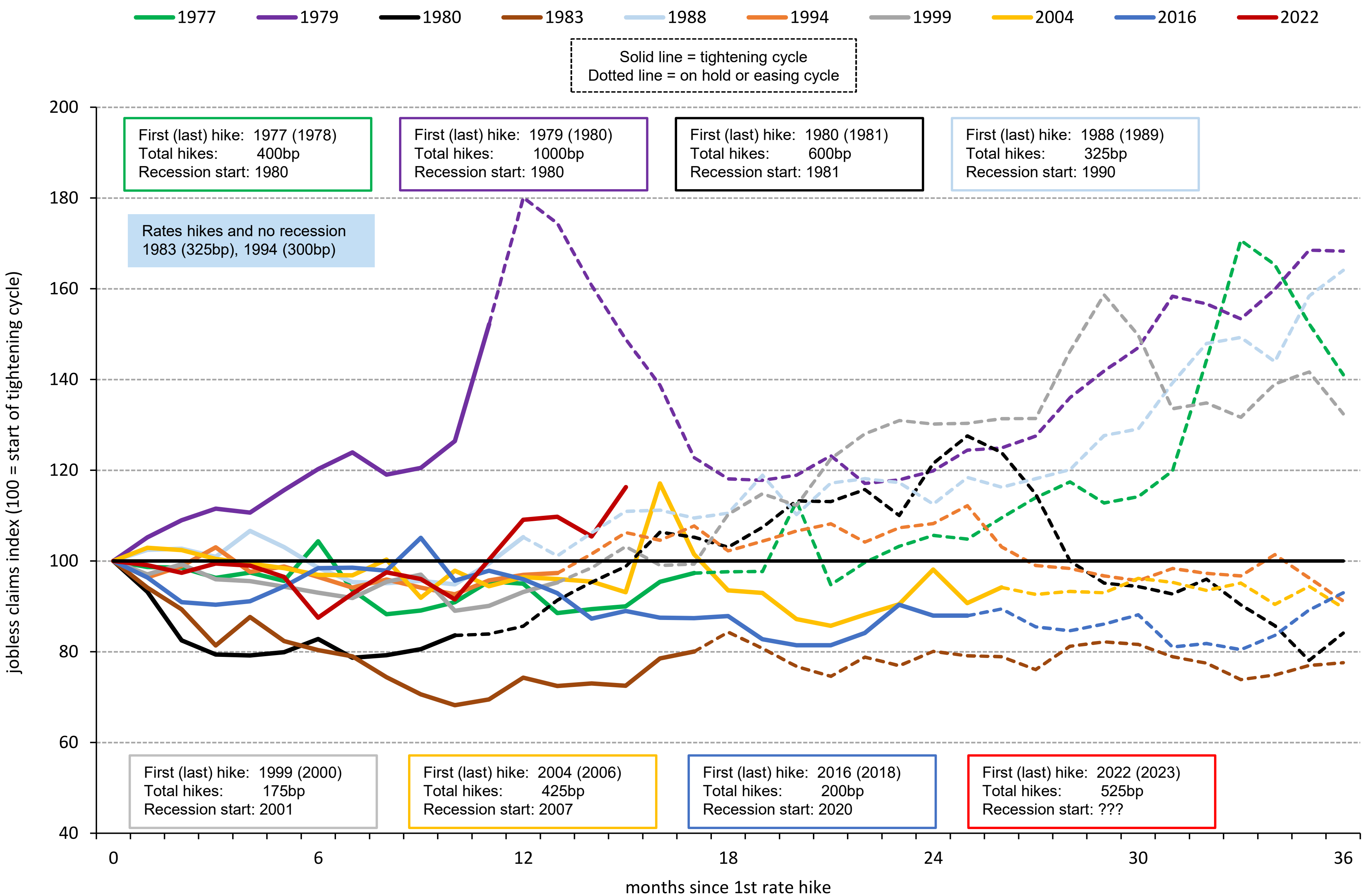
Source: RBCCM. Bloomberg, Macrobond

Household interest rate payments % of Personal Disposable Income



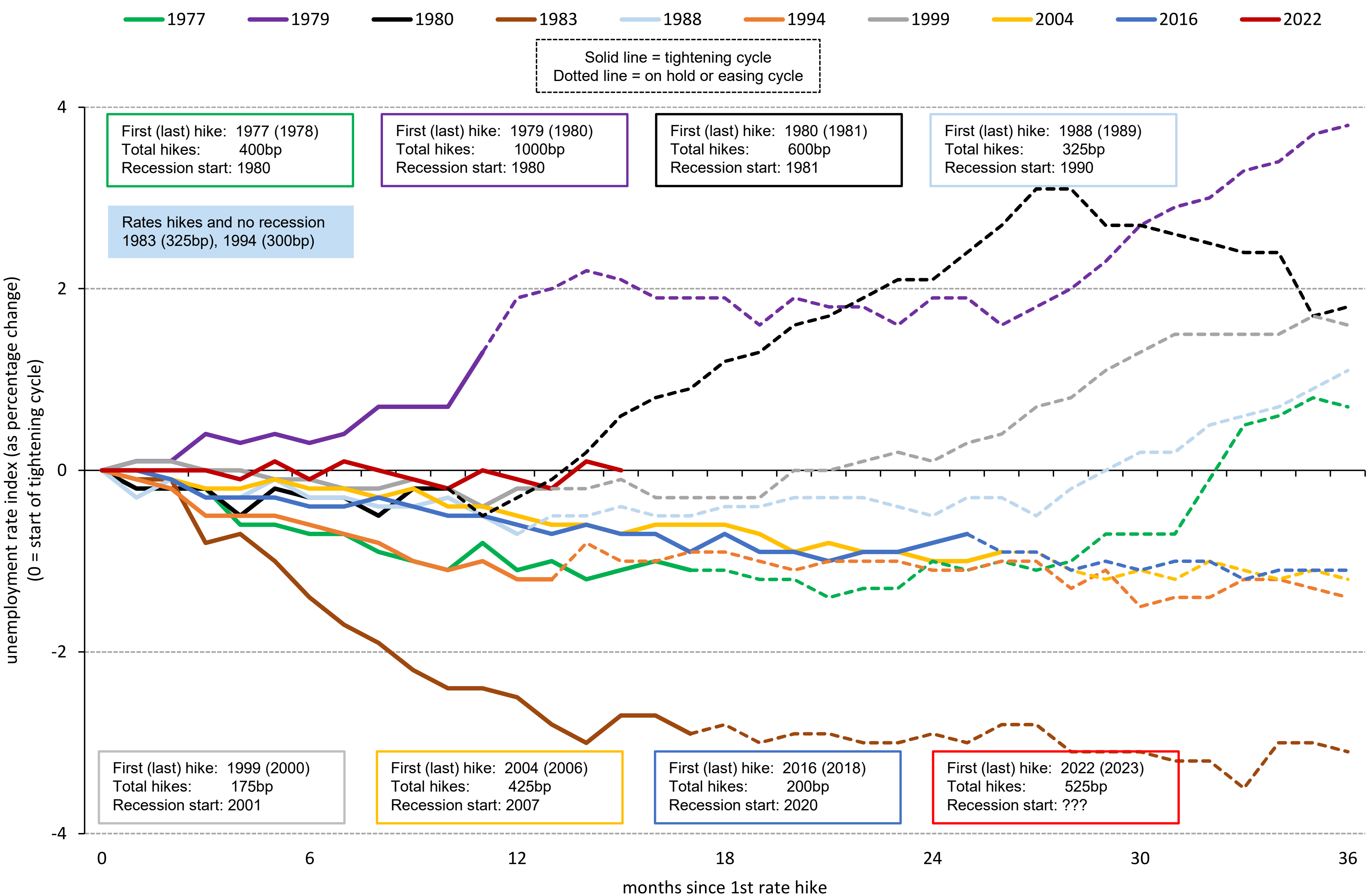
Source: RBCCM. Bloomberg, Macrobond

Jobless Claims



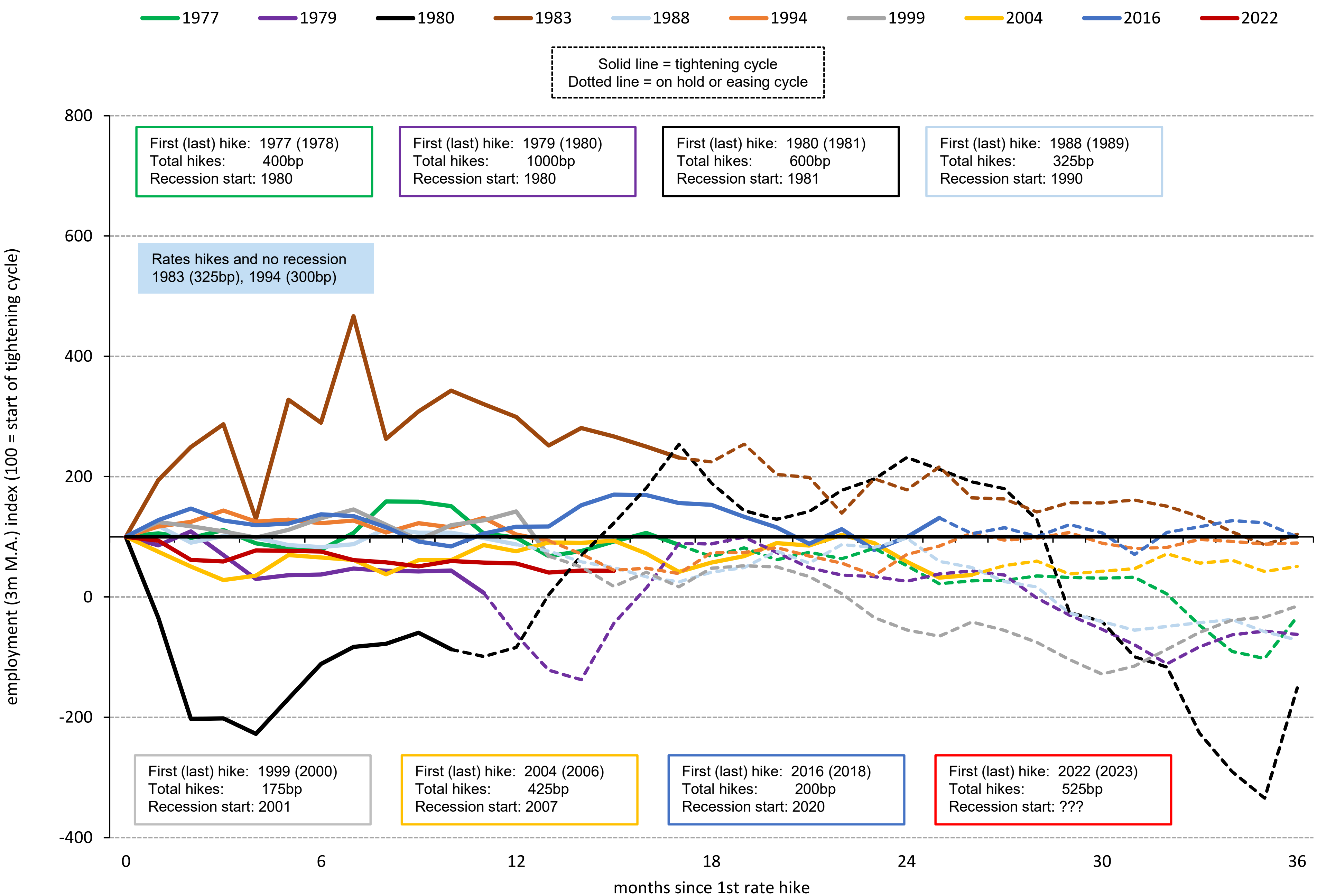
Source: RBCCM. Bloomberg, Macrobond

Unemployment rate



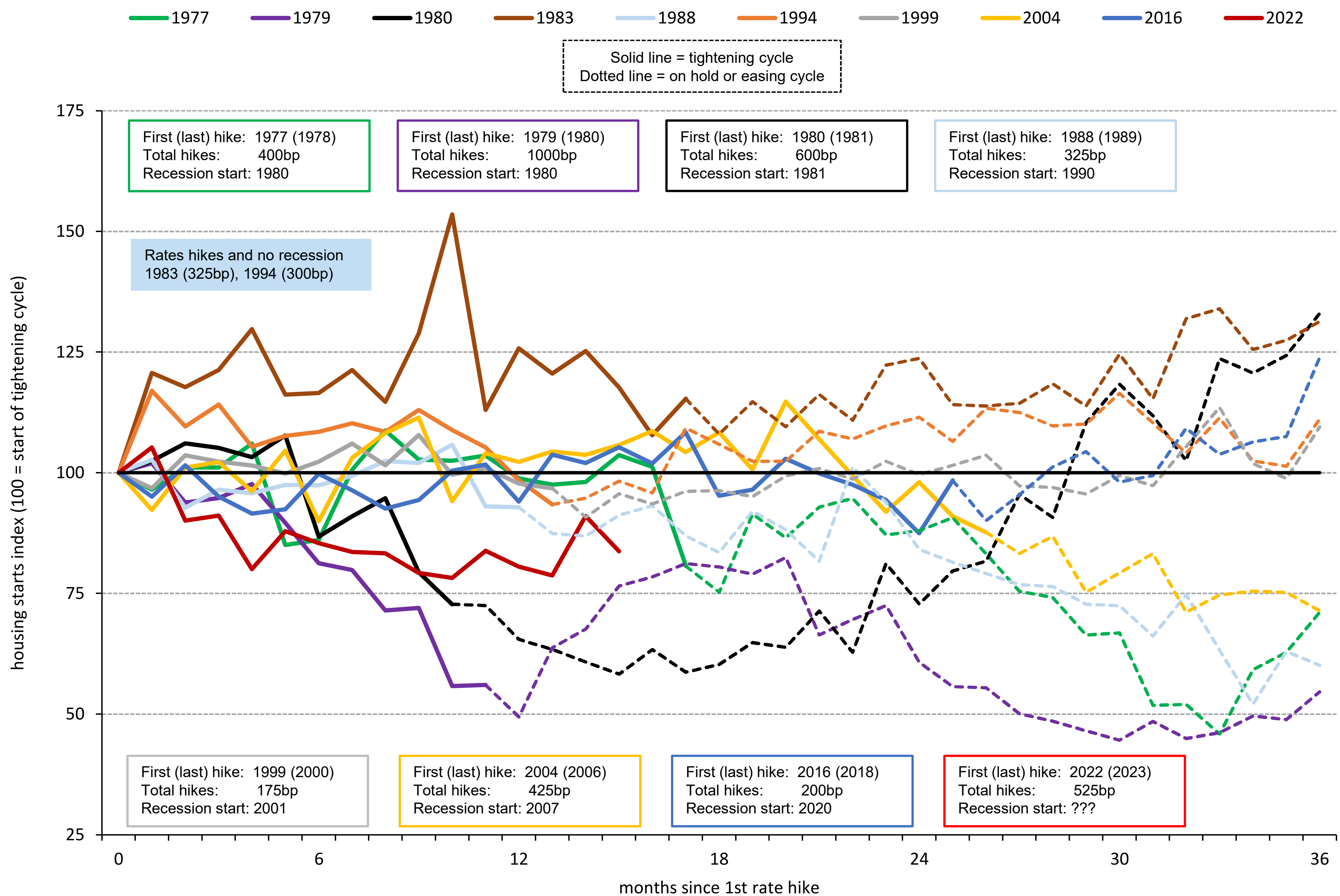
Source: RBCCM. Bloomberg, Macrobond

Employment



Source: RBCCM. Bloomberg, Macrobond

Housing starts



Source: RBCCM. Bloomberg, Macrobond

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Appendix B

Ahead of the Curve: ***UST Refunding Recap – Supply change management***

Blake Gwinn, Head of US Rates Strategy

Capital Markets

Ahead of the Curve

US Rates Sales, Trading, and Strategy Commentary

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August 2, 2023

UST Refunding Recap – Supply change management

As expected, Treasury began a cycle of boosting coupon auction sizes at today's refunding meeting. These increases were larger than consensus – at least consensus as it existed before Treasury's financing estimates were published on Monday. [As we wrote yesterday](), those larger-than-expected issuance expectations prepped markets for today's "surprise" on auction sizes. Further details on the operational parameters for the upcoming buyback program were also shared.

Treasury kicks off a new round of supply increases

Coupon auction sizes increased across the board. Nominal coupon auction sizes were increased across the board. As we noted above, sizes were a bit above most published expectations (including our own), but markets had been largely prepped by Treasury's topline financing estimates published on Monday. That being said, Treasury did lighten up on some "problematic" sectors, with smaller relative increases in 3s, 7s, and 20s. They are clearly looking to avoid the mistakes of the pandemic era supply campaign, when those benchmarks were increased in line with their more liquid neighbors. Changes can be seen in the table below (see our full auction schedule, along with forecasts for coming quarters in the appendix). As we wrote in our note yesterday, we see today's larger auction size increases as a harbinger of more supply to come. We had already penciled in two more quarters of increases, but have bumped those up modestly following this week's announcements. It's also notable that today's announcement didn't show any shyness in boosting longer-term issuance (10s +$3bn, 30s +$2bn, with more likely on the way). We note this because we had previously received some pushback that Treasury may go lighter on coupons in favor of heavier bill issuance – still high O/N RRP balances, long-term yields potentially being near cycle highs, and political considerations around the 2024 election have all been cited.

1. Announced auction sizes and increases

	2yr		3yr		5yr		7yr		10yr		20yr		30yr		FRN	
	Size	Δ	Size	Δ	Size	Δ	Size	Δ	Size	Δ	Size	Δ	Size	Δ	Size	Δ
May'23	42		40		43		35		35		15		21		22	
Jun'23	42		40		43		35		*32*		*12*		*18*		22	
Jul'23	42		40		43		35		*32*		*12*		*18*		24	
Aug'23	45	+3	42	+2	46	+3	36	+1	38	+3	16	+1	23	+2	24	+2
Sep'23	48	+3	44	+2	49	+3	37	+1	*35*	*+3*	*13*	*+1*	*20*	*+2*	24	+2
Oct'23	51	+3	46	+2	52	+3	38	+1	*35*	*+3*	*13*	*+1*	*20*	*+2*	26	+2

Source: U.S. Treasury Dept., RBCCM. *Italicized = reopenings.*

Bill supply to continue growing. Larger coupon increases weren't enough to let bills entirely off the hook though. Treasury said they anticipate that "further moderate increases to bill auction sizes will be announced in the coming days." As we discussed in yesterday's note, we already marked up our near-term bill supply forecasts following the Monday financing release, but there wasn't really any new information on that front in today's announcement. Even with coupon supply going up, bills (as a percent of outstanding) will almost certainly climb outside of Treasury's 15-20% range by the end of this year. But the Treasury Borrowing Advisory Committee (not Treasury) said that they were comfortable with a temporarily larger share for bills in order to keep coupons from having to move up too violently. We agree and note that as net coupon issuance continues to build, bills should pull back into that range. We (very loosely) have this occurring in mid-2024. (Please see our prior piece for more specifics and some charts on bill supply). Separately, Treasury also specified that regular 6wk CMB auctions will continue through at least year-end. Given the auction sizes that will eventually become necessary to sustain expected bill supply, we would not be surprised to see Treasury divide that burden by permanently adding the 6-wk as a fully-fledged benchmark sometime next year.

TIPS to increase modestly. TIPS increases were in line with our expectations with a $1bn increase to the new 5-year issue in October. This should be fairly easily absorbed by markets. We expect Treasury to follow with a $1bn increase in the new 10-year issue next quarter, and another $1bn increase in 5s. This should help to keep TIPS share of outstanding relatively stable as bills and nominal coupon issuance rises.

Buyback details continue to emerge

The focus in this refunding was on the operational design of the upcoming buyback program. We won't rehash all the details announced today as they're already nicely summarized in Treasury's presentation, but we did want to briefly discuss some of the items we viewed as highlights.

- **Treasury established that they will not have a minimum purchase size at each operation:** We have long been highlighting this as one of (if not *the*) most important parameter decision for this program. This stands in contrast to the Fed's monetary policy-driven POMOs, which would always buy close to the announced operation size, regardless of the quality of the offers. But Treasury said today that they will gladly walk from an operation without purchasing anything if the offers aren't exhibiting what (we suppose) could be deemed as sufficient liquidity stress – i.e. cheap enough to spline and/or market pricing for Treasury's liking. This is probably a disappointment to those hoping these buybacks would serve as a constant, strong, bid for off-the-runs in the way that Fed POMOs did.
- **Treasury's will buy up to $4bn in each maturity bucket, *per quarter*:** Treasury set maximum quarterly purchase amounts of $4bn per maturity bucket, with a maturity bucket built around every benchmark issue. As we discussed last quarter, these purchase sizes are much smaller than the Fed's QE programs and are likely a bit of a disappointment to those hoping for this program to be QE-lite (although those hopes were likely already dashed last quarter).
- **Treasury's purchase buckets were evenly distributed *by par* across the curve:** The fact that Treasury is buying up to $4bn in every bucket is somewhat interesting. Compare this to the Fed's post-pandemic purchases, which were weighted across maturity buckets to more closely match the duration/liquidity/float/etc. of each bucket - for example, buying a lot more 2s than 30s. This neutralized much of the market WAM and curve impact. But with no minimums, Treasury could theoretically be buying the full $4bn in 30s every quarter with no purchases in any other buckets. This would certainly have an impact on the WAM of outstanding debt and the curve. Given that Treasury explicitly stated last quarter that buybacks "would not be used to fundamentally change the overall maturity profile of the debt" (their underline, not ours, believe it or not), it would seem to imply that they will be funding purchases in any given bucket with replacement issuance into the same bucket. Treasury could do this via a similar mechanism to the Fed's add-ons – tacking the purchase amount on to the auction for the corresponding benchmark. For example, Treasury buys $1.2bn off-the-run 30s at an operation, but then issues X+$1.2bn at the next 30-year auction. After the purchase operation and auction settles, the market would be holding roughly the same WAM, except with more of it now in the newly issued on-the-run instead of illiquid off-the-runs. Of course, unlike Fed add-ons, private markets would have to take down any additional supply. This would seemingly run counter to Treasury's "regular and predictable" mantra. Treasury will almost certainly try to smooth this out somehow, but it's pretty clear that buybacks can't be blanketly funded by, say, bill issuance without altering WAM.
- **Other details were largely mundane, and as expected. Some questions remain:** Beyond the issues discussed above, the details shared (exclusion parameters, results releases, etc.) mostly mirror Fed operations and were widely expected. There are still some outstanding questions as to: when this program will be finalized and rolled out (February refunding start seems perfectly reasonable to us, but low conviction), how Treasury will evaluate and choose which offers to accept (they may never give full details on this, for obvious reasons), the number and frequency of operations, and scheduling. Aside from the secret sauce in their offer selection, most of these other operational details will likely be hammered out and shared with the public at the next refunding meeting.

Quick note on the US downgrade

While we didn't feel it was worth its own note, this seems like a good vehicle to briefly mention the Fitch downgrade, before it's completely forgotten next week. For those who might have missed it, Fitch announced a downgrade of long-term US debt by one notch (from AAA to AA+) last night. We are a bit puzzled (to say the least) as to the reasoning behind the move, and the timing, months after the debt limit resolution and on the eve of Treasury's refunding announcement, is…interesting. But in the end, we don't think this really matters and expect no discernible market impact. In most of our work on the debt limit, we found that the mechanical impacts (meaning forced liquidations, modifications to haircuts, exclusions at CCPs, etc.) of a single entity downgrade were marginal at best. Many docs and guidelines refer to USTs as an asset class without any explicit requirement on ratings. For those that do have ratings guidelines, many would require UST to have been downgraded by multiple tiers (and sometimes multiple agencies) to start falling in lower buckets. Moreover, many are specifically keyed to S&P and Moody's, not Fitch. Also note that this is only the long-term rating being downgraded - the short-term rating and country ceiling were reaffirmed at the highest levels.

Appendix 1: Expected Auction Sizes

	Nominal							FRN	TIPS		
	2-year	3-year	5-year	7-year	10-year	20-year	30-year	2-year	5-year	10-year	30-year
May-21	60	58	61	62	41	27	27	26		13	
Jun-21	60	58	61	62	38	24	24	26	16		
Jul-21	60	58	61	62	38	24	24	28		16	
Aug-21	60	58	61	62	41	27	27	26			8
Sep-21	60	58	61	62	38	24	24	26		14	
Oct-21	60	58	61	62	38	24	24	28	19		
Nov-21	58	56	59	59	39	23	25	24		14	
Dec-21	56	54	57	56	36	20	22	24	17		
Jan-22	54	52	55	53	36	20	22	26		16	
Feb-22	52	50	53	50	37	19	23	22			9
Mar-22	50	48	51	47	34	16	20	22		14	
Apr-22	48	46	49	44	34	16	20	24	20		
May-22	47	45	48	42	36	17	22	22		14	
Jun-22	46	44	47	40	33	14	19	22	18		
Jul-22	45	43	46	38	33	14	19	24		17	
Aug-22	44	42	45	37	35	15	21	22			8
Sep-22	43	41	44	36	32	12	18	22		15	
Oct-22	42	40	43	35	32	12	18	24	21		
Nov-22	42	40	43	35	35	15	21	22		15	
Dec-22	42	40	43	35	32	12	18	22	19		
Jan-23	42	40	43	35	32	12	18	24		17	
Feb-23	42	40	43	35	35	15	21	22			9
Mar-23	42	40	43	35	32	12	18	22		15	
Apr-23	42	40	43	35	32	12	18	24	21		
May-23	42	40	43	35	35	15	21	22		15	
Jun-23	42	40	43	35	32	12	18	22	19		
Jul-23	42	40	43	35	32	12	18	24		17	
Aug-23	45	42	46	36	38	16	23	24			8
Sep-23	48	44	49	37	35	13	20	24		15	
Oct-23	51	46	52	38	35	13	20	26	22		
Nov-23	54	48	55	39	41	17	25	26		15	
Dec-23	57	50	58	40	38	14	22	26	20		
Jan-24	60	52	61	41	38	14	22	28		18	
Feb-24	62	54	63	41	42	17	26	26			9
Mar-24	64	56	65	41	39	14	23	26		16	
Apr-24	66	58	67	41	39	14	23	28	23		
May-24	66	58	67	41	42	17	26	26		16	
Jun-24	66	58	67	41	39	14	23	26	21		
Jul-24	66	58	67	41	39	14	23	28		18	
Aug-24	66	58	67	41	42	17	26	26			8
Sep-24	66	58	67	41	39	14	23	26		16	
Oct-24	66	58	67	41	39	14	23	28	23		
Nov-24	66	58	67	41	42	17	26	26		16	

Source: U.S. Treasury Dept., RBCCM. *Red=cut vs. last, green=increase.*

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