Policy Rule Forward Guidance Following the Covid-19 Recession

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"The Road Ahead for Central Banks"

Hoover Institution

November 18, 2020

Revised Statement on Longer-Run Goals and Monetary Policy Strategy – August 27

❑ Flexible Average Inflation Targeting

"following periods when inflation has been running persistently below 2 percent, appropriate monetary policy will likely aim to achieve inflation *moderately* above 2 percent for some time"

❑ Mitigate *Shortfalls*, Rather then *Deviations*, of Employment from its Maximum Level

Papell, Prodan

FOMC Meeting of September 15 - 16

❑ Summary of Economic Projections

- Median Projection for Federal Funds Rate 0.1 Percent Through the End of 2023

❑ Enhanced Forward Guidance

- Effective Lower Bound of 0 to ¼ Percent

- "Until Labor Market Conditions have Reached Levels Consistent with the Committee's Assessment of Maximum Employment *and* Inflation has Risen to 2 Percent *and* is on Track to Moderately Exceed 2 Percent for Some Time"

Robert Kaplan – Dallas Fed

❑ Voted in Favor of the Revised Statement

❑ Agreed with the Median SEP Projections

❑ Voted Against Enhanced Forward Guidance

❑ Distinction Between "Accommodative" and "Zero"

- Close to Achieving Dual Mandate Objectives

- Federal Funds Rate at Effective Lower Bound

- Difference Between FFR and Neutral FFR Increases

❑ Raises Questions of Desirability and Credibility

Richard Clarida – Vice Chair

❑ Brookings Speech on November 16

❑ FFR at ELB Until Inflation and Employment Goals Met

❑ After Liftoff from Effective Lower Bound

- "Taylor-Type" Rule Consistent with New Framework

- Taylor Principle with Standard Coefficient on Inflation

- Coefficient of Zero on the Unemployment Gap

- Neutral Real Policy Rate Equal to His SEP Projection

Policy Rule Forward Guidance

❑ Modify Taylor and Balanced Approach Rules

- Consistent with Revised Statement

- Consistent with Projections of FFR at ELB through 2023

- Consistent with Clarida's Rule After Liftoff

- Not Consistent with Enhanced Forward Guidance

- "Accommodative" Instead of "Zero"

Outline of the Paper

❑ Revised Statement on Longer-Run Goals and Monetary Policy Strategy

❑ Policy Rules Consistent with Revised Statement

❑ February 2020 Monetary Policy Report

- Traditional and Modified Rules

❑ Scenarios for Policy Rule Forward Guidance

Revised Statement on Longer-Run Goals and Monetary Policy Strategy
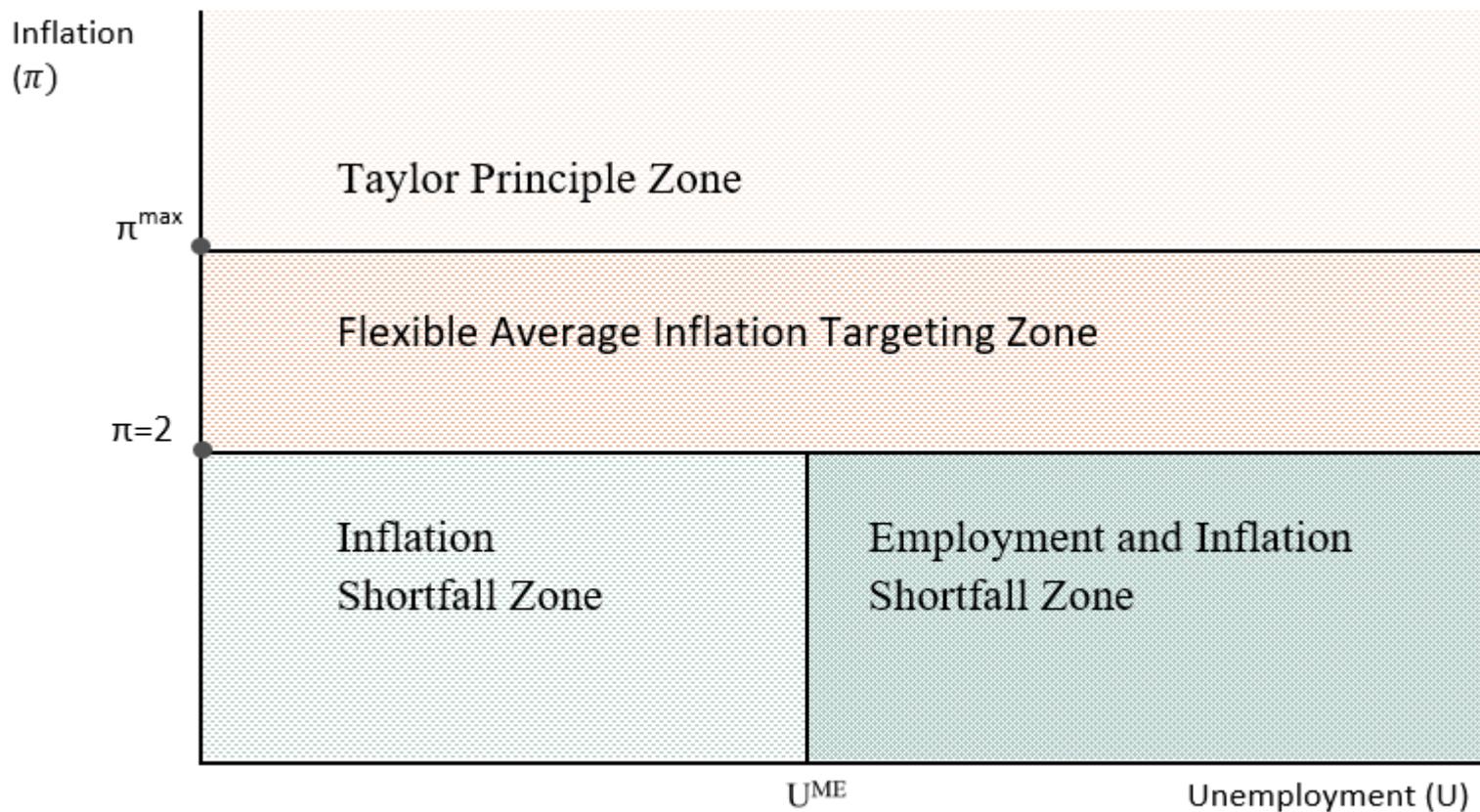
Policy Rules in the Monetary Policy Reports

$$R_t = r_t^{LR} + \pi_t + \alpha(\pi_t - 2) + \beta(U_t^{LR} - Ut)$$
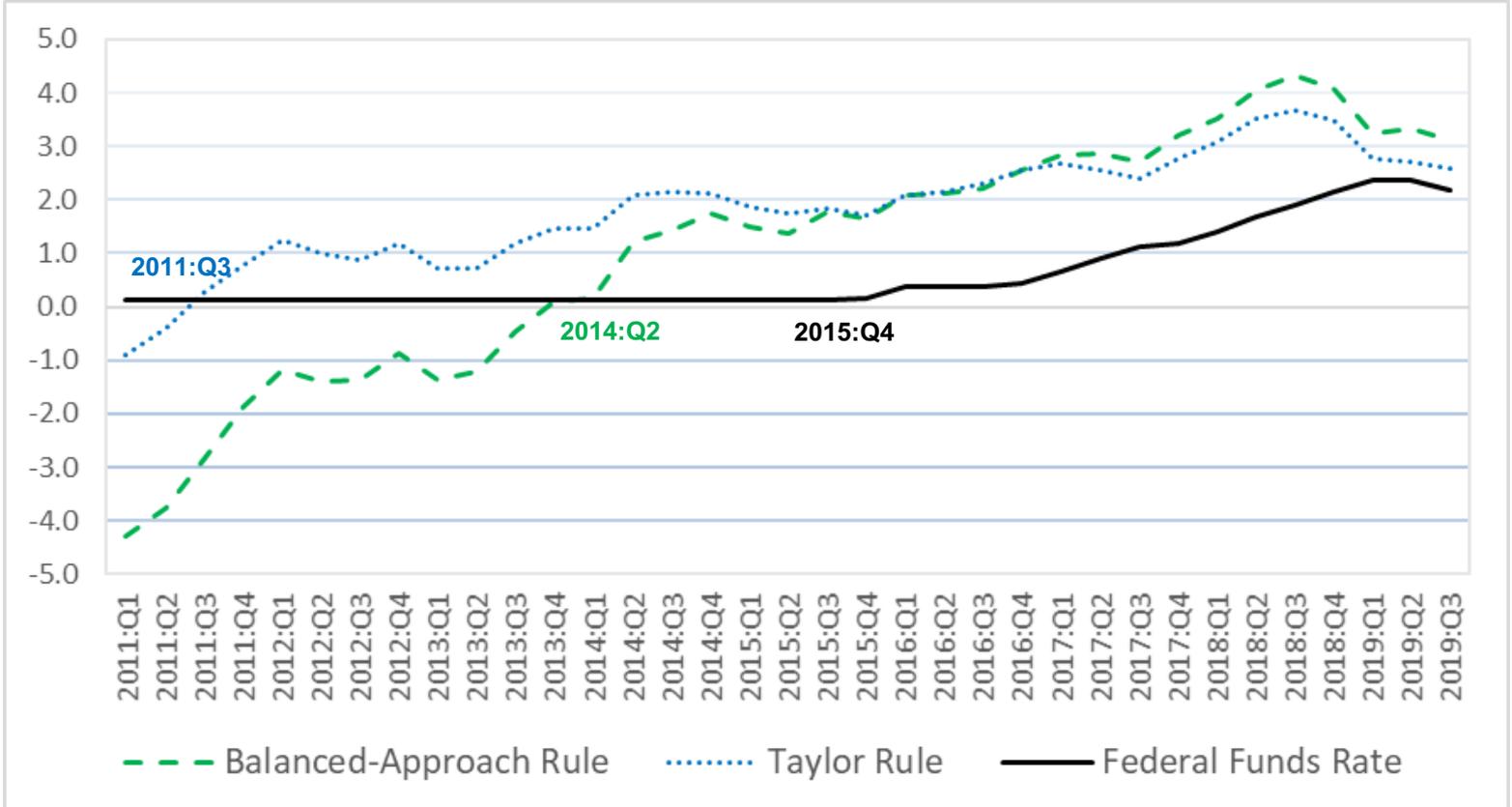
R_t = Federal Funds Rate

r_t^{LR} = Neutral Real Federal Funds Rate

U_t^{LR} = Unemployment Rate in Longer Run

Taylor Rule: α = 0.5 and $\beta = 1.0$

Balanced Approach Rule: α = 0.5 and $\beta = 2.0$

Historical Federal Funds Rate Prescriptions from Policy Rules

Policy Rules Consistent with Revised Statement

$$R_t = r_t^{LR} + \pi_t + \alpha(\pi_t - \pi^{MAX}, \pi_t - 2) + \beta(U^{ME} - U_t, 0)$$

Compare with Clarida's "Taylor-Type" Rule

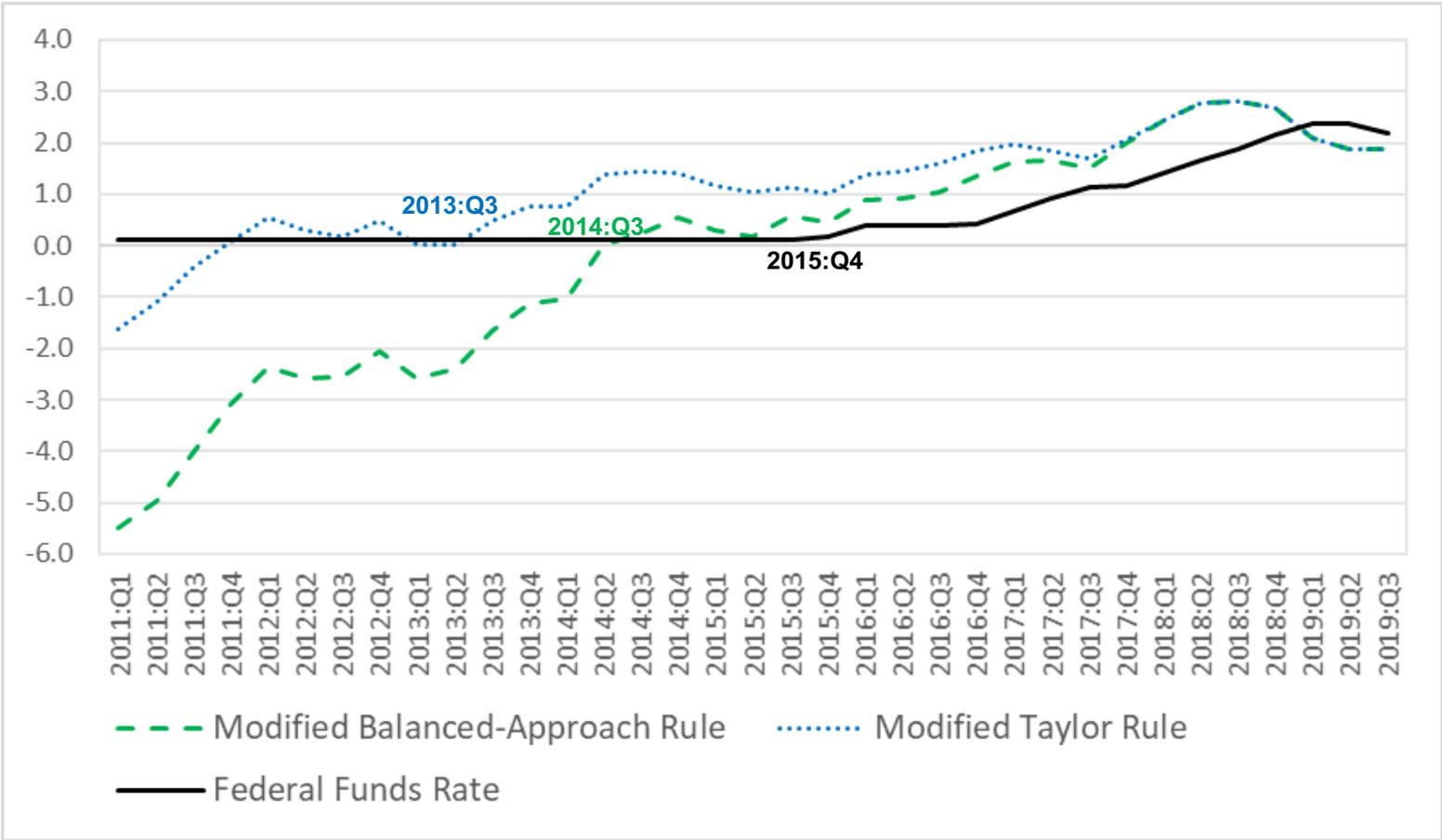Similar once $\pi_t \geq \pi^{MAX}$ and $U_t \leq U^{ME}$

Different when $\pi_t < \pi^{MAX}$ and/or $U_t > U^{ME}$

Accommodative Versus Zero

February 2020 Monetary Policy Report with Modified Rules

π^{MAX} = 2.4 Percent and $U^{ME} = U_t^{LR}$ - 0.5

# Federal Funds Rate Prescriptions from Modified Policy Rules

Does the Revised Statement Increase Discretion?

❑ U_t^{LR} and "2" More Specific than U^{ME} and π^{MAX}

❑ Policy Rules in the Monetary Policy Reports

- Taylor and Balanced Approach Rules

- Adjusted Taylor, Price Level and First-Difference Rules

- Not Consistent with Revised Statement

- Wide Range of Policy Prescriptions

- Gap Between Highest and Lowest Over 3 Percent in 2019

❑ Policy Rules in Future Monetary Policy Reports

- Modified Taylor and Balance Approach Rules

- Potential for More Predictability and Less Discretion

Scenarios for Policy Rule Forward Guidance

❑ Policy Rule Exit Curves

- Combinations of Inflation and Unemployment

- $0.25 = 0.5 + \pi_t + \alpha(\pi_t - 2.4) + \beta(3.0 - U_t)$

- $r_t^{LR} = 0.5$, $\pi^{MAX} = 2.4$, and U^{ME} = 3.0
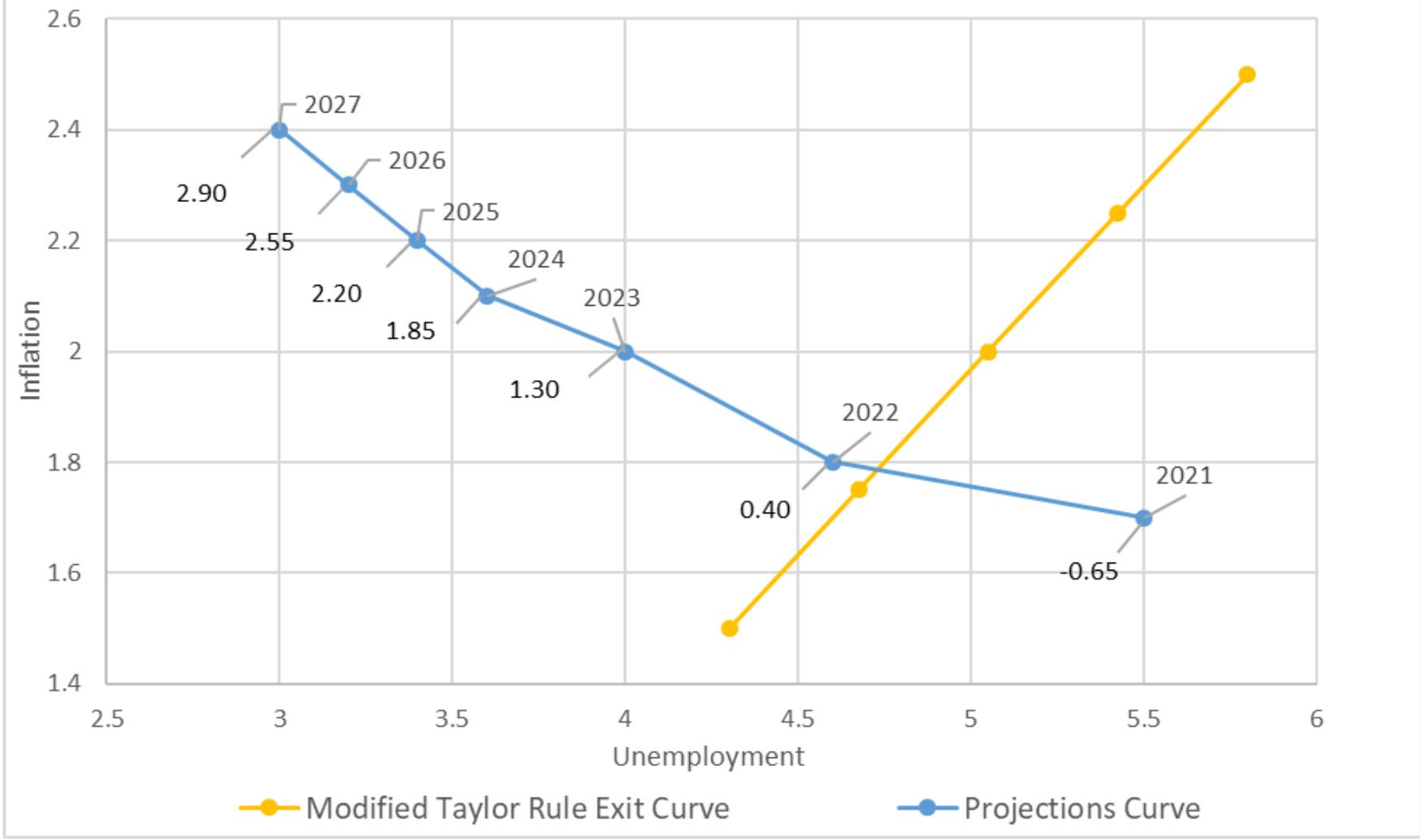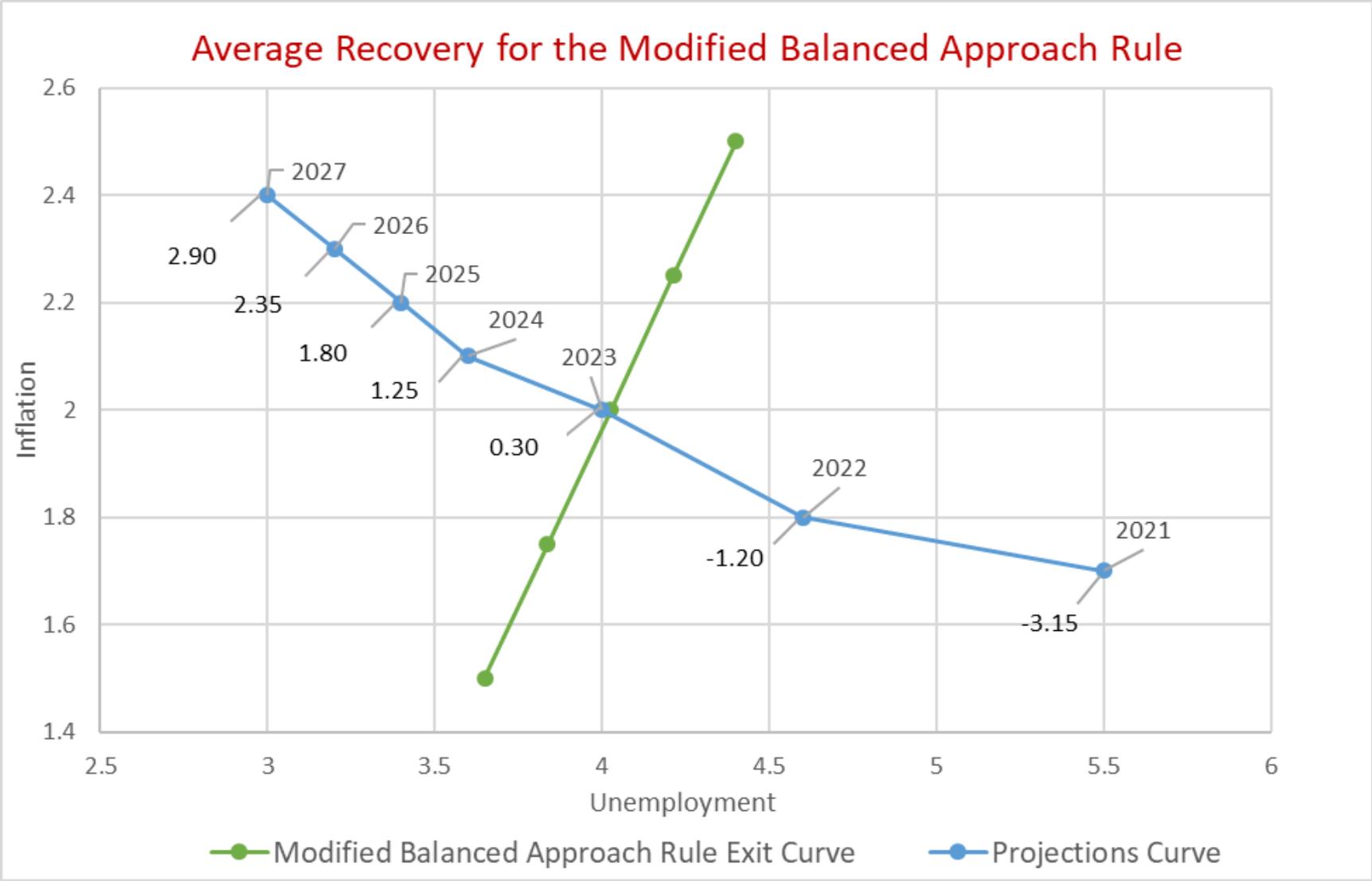
- Taylor and Balanced Approach Rules

Policy Rule Exit Curves
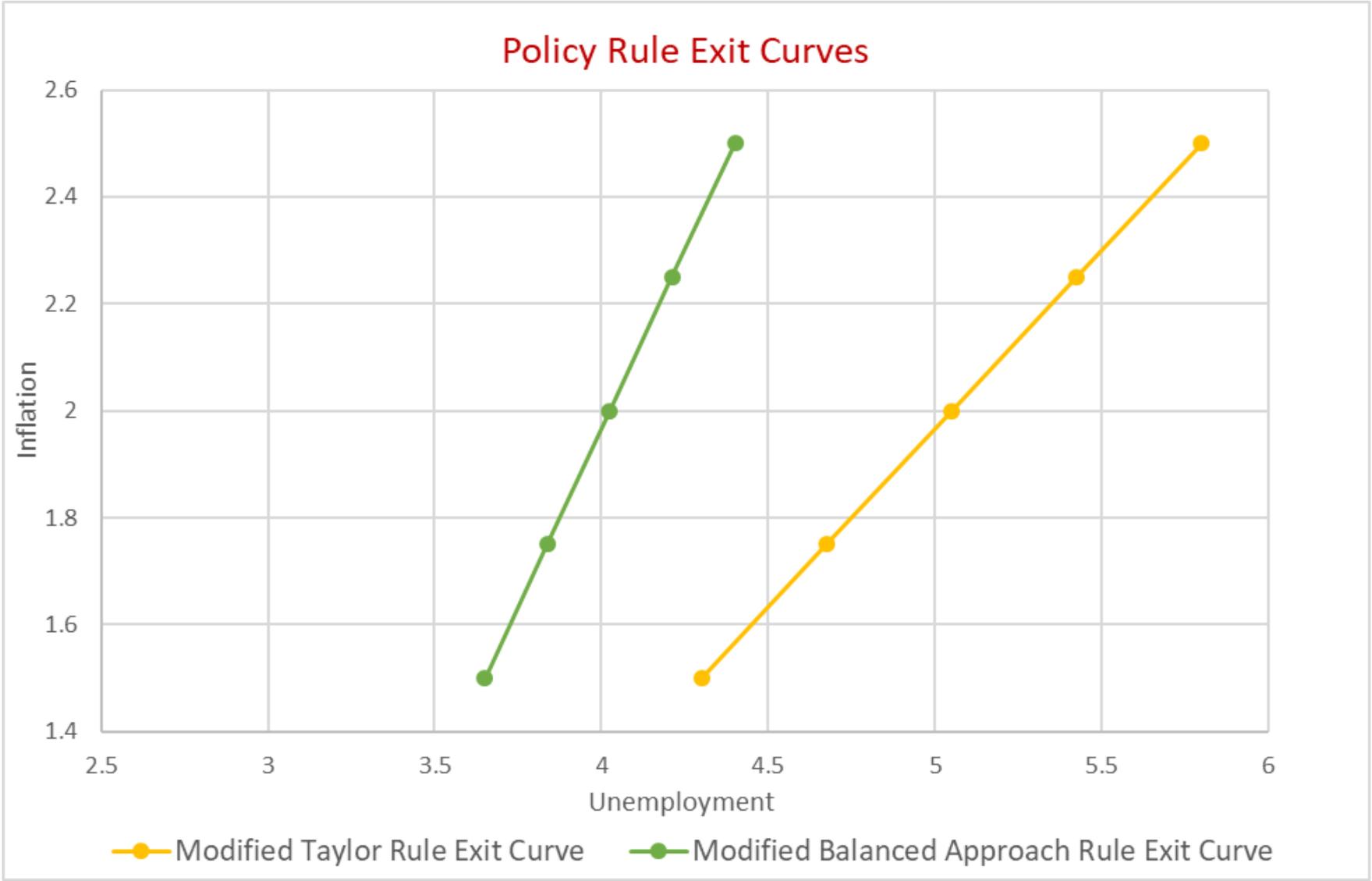
Scenarios for Policy Rule Forward Guidance

❑ Projections Curve

- SEP Projections for π_t and U_t for 2020 - 2023

- Assume Inflation Increases and Unemployment Decreases at Decreasing Rates Thereafter

❑ Average Recovery - Median SEP Projections

❑ Fast Recovery - Top of Central Tendency

- Fastest Increase in Inflation and Decrease in Unemployment

❑ Slow Recovery - Bottom of Central Tendency

- Slowest Increase in Inflation and Decrease in Unemployment

Average Recovery		
Year	Unemployment	Inflation
2020	7.6	1.5
2021	5.5	1.7
2022	4.6	1.8
2023	4.0	2.0
2024	3.6	2.1
2025	3.4	2.2
2026	3.2	2.3
2027	3.0	2.4

Average Recovery for the Modified Taylor Rule

Average Recovery for the Modified Balanced Approach Rule

Fast Recovery		
Year	Unemployment	Inflation
2020	7.0	1.5
2021	5.0	1.8
2022	4.0	1.9
2023	3.5	2.0
2024	3.2	2.1
2025	3.0	2.2
2026	2.9	2.3
2027	2.8	2.4

Fast Recovery for the Modified Taylor Rule
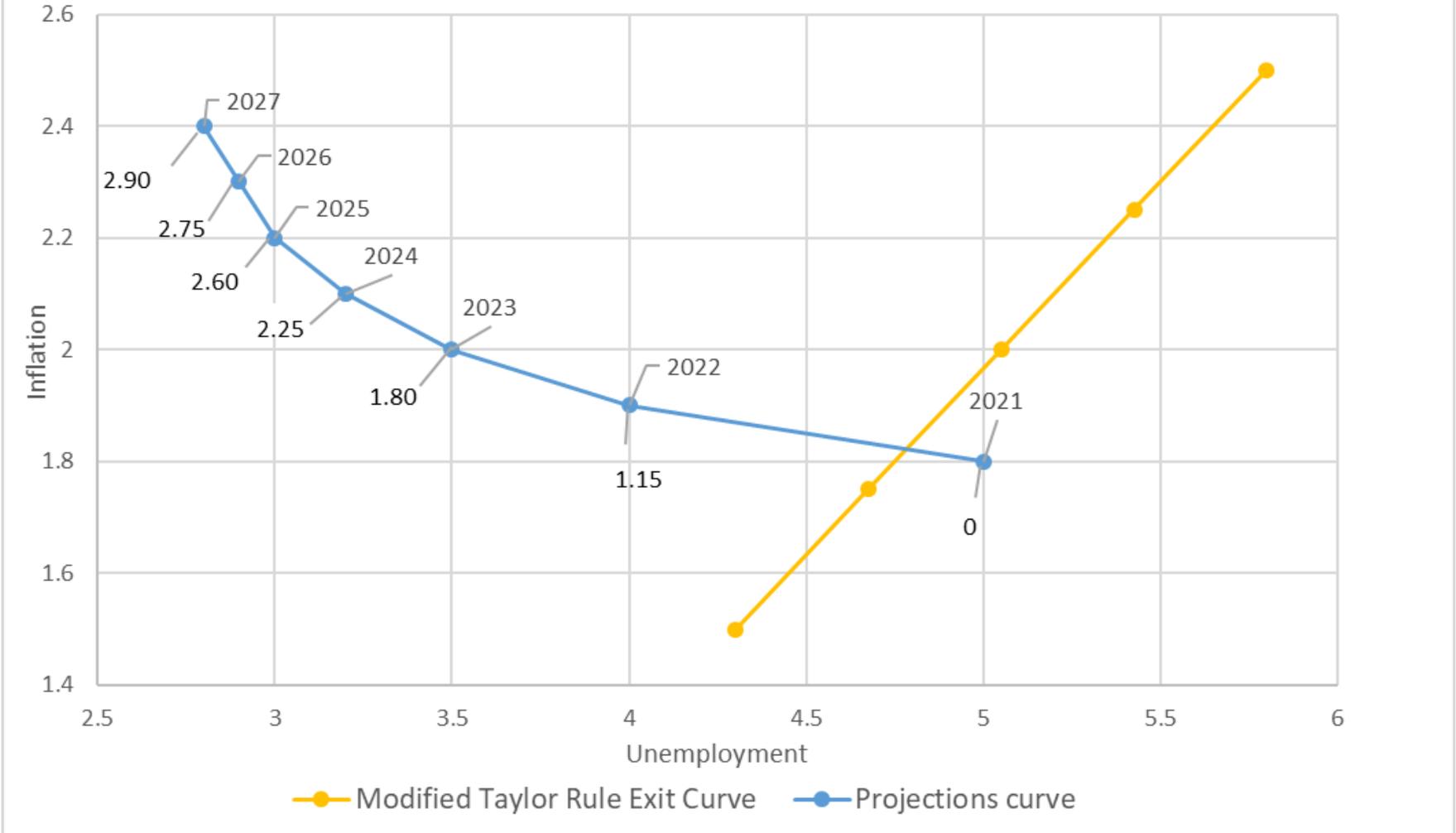
Fast Recovery for the Modified Balanced Approach Rule
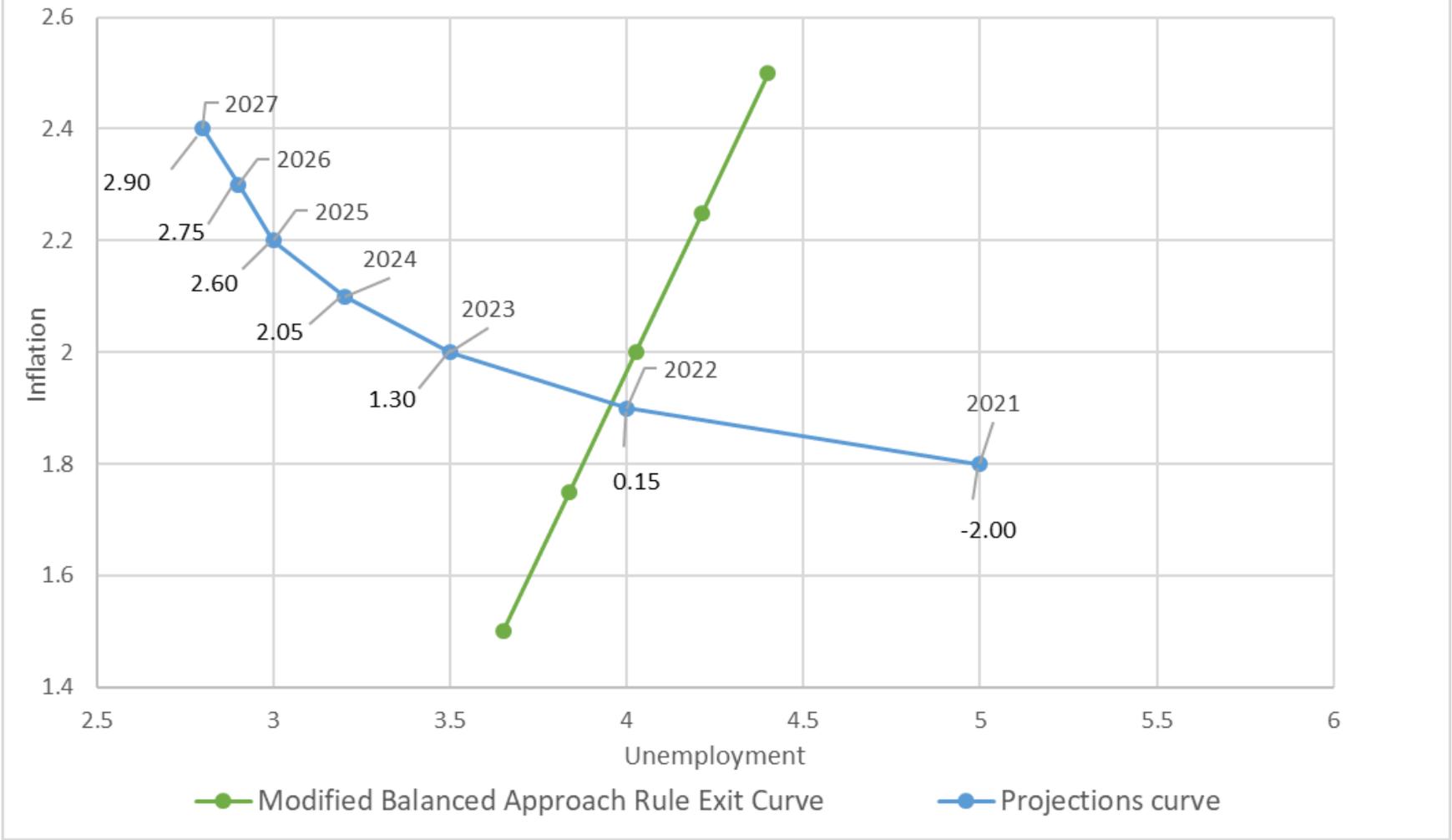
Slow Recovery		
Year	Unemployment	Inflation
2020	8.0	1.3
2021	6.2	1.6
2022	5.0	1.7
2023	4.4	1.9
2024	4.0	2.0
2025	3.8	2.1
2026	3.6	2.2
2027	3.4	2.3

Slow Recovery for the Modified Taylor Rule

Slow Recovery for the Modified Balanced Approach Rule
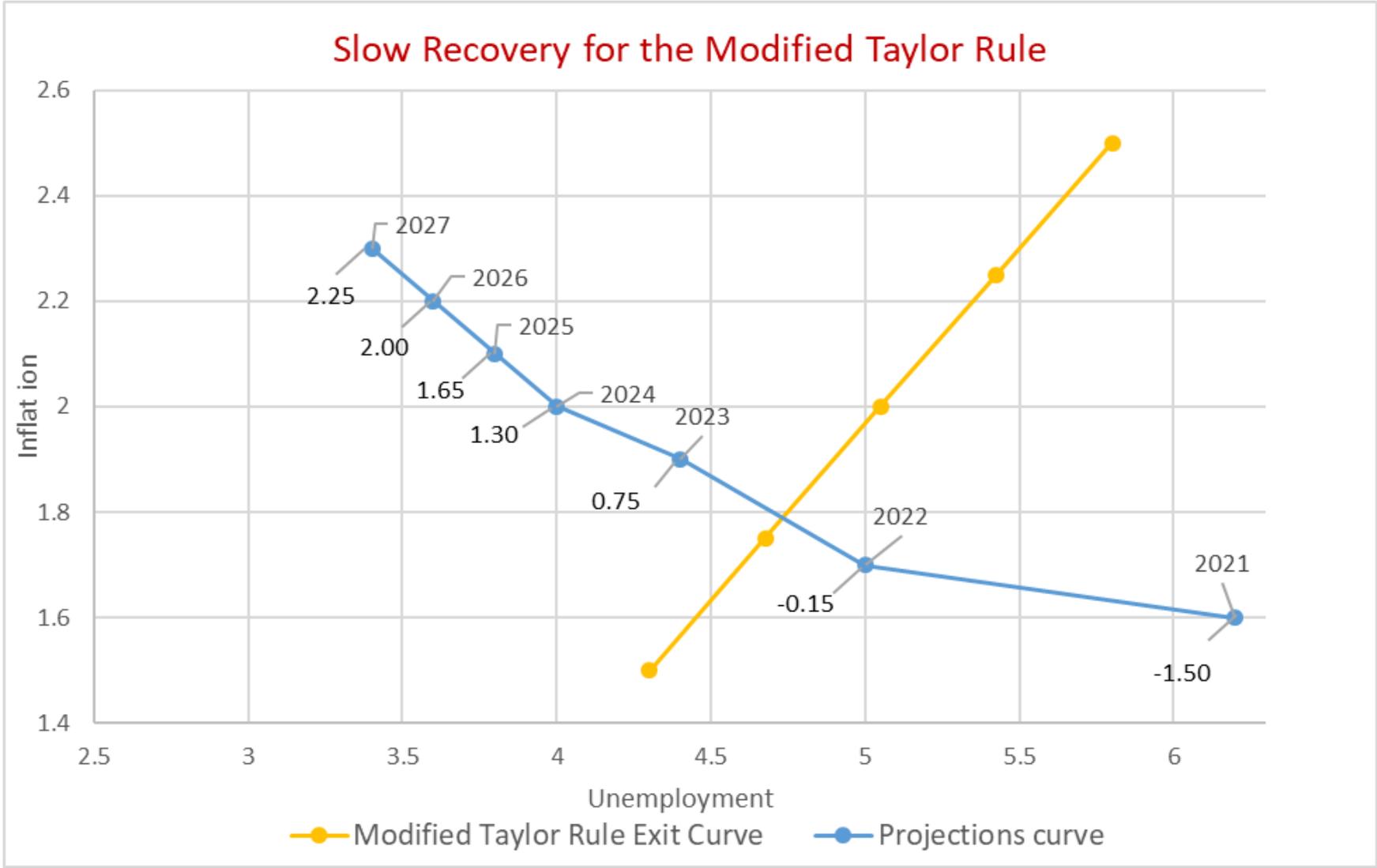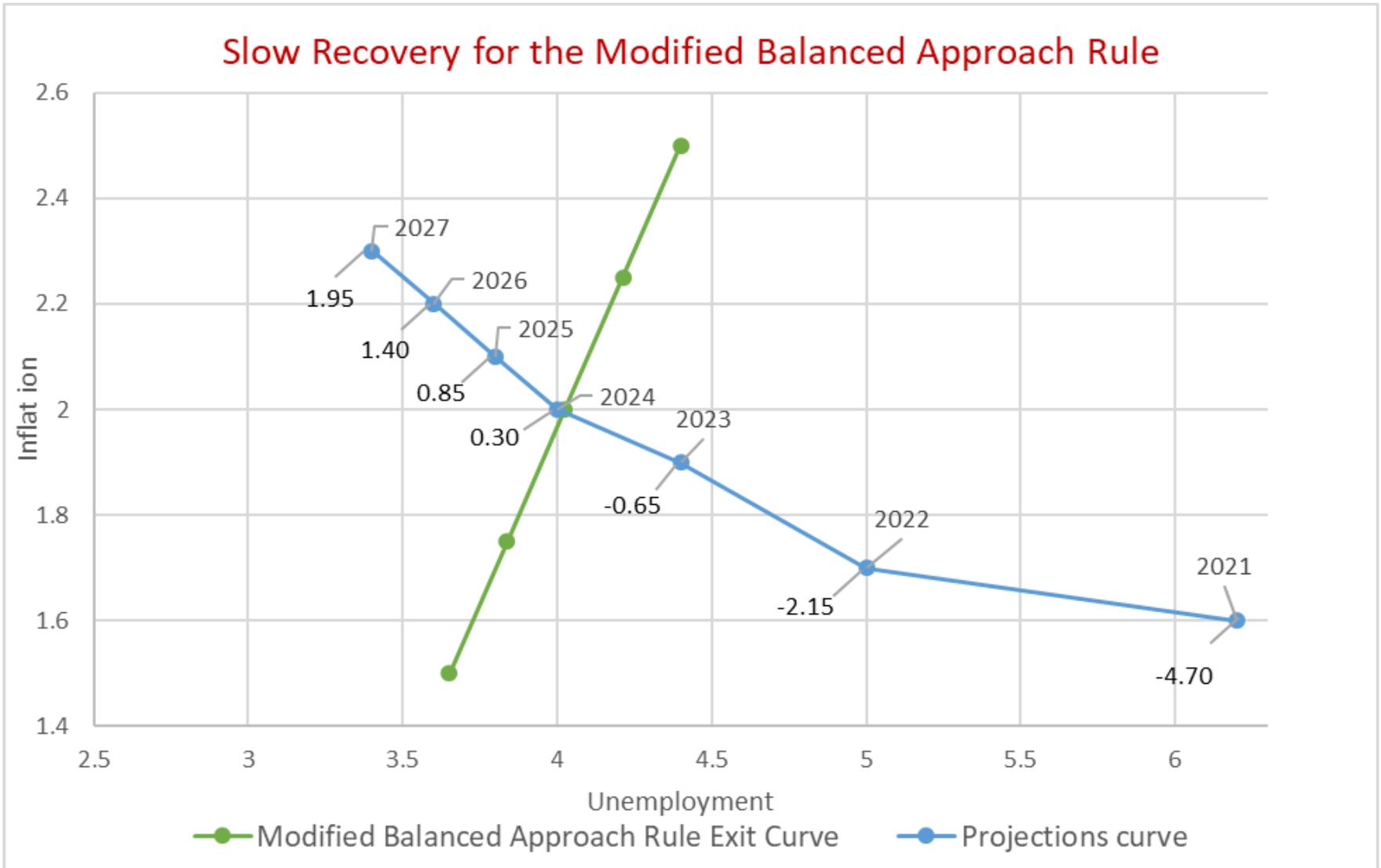
Conclusions

❑ Develop Modified Taylor and Balanced Approach Rules

- Consistent with Revised Statement
- February 2020 Monetary Policy Report
- Potential for More Predictability and Less Discretion

❑ Policy Rule Forward Guidance

- Consistent with September 2020 SEP Projections
- Removes Accommodation as Dual Mandate Goals Attained
- Scenarios for Average, Fast, and Slow Recoveries