Columbia Business School

Fiscal Rules and Discretion: Insights from Theory

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Our Work on Fiscal Rules

"Fiscal Rules and Discretion under Persistent Shocks," 2014, *Econometrica*

"Fiscal Rules and Discretion in a World Economy," 2018, *American Economic Review*

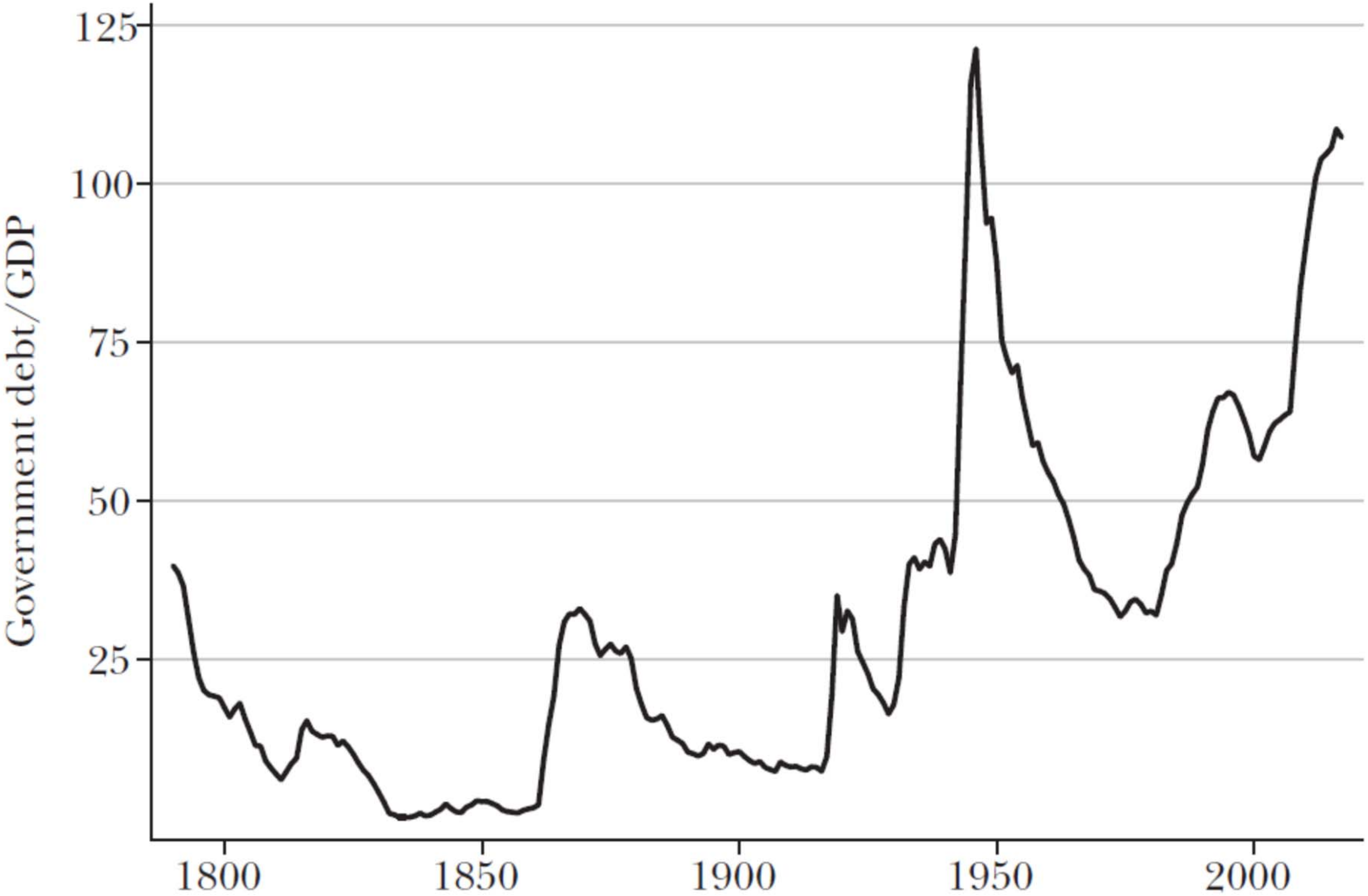
"Commitment vs. Flexibility with Costly Verification," 2019

"Fiscal Rules and Discretion under Limited Enforcement," 2019

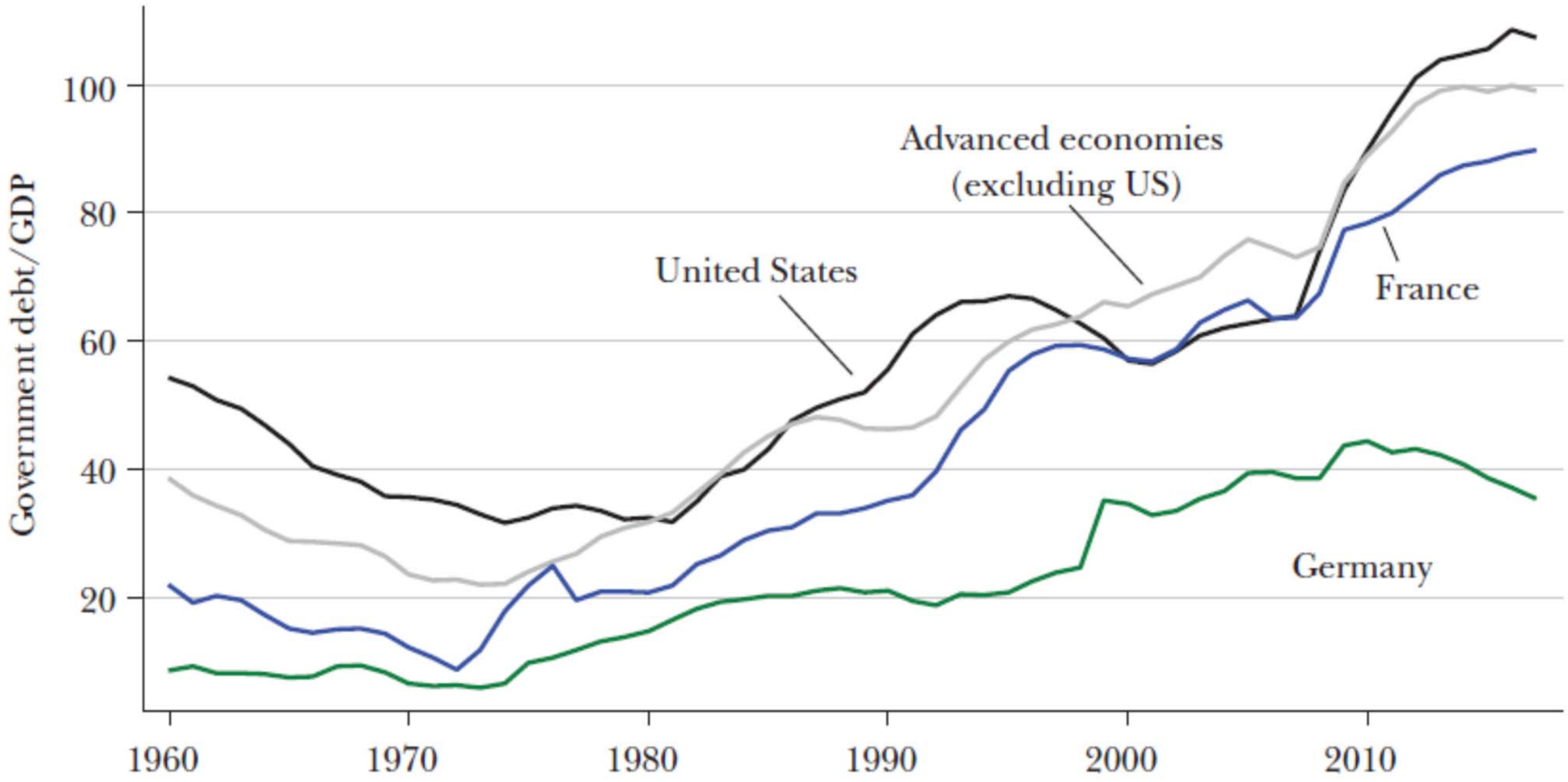
"Instrument-Based vs. Target-Based Rules," 2019

"Rising Government Debt: Causes and Solutions for a Decades-Old Trend," 2019, *Journal of Economic Perspectives*

Rising Government Debt in the U.S.



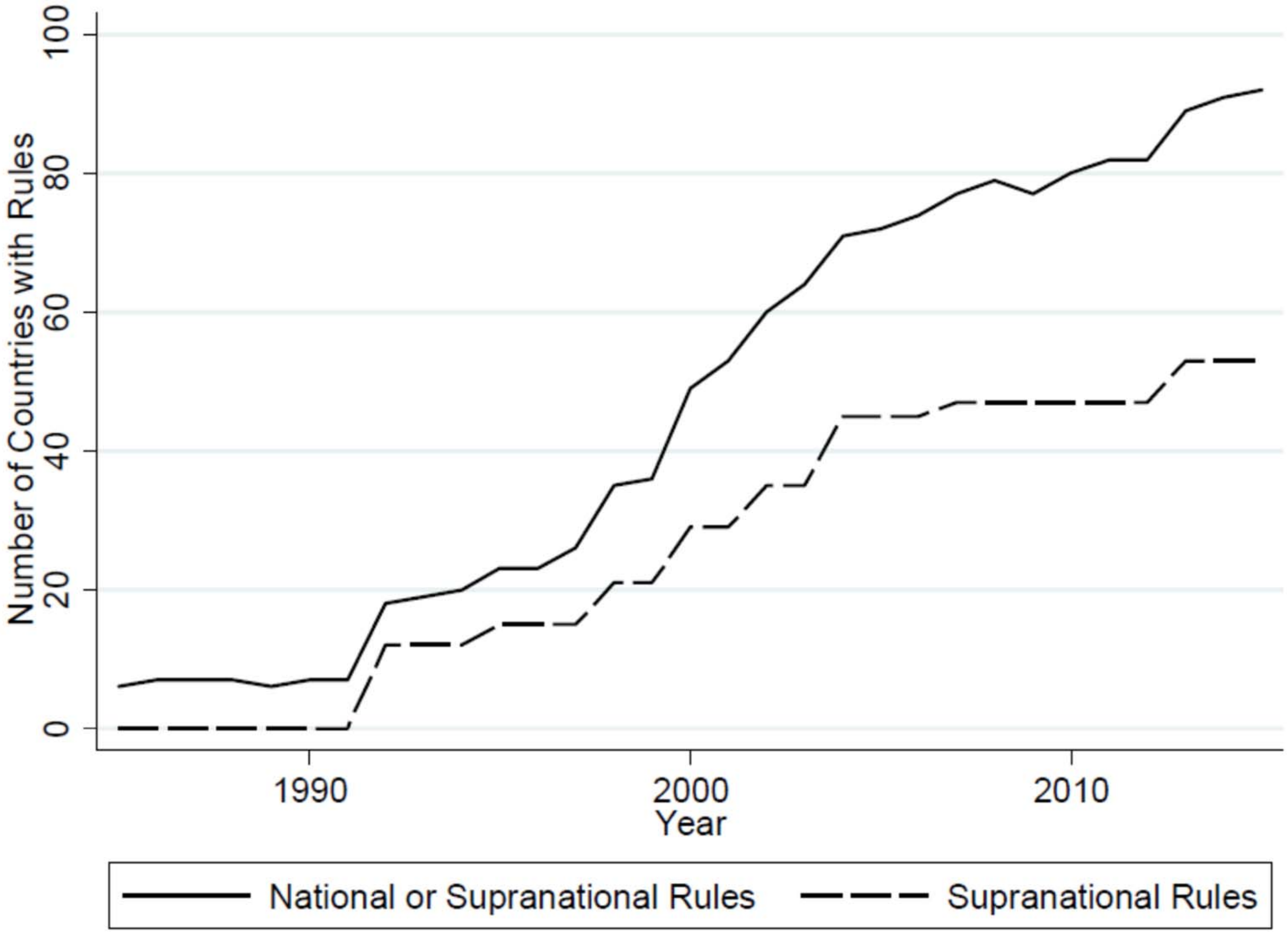
Shared Pattern across Advanced Economies



Fiscal Rules

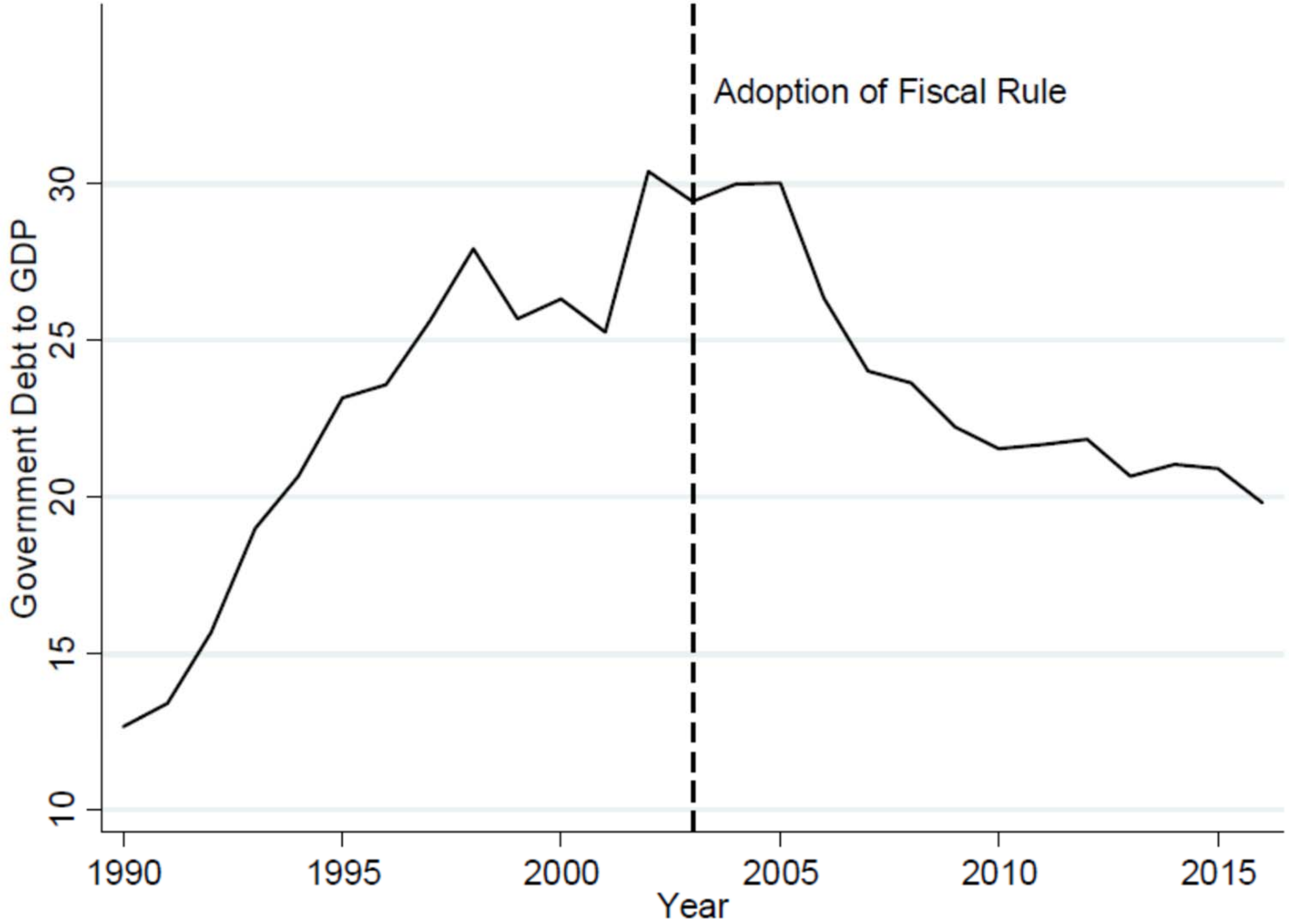
- Political explanations for rising debt justify fiscal rules
  - Current governments want to be fiscally irresponsible
  - They want future governments to be fiscally responsible
- Governments across the world have adopted fiscal rules
  - Types: expenditure, revenue, deficit, debt
  - Level: subnational, national, supranational
- Rules are an effective force against rising debt in some cases

Fiscal Rules Across the World



Data is from International Monetary Fund. A country is classified as having a fiscal rule if it is subject to an expenditure rule, a revenue rule, a budget balance rule, or a debt rule.

Adoption of Fiscal Rule in Switzerland



Government debt to GDP is gross central government debt as a percentage of GDP for Switzerland from World Bank. Date of adoption of fiscal rule is from International Monetary Fund.

Commitment vs. Flexibility

- Commitment vs. flexibility tradeoff
  - Commitment: Tighter rules limit present bias and debt accumulation
  - Flexibility: Tighter rules reduce flexibility to unexpected shocks

- Two modeling approaches to tradeoff
  - #1: Restricted rule structure → Determine optimal stringency
  - #2: Unrestricted rule structure → Determine optimal stringency and form
    - Distinguish between contractible and non-contractible fiscal info
    - Approach: Mechanism design with private government information

- Advantage of each approach
  - #1: Analysis feasible in rich political-economic framework
  - #2: Bird's eye view of optimal structure
    - Global vs. partial reform
    - Decompose factors behind different rule features

Optimal Design of Fiscal Rules

- Conditioning on public information
- Enforcement
- Cross-country coordination
- Escape clauses
- Instrument-based vs. target-based criteria

How to Condition on Information

- Measure **average** optimal primary deficit $d^{Forecast}$
  - Can condition on GDP, cycle, etc.

- When is $d^{Forecast}$ the optimal rule with deficit limit $d^* = d^{Forecast}$?
  - If deficit bias is severe and government borrows maximally
    - Government can choose any deficit below $d^{Forecast}$, but chooses not to

- Otherwise, optimal rule is more relaxed: $d^* > d^{Forecast}$
  - d* is optimal <u>on average</u> whenever government chooses it
  - Example: Government wants to borrow 2 percent more than optimal
    - Implies d* chosen whenever social needs exceed d* - 2
    - Average social needs conditional on exceeding d* - 2 should be d*
  - d* higher if bias low or shocks volatile

Challenges

- How do we measure average optimal primary deficit $d^{Forecast}$?
  - Need appropriate normative model of social needs
  - Note: If goal is debt stabilization → $d^{Forecast}$ = -(avg interest expense)
  - Dependence on cycle poses challenges

- Could additional information help?
  - Optimal rule could depend on whether past policies agreed with targets
  - How to provide dynamic incentives challenging in practice
  - Perceptions of immediate and distant future can differ
    - Government wants to spend in immediate future
    - Does not want future governments to spend in distant future

- How do we measure the deficit bias?
  - Can compare historical deficit absent rule to normative benchmark
  - More sophisticated approach conditions bias on state of economy

Design of Fiscal Rules

- Conditioning on public information
- Enforcement
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How to Address Lack of Enforcement

- Governments comply with rules 50 percent of the time
  - Formal enforcement: Excessive Deficit Procedure in EU
  - Informal enforcement: Temporary breakdown of fiscal discipline

- Under lack of enforcement, d* should be more relaxed
  - Also, if extreme shocks unlikely, sanctions weak → Occasional breach
  - Inefficient to impose a rule lax enough that it can always be respected

- How to calibrate d*
  - If rule never breached, corresponds to tightest enforceable rule
  - Under probabilistic breach, d* weighs costs and benefits
    - Benefit of tightening d*: More discipline
    - Cost of tightening d*: More likely breach and sanctions
    - d* above average social needs conditional on binding limit
      - Additional benefit of relaxing limit is fewer costly sanctions

Challenges

- Determining whether rules have been broken is difficult
  - Off-balance sheet liabilities can grow
  - Need for independent fiscal councils
- Credibility of penalty mechanism is critical
  - Punishment through austerity measures hard to enforce
  - Credible punishments require a constituency that gains under penalty
    - Rule abandonment for the next administration more credible
- Private sector response to rule breach should be considered
  - Higher interest spreads in response to rule breach is a market penalty

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Supranational Rules

- More than half of fiscal rules are supranational
  - Many countries have national and supranational rules
- Rationale for supranational rules: Tragedy of the Commons
  - Individual borrowing decisions affect regional interest rates
  - High borrowing by one country risks future inflation in region
  - Future default by one country can have contagion effect on region
- Can frame as commitment vs. flexibility plus externality

Challenges

- Imposition of uniform threshold may be inappropriate
  - Countries differ on bias, fiscal needs, and benefit of flexibility
  - Conditioning on market signals (spreads) potentially more appropriate

- Direction and magnitude of externality is ambiguous
  - Tight rules can reduce regional interest rates, promote irresponsibility
  - Countries with more stringent national rules impose externality on others
    - This force pushes for even tighter supranational rules

- Issues with enforcement
  - Collective action problem and disagreement
  - External authority ideally less subject to political pressure

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Escape Clause

- Costly review process to break rule
  - Decision by independent fiscal council, legislature, or referendum
  - Example of reasons: natural disaster, financial crisis, accounting change

- Comparison to enforcement
  - Like enforcement, costly to trigger, deters government from spending
  - Unlike enforcement, costs directly related to evaluation
  - Useful even in absence of enforcement issues

- With escape clause, deficit limit d* can be tighter
  - Allows more flexibility in response to extreme conditions
  - Optimal if review is cheap, shocks volatile, deficit bias severe
  - d* above average social needs conditional on binding limit
    - Additional benefit of relaxing limit is fewer costly reviews on margin
  - Main challenge: Interpretation of events subjective, costly delays

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Instrument-Based Rules

- Rules can constrain different instruments of policy
  - Example: tax rate/spending rules, “golden rules” on capital spending

- Rationale for different thresholds
  - Slacker rules for tools associated with volatile needs (e.g., military)
  - Slacker rules for tools associated with less bias (e.g., capital)

- Multiple layers optimal if complementarities in instruments
  - e.g., forecasted deficit rule on top of tax rate/spending rule
  - Optimal if temptation to spend rises if tax rates low

Instrument-Based vs. Target-Based Rules

- Target-based rule focus on outcome of policy
  - Example: deficit to GDP ratio, tax revenue

- Comparison to instrument-based rule
  - Directly ties incentives to economic goals
  - More instrument discretion to respond to macro conditions
  - Macro surprise risk: Penalties for rule breach despite best efforts
  - Optimal rule balances this risk against benefit of reining in bias
    - Rule admits threshold outcome beyond which penalties ensue
    - Target (average) outcome below threshold

- When are target-based rules better?
  - If government has sufficiently superior information about macro risks
  - If government bias not very severe
  - If penalties for rule breach are very severe, impose lots of discipline
  - Hybrid rules dominates either (e.g., Switzerland)
    - Instrument rule threshold, switches to target when violated

Summary

- Fiscal rules counteract rise in debt driven by political factors

- Commitment vs. flexibility tradeoff with many considerations
  - Information dependence
  - Enforcement
  - Cross-country coordination
  - Escape clauses
  - Instrument vs. target criteria

- Open questions
  - How do we reform the budget process to complement fiscal rule?
  - How do fiscal policy and rules impact political forces behind bias?
  - How can governments be compelled to adopt effective fiscal rules?