

JUNE 5, 2019

Monetary Policy Strategies for the Federal Reserve

Discussion of Practical Considerations

Sharon Kozicki

ADVISOR TO THE GOVERNOR
BANK OF CANADA



The views expressed in this presentation are solely those of the presenter and may differ from official Bank of Canada views. No responsibility for them should be attributed to the Bank.

Conclusions of Lars Svensson's presentation

- Argues forecast targeting is a better general strategy
- Document defines specific strategies using loss functions
 - Clarifies difference between longer-term strategies and setting (the policy rate) to achieve objectives
- Among specific strategies: average inflation targeting and price-level targeting have some advantages if...
- Average inflation is a smaller change than price-level targeting, but still need to choose:
 - Averaging period for inflation
 - Temporary or permanent
 - Relative importance of inflation and employment objectives in loss

Conclusions of Lars Svensson's presentation

- Argues forecast targeting is a better general strategy
- Document defines specific strategies using loss functions
 - Clarifies difference between longer-term strategies and setting (the policy rate) to achieve objectives
- Among specific strategies: average inflation targeting and price-level targeting have some advantages if...
- Average inflation is a smaller change than price-level targeting, but still need to choose:
 - Averaging period for inflation
 - Temporary or permanent
 - Relative importance of inflation and employment objectives in loss

Comments
expand on LS,
emphasizing
practical
considerations

- Focus on specific strategies on inflation within a dual mandate framework
- With a lower bound to interest rates—evaluate:
 - Robustness
 - Time consistency
 - Credibility
- Some advantages to temporary variants of price-level targeting and average inflation targeting

Average inflation targeting (AIT) and price-level targeting (PLT)

Good

- Have automatic stabilizing benefits in some models assuming expectations behave “appropriately”
- Achieve inflation close to target

But

- Are not robust
 - Under some expectations assumptions, advantages of PLT decrease and can be worse than flexible IT
 - Whether PLT is better than FIT can depend on the model
- Are time inconsistent
 - Would policymakers want to tighten if inflation is below π^T and unemployment is rising, but prices are too high relative to target.

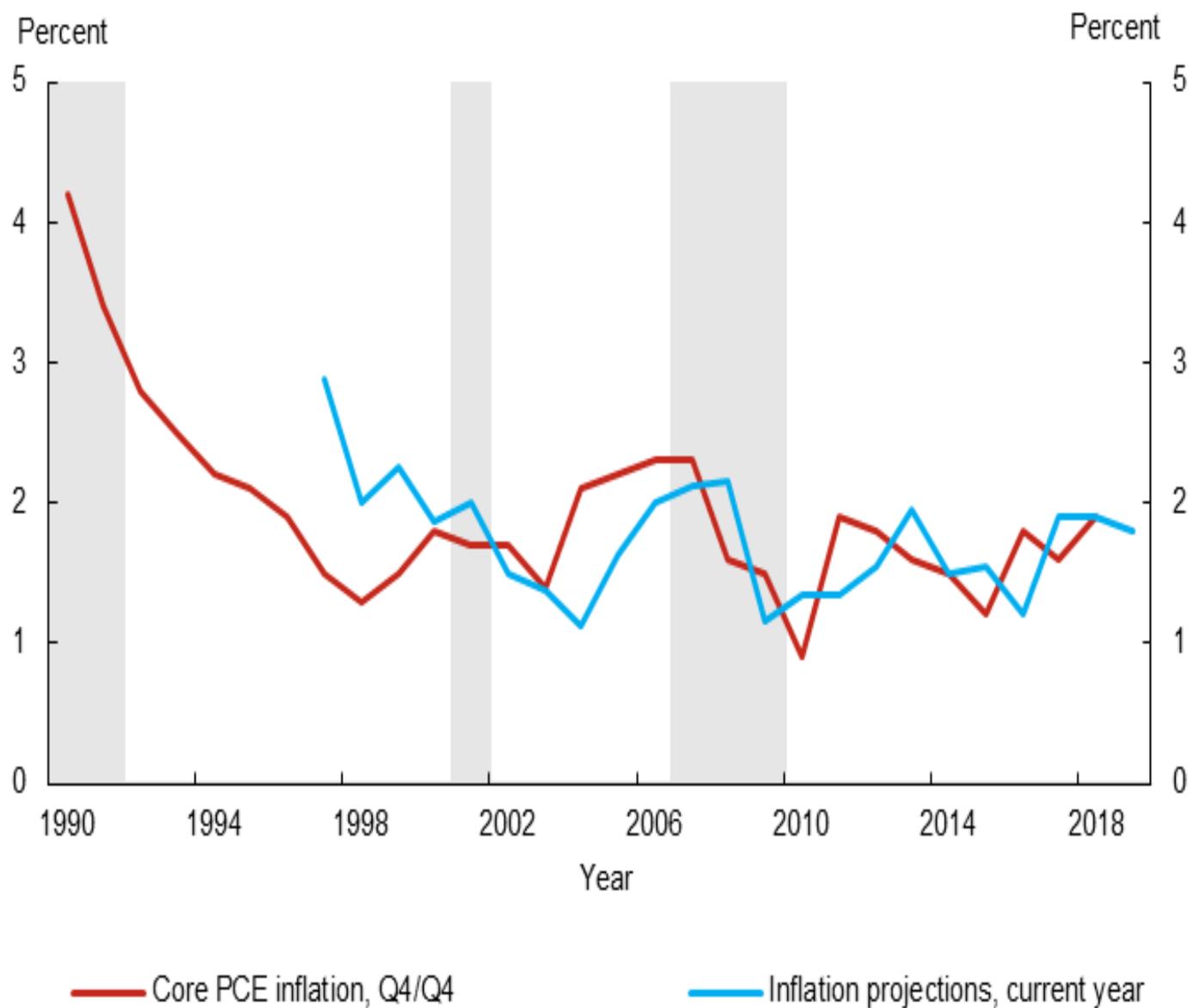
Key questions: Can central banks

- engineer outcomes as in models given uncertainty?
- manage inflation expectations to behave like frequently assumed?

FOMC forecasts lag inflation

Short-run expected and actual inflation

Percentage change



Terminology

- Inflation (π)
- Inflation target (π^T)
- Long-run expected inflation ($LRE\pi$)
 - anchors inflation expectations
- Expected inflation ($E\pi$)
 - short-run expected inflation moves more if long-run expectations shift in the same direction
- Average inflation ($A\pi$)
 - An outcome—what has inflation been on average
- π^*
 - In technical documents, a term in policy functions that may represent the inflation target

Temporary PLT/AIT means...

- Away from the lower bound to interest rates, the baseline framework remains in place
- Once constrained by the lower bound put some weight on reversing past misses—for example, don't increase policy rates until an average inflation measure is equal to or greater than π^T
 - At least some of the specified period has to be in the past

Reasons to consider temporary PLT/AIT

- Even if expectations don't behave "appropriately"…
 - More robust and less-likely time inconsistent than PLT/ALT
 - Achieve $A\pi$ closer to π^T , helping accountability
 - Can help the public understand policy at the lower bound
 - May be a good risk management tool given uncertainty

Key issue:
Will credibility
be maintained
if $A\pi \neq \pi^T$?

Credibility: $LRE\pi = \pi^T$

Theory: The lower bound to policy rates introduces an asymmetry

- $A\pi < \pi^T$ under FIT
- This could lead $LRE\pi$ to drift downward away from π^T

Practical considerations:

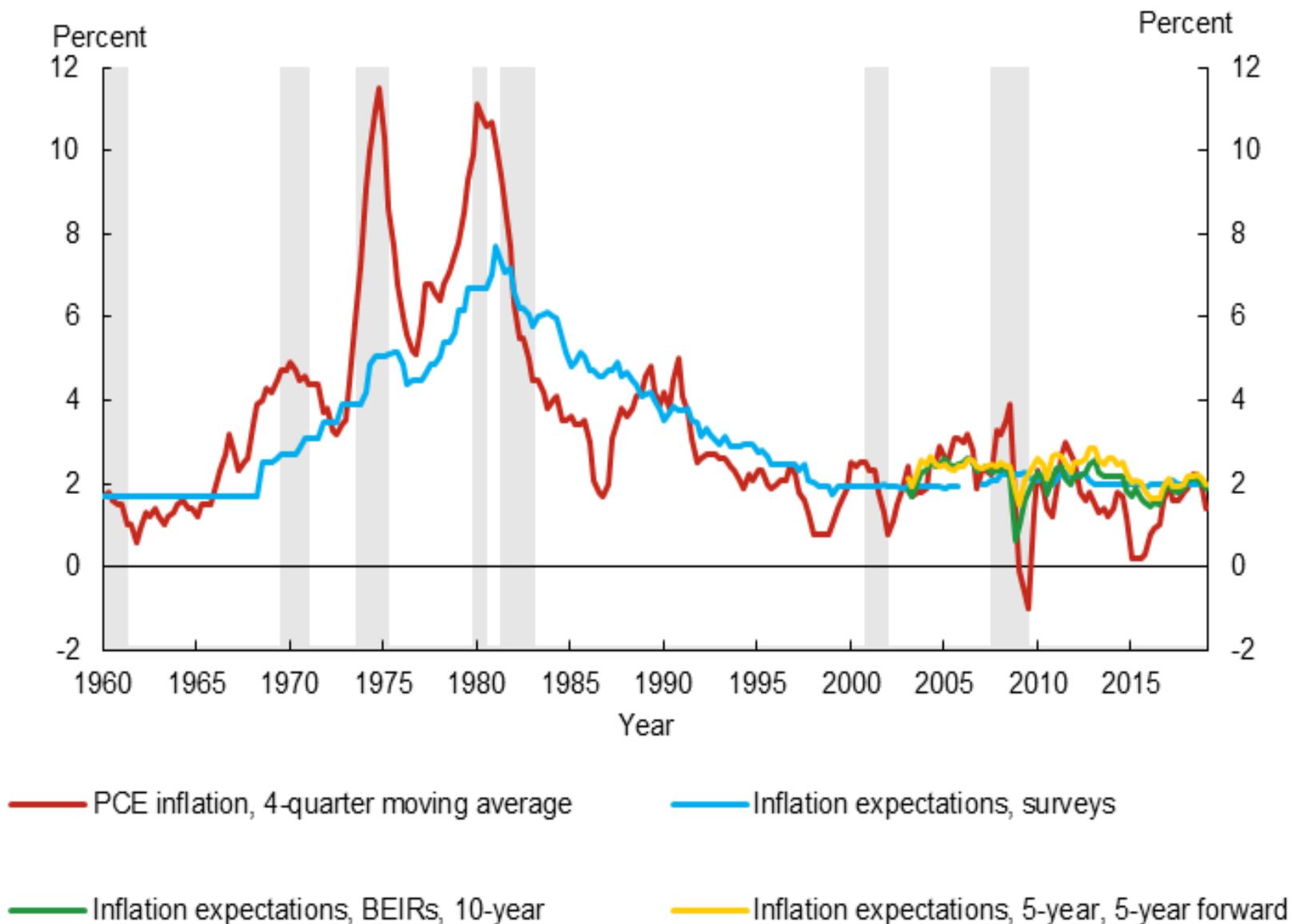
- $LRE\pi$ lags inflation and at longer horizons, the sensitivity to inflation gaps declines
- With an explicit π^T in place, $LRE\pi$ may be less sensitive to π or $A\pi$
- But, how to measure $LRE\pi$?

The Federal Reserve has earned credibility...

$$\text{LRE}\pi = \pi^T$$

Long-run expected and actual inflation

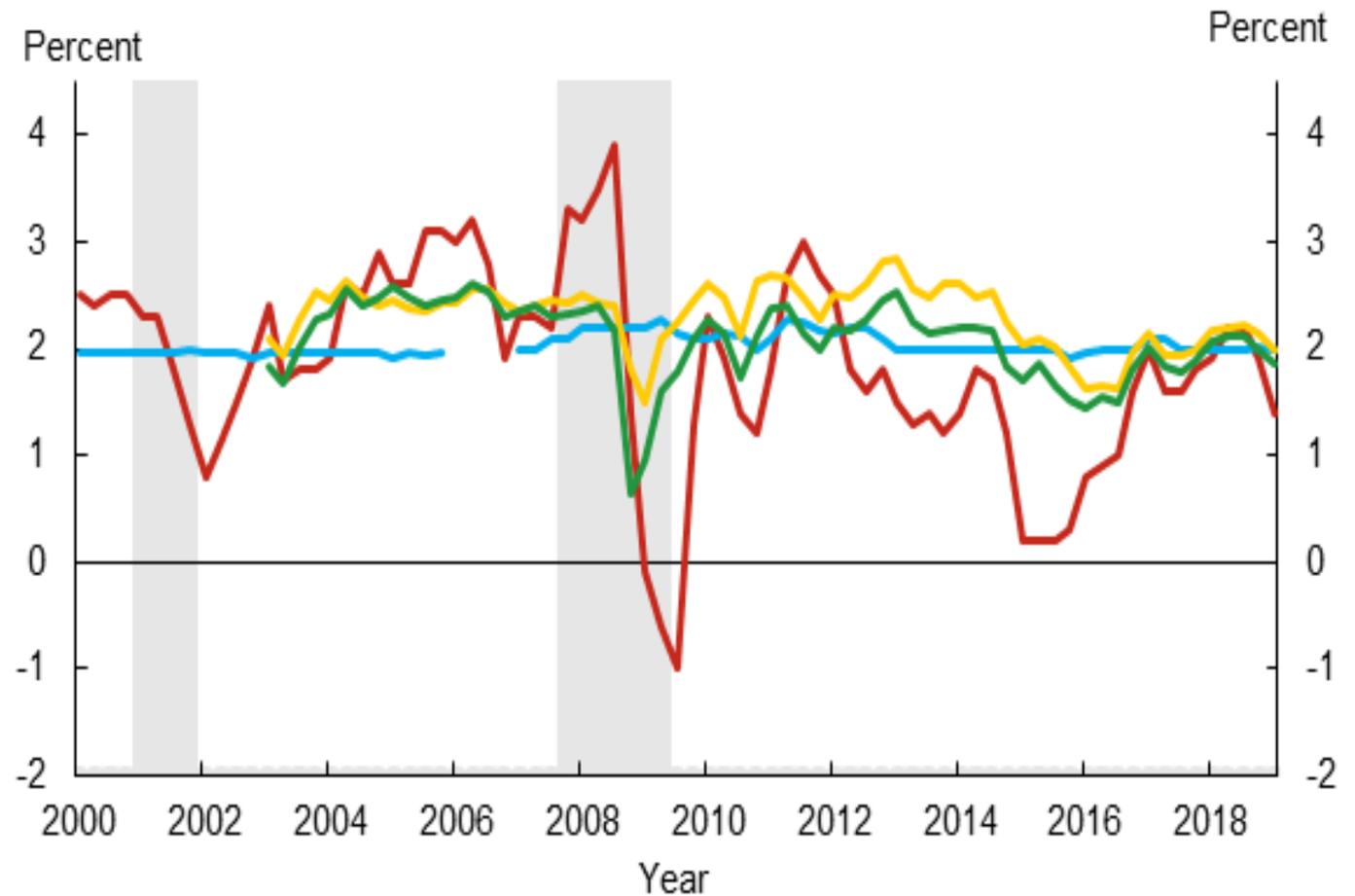
Percentage change



How to
measure
 $LRE\pi$?

Long-run expected and actual inflation

Percentage change



- PCE inflation, 4-quarter moving average
- Inflation expectations, surveys
- Inflation expectations, 5-year, 5-year forward
- Inflation expectations, BEIRs, 10-year

Temporary
PLT/AIT
policies bring
 $A\pi$ closer to
 π^T , improving
credibility

- Temporary PLT/AIT delays raising the policy rate from the lower bound
 - ... increasing the likelihood that inflation would overshoot the target
 - Small overshoots not a large concern
 - would have to be quite large or persistent to lead to an outsized drift of $LRE\pi$.
 - policy can react
 - could contribute to bringing $A\pi$ closer to π^T
- Temporary PLT/AIT may increase the buildup of financial imbalances

Temporary PLT/AIT as risk management under uncertainty

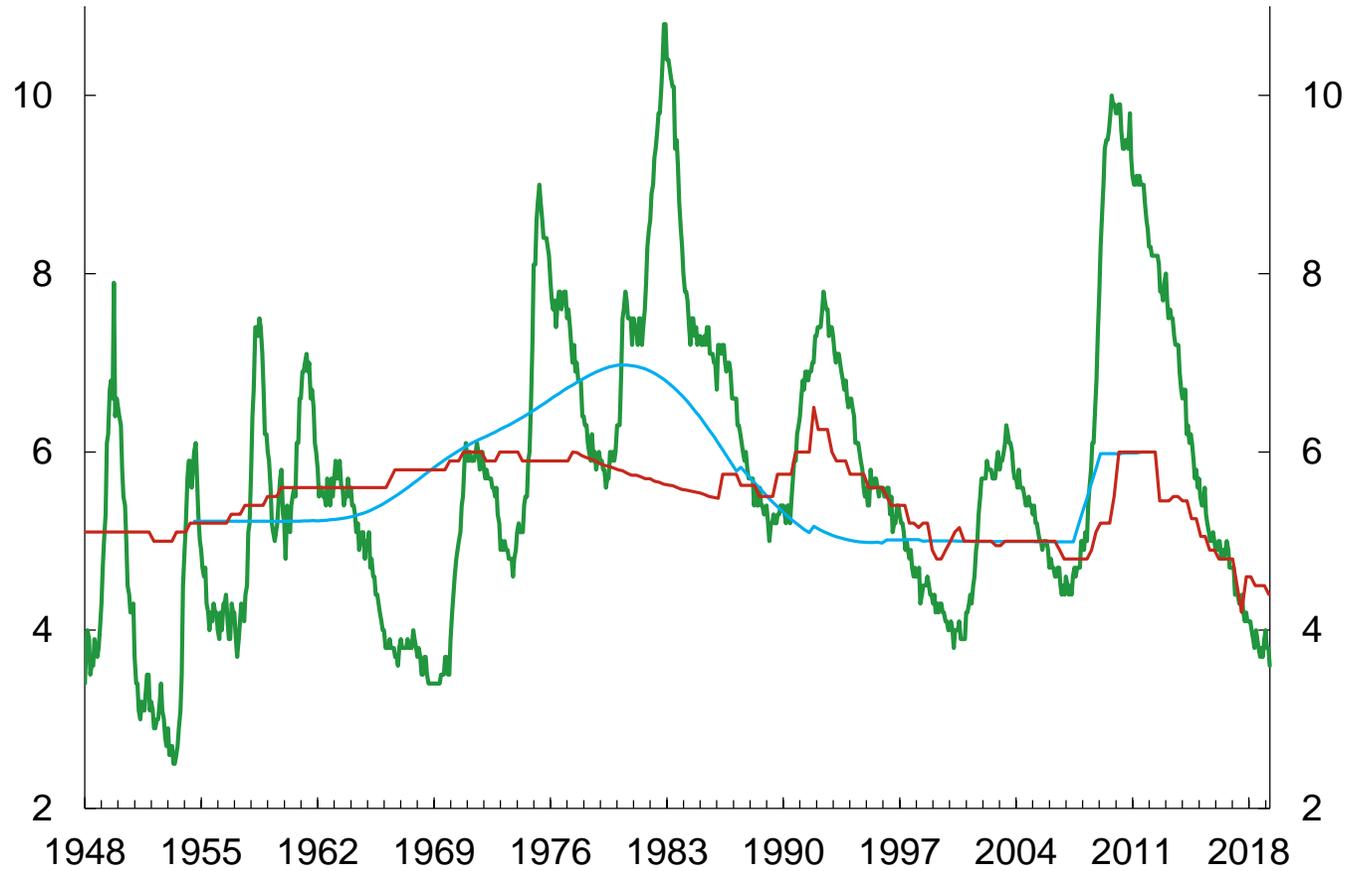
- May balance risks associated with changes in the relationship between unemployment and inflation
- At the lower bound it is better to accept risks of unexpectedly higher inflation than unexpectedly lower inflation

Estimates of the NAIRU move a lot over time, and are revised a lot

NAIRU estimates and unemployment

Percentage change

Percent



— Unemployment, rate — NAIRU, 2012 Board staff estimates — NAIRU, real-time estimates

Temporary
PLT/AIT can
improve
understanding
of policy rate
decisions

- At the lower bound, the policy rate appears to be insensitive to data
- Providing necessary conditions for policy rate increases improves transparency on data dependency
- Flexibility is necessary
 - Can consider generalizing concept
 - What if unemployment is high and inflation is temporarily above target (eg. UK experience)?
- Communications challenges—not a promise for action

Addenda: π^* as an operational guide in technical analysis

- In research, have $LRE\pi = A\pi$, but if this is true in temporary PLT/AIT, may need inflation to exceed the target in non-lower bound periods.
- In a model, π^* in a policy rule may differ from the target if a different value is required to achieve an outcome where long-run expectations are anchored on the target
 - Other adjustments to the rule could also work
 - Mertens and Williams 2019
 - Bernanke, Kiley, Roberts 2019
- While policy rules are useful in models to approximate behaviour of policy-makers, actual decisions are not determined by mathematical expressions
 - Model limitations and model uncertainty, data uncertainty, parameter uncertainty

THANK YOU