Inflation Targeting After 28 Years: What Have We Learned?

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Outline

- Where are we now?
- How did we get here?
- Key elements of inflation targeting
- Measures of success
- Misdirected criticism
- Two questionable ideas
- Three more promising ideas
- Where does this leave us?

Three Main Messages

1. Inflation targeting has been exceptionally successful and surprisingly robust
2. Two further improvements might be considered, but the threshold for significantly modifying it is very high
3. Norway is already regarded as one of the most advanced inflation targeters in the world – the IMF's poster child

Where Are We Now?

- Inflation targeting (IT) as a growth industry
- 9 Advanced Economies (AEs) and 21 Emerging Market Economies (EMEs) are now inflation targeters
- AEs have all gravitated towards a 2 – 2 ½ per cent target based on the CPI
- Some economies are “closet” inflation targeters (e.g. ECB)
- Only three countries have ever “abandoned” IT – but in order to join EMU

Where Are We Now? (cont’d)

- Growing body of evidence showing IT improves economic performance
- IT was stress-tested during the crisis and showed its resilience
- Several changes have been proposed following the crisis
- Some involve tinkering at the edges, others are more substantive
- But there’ve been no material changes since the early 2000s
- Is this as good as it gets? “Is this the end of monetary history?”

How Did We Get Here?

- Considerable scepticism about IT in the early years
- New Zealand and Canada viewed as renegades
- Other AEs and the IMF were extremely critical
- Most early adopters driven by expediency vs. conviction
  - Ulterior motives of the Government of Canada in 1991
  - Demanding terms of engagement from the BoC
  - Unsettling initial simulations from the BoC

How Did We Get Here? (cont’d)

- Gradual but reluctant adoption of IT by other AEs
- Often preceded by crises or major structural upheavals
- Growing signs of success over time – But was it just luck?
- Grudging acceptance of IT by the IMF, but only for AEs
- EMEs advised “don’t try this a home”
- IMF now an enthusiastic IT promoter – even for EMEs
- Norway as one of the IMF’s “poster children”

Key Elements of Inflation Targeting

- Inflation Targeting - a very simple and compelling concept
  - Announce an explicit and mutually agreed objective
  - “Say what you are going to do, and do what you say”
- Supported by two critical beliefs:

  (1) Central banks should only be asked to do what they are able to deliver

  (2) “Price stability is the best contribution monetary policy can make to the economic welfare of citizens”

Key Elements of Inflation Targeting (cont'd)

- End of the antiquated strategy of secrecy and surprise interest rate changes
- Move towards greater transparency, greater discipline, and greater accountability
- Designed to work with markets and anchor expectations
- Operational independence for central banks also a critical factor
- It all seems so obvious now …

How Do We Measure Success?

- Comparison of performance pre and post targeting not easy
- Great Moderation and the Great Recession as complicating factors, but we can look to:
  - (1) Testimonials from monetary authorities themselves
  - (2) Evidence of improved performance in Canada
  - (3) Similar evidence drawn from other countries
  - (4) Lower and less variable inflation …
  - (5) Better anchored inflation expectations

Chart 1 - Canada's inflation performance has improved

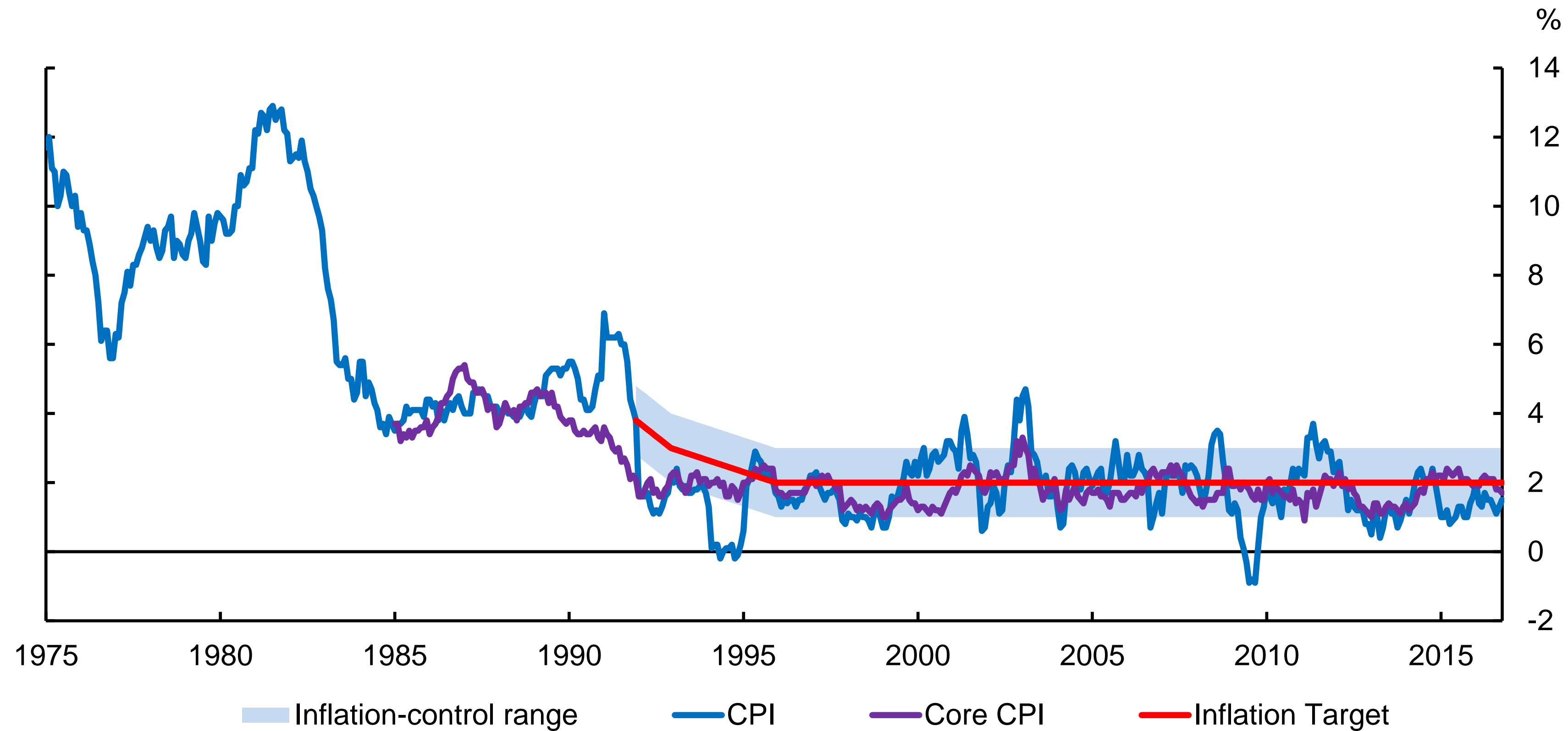


Table 1 –The performance of other variables is also better

	Average (per cent)			Standard deviation		
	1975M1 to 1991M1	1991M2 to 2016M9	1995M1 to 2016M9	1975M1 to 1991M1	1991M2 to 2016M9	1995M1 to 2016M9
CPI: 12-month increase	7.1	1.9	1.9	2.9	1.1	0.9
Real GDP growth[a]	2.8	2.4	2.4	3.8	2.6	2.5
Unemployment rate[b]	8.9	8.0	7.5	1.7	1.5	1.0
3-month interest rate[c]	10.9	3.5	3.0	3.0	2.2	1.9
10-year interest rate	10.7	4.9	4.3	2.0	2.2	1.8

Note: The table incorporates real GDP data through the second quarter of 2016.

a. Annualized quarter-over-quarter growth rate for quarters within the time period. Real GDP data incorporate the latest historical revisions of the Canadian System of National Accounts for quarters starting in 1981Q1. Annualized quarter-over-quarter growth rates prior to 1981Q2 are based on the real GDP series that was terminated with the introduction of the 2012 historical revisions.

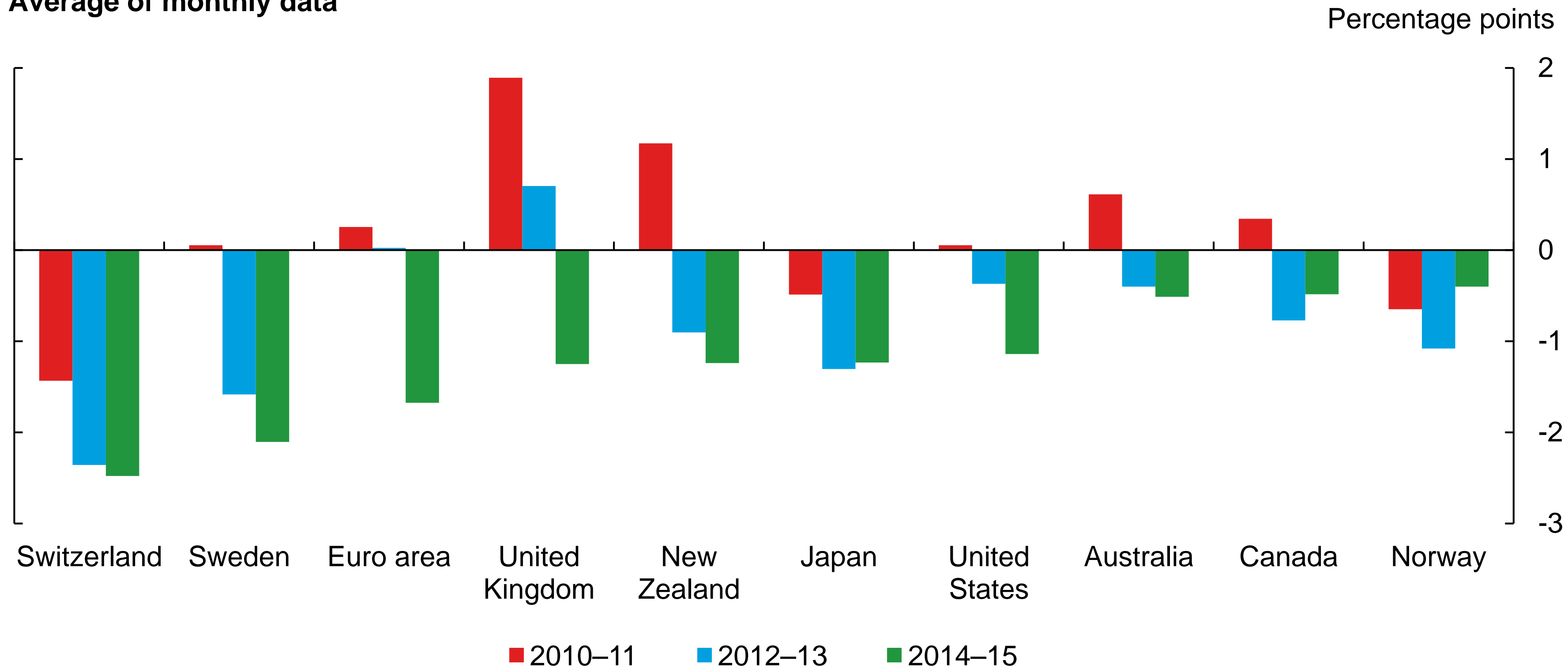
b. Unemployment data start in 1976M1, owing to the introduction of a new labour force survey at that time.

c. The 3-month interest rate refers to the 3-month prime corporate rate.

d. Owing to data availability, prior to June 1982, the 10-year interest rate refers to the yield of government bonds with maturations longer than 10 years; after June 1982, it is based on the 10-year government bond yield from Statistics Canada.

Sources: Statistics Canada and Bank of Canada calculations

Chart 2 - Better performance in some advanced economies than in others



Note: Deviation of total inflation is calculated based on personal consumption expenditures inflation for the United States, Harmonised Index of Consumer Prices inflation for the euro area and CPI inflation for all other countries. A time-varying inflation target is used in the calculations for Japan (i.e., a 2 per cent target since January 2013; a 1 per cent target from February to December 2012, and a 0 per cent target before February 2012).

Sources: National sources via Haver Analytics

Last observation: December 2015

How Do We Measure Success? (cont’d)

- But if IT is so good, why are so many IT economies still struggling after the financial crisis?
  - Important not to confuse the framework with the outcome
  - Faced extraordinary and unfavourable circumstances
  - Unfair burden placed on monetary policy
- Central banks showed remarkable resourcefulness
- IT enhanced capacity to respond to the crisis
- There was no Keynesian or Monetarist style revolution

Misdirected Criticism

- Two popular criticisms after the crisis:

  (1) IT's success caused the Great Recession

  (2) Low inflation rendered monetary policy ineffective

1) Did low interest rates and the search for yield produce asset bubbles?
   - Inadequate and inattentive regulators the primary cause
   - Price stability and financial stability can co-exist
   - No home-grown crises in Australia, Canada and several other countries who were targeting inflation

Misdirected Criticism (cont’d)

2) Monetary policy was more effective during the crisis than critics suggest
   - Outcome without extraordinary monetary policy easing would have been much worse
   - Central banks forced to fight the crisis alone
   - Severe headwinds from domestic and external sources
   - Structural weaknesses, fiscal tightening, trade wars …
   - Conversion to more Keynesian solutions came too late

Two Questionable Suggestions for Improvement

- A number of well-known academics and policymakers have recommended:
  - (1) Raising the inflation target from 2 to 3 or 4 per cent
  - (2) Giving more explicit recognition to financial stability
- Three reasons given for raising the target inflation rate:
  - (1) Fewer encounters with the Lower-Effective-Bound
  - (2) More room for manoeuvre for monetary policy
  - (3) Minimizing the search for yield

Two Questionable Suggestions (cont'd)

- Six reasons why this would not be a good idea:
  - (1) Sacrificing the benefits of greater price stability
  - (2) Commitment to more effective financial regulation
  - (3) FX channel still effective at the Effective-Lower-Bound
  - (4) Evidence that unconventional monetary policy works
  - (5) Fiscal policy is a potentially helpful partner
  - (6) Negative interest rates in a cashless economy
- Might actually be a case for <u>lowering</u> the inflation target

Two Questionable Suggestions (cont’d)

- Second questionable suggestion involves giving monetary policy increased responsibility for financial stability
- Why conflating price and financial stability would be a mistake:
  - (1) Monetary policy leaning unhelpful and likely harmful
  - (2) Targeted macro-prudential measures are better
- Cautionary experience of countries such as Sweden
- Strict and separate assignment of policy tools much better

Three More Promising Ideas for Improving the IT Framework

1. Price-Level Targeting (PLT):
   - Corrects past mistakes
   - Provides benefits of history dependence
   - Strengthens self-stabilizing properties of agent's expectations

- Two potential problems:
  - (1) Communication and commitment challenges
  - (2) Limited real world experience with PLT (Sweden)

Three More Promising Ideas (cont’d)

But,

- Communication and commitment challenges likely exaggerated
- Promising results from DSGE model simulations
- Positive experimental research with students at McGill U.
- Inflation over-shooting as a helpful feature of PLT
- Suspicions Canada has been covertly Price-Level Targeting
- Interest rate smoothing is a form of history dependence

Three More Promising Ideas (cont'd)

2. Targeting the level of Nominal GDP (NGDPT):
    - Focus on the level of real output <u>and</u> stable prices
    - Consistent with the (implicit) dual mandate of most central banks
    - Overcome problem associated with supply shocks

- Two potential problems:
  - (1) Revisions and lags in the release of GDP numbers
  - (2) Inherent difficulty estimating potential output
- But authorities are already using a variant of NGDPT

Three More Promising Ideas (cont'd)

3. Blended Solutions:
   - Use traditional IT in normal times
   - Rely on PLT or NGDPT in exceptional situations
   - Make what was implicit, explicit, and announce a two-part framework
   - Alternatively, consider "average inflation targeting"
   - Average 2 per cent inflation over 3-5 years vs. past 12 months

Where Does This Leave Us?

- Canada has been looking for possible improvements to its IT framework since 1991
- Part of BoC's regular IT renewal process
- Six renewals since 1991, typically on a five year cycle
- First five renewals focused mainly on:

  (1) Cost-benefit of a lower target (true price stability?)

  (2) Cost-benefit of moving to Price-Level Targeting
- Promising results uncovered support for both proposals

Where Does This Leave Us? (cont’d)

- Latest IT renewal agreement between the BoC and the government was announced in October 2016
- Focused on the following three questions:

  (1) Should the inflation target be <u>raised</u>?

  (2) Should a new measure of core inflation be adopted?

  (3) Should financial stability concerns receive more recognition?

- [Question (2) largely a housekeeping matter]

Where Does This Leave Us? (cont’d)

- In the end, the BoC and the government decided to:
  - (1) Leave the target inflation rate at 2 per cent
  - (2) Feature three different measures of core inflation
  - (3) Leave financial stability arrangements unchanged
- However, the BoC indicated somewhat less enthusiasm than earlier for “leaning”
- Monetary policy to be used for financial stability purposes only in very exceptional circumstances

Where Does This Leave Us? (cont'd)

Bottom-line:

- Threshold for any substantive changes to the existing monetary policy framework of the Norges Bank is very high
- "If it ain't broke don't fix it"
- IMF has recommended some "tweaks" that the BoC might consider to its framework:

    (1) Publishing a conditional interest rate path

    (2) Publishing Monetary Policy Committee minutes

    (3) Making some changes to the MPC's governance

Where Does This Leave Us? (cont’d)

- But most of the IMF’s recommendations are already embedded in the Norges Bank’s policy framework
  - It is regarded as the “best of breed” by the IMF
  - A model for others to follow

- <u>Nevertheless,</u> I would suggest that Norway give serious consideration to (1) the merits of Price-Level Targeting, and (2) separating the financial stability and monetary policy functions more explicitly (i.e. abandon “leaning”)