Inflation targeting as a monetary policy framework

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Outline

- What is a framework, and what can it do?
- The Nigerian context and the CBN’s current framework.
- Key features of inflation targeting.
- Costs and benefits of adoption.
- The naira in an inflation targeting framework.

A ‘monetary policy framework’

- A set of macroeconomic objectives for monetary policy, including but not necessarily limited to price stability.
- A set of instruments the central bank uses to achieve these objectives. (Exchange rate policy included.)
- A procedure for guiding the choice of instruments as functions of observable variables and expert judgments, often involving intermediate targets.
- A strategy for communicating central bank choices to the public.

What monetary policy can do

- Influence the *ex ante* long-run means of real variables contingent on the long-run growth path. **NO.**
- Influence the *ex ante* volatilities of real variables contingent on the long-run growth path, at all horizons. **YES.**
- Influence the *ex ante* mean of inflation at all horizons. **YES.**
- Influence the *ex ante* volatility of inflation at all horizons. **YES.**
- Influence the long-run growth path. **YES, probably, through the influence of these things on fiscal behavior, financial development, and the investment environment including capital flows.**

The Nigerian context

CPI measure	Component		Weight (%)
Head-line	*Farm produce*		**59**
	Core (b)	*Energy*	**7**
		Core (a)	**34**

Source: CBN

Share of imports in GDP = about 40%.

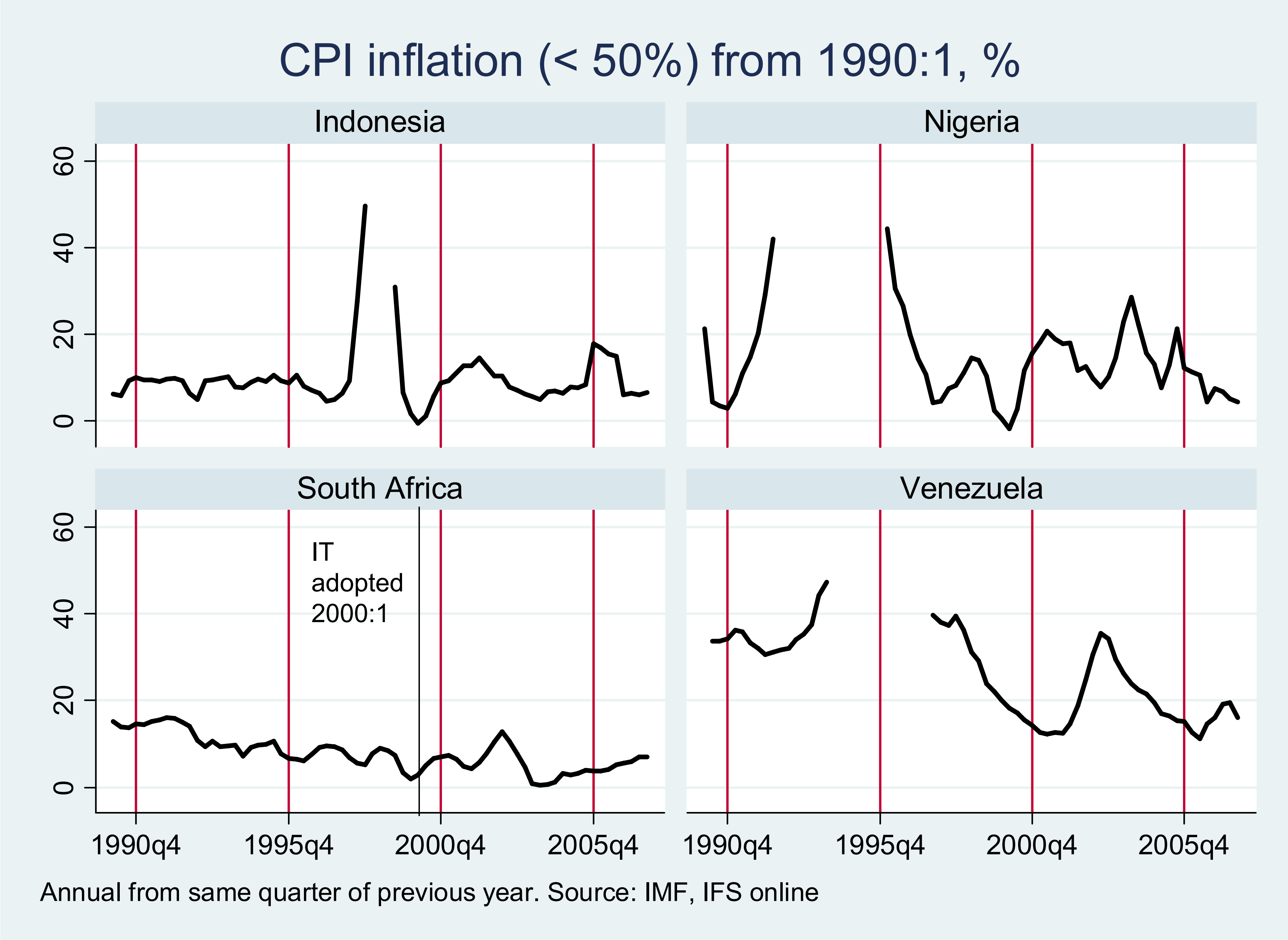
- Monetary policy cannot tie down in the LR: Real price of food or fuel, Real wage (public or private), Real exchange rate, Real interest rate on bank loans or government debt.
- Historically (1970-late 1990s): accommodation of fiscal deficits (fiscal dominance) and wage-push pressures (political dominance). Lack of a coherent framework; instability.

IMF conditionality as a framework

- Objectives (70s, 80s): viable BOP at predetermined E.
  - other objectives – e.g., keeping output near potential – suppressed, except for price stability which is a key input to the main objective.
- Intermediate targets: a floor on NIR.
- Instruments: various, but must satisfy an NDA ceiling.
- **FINANCIAL PROGRAMMING DOES ‘TARGET’ INFLATION**:
  - nominal anchor is the rate of crawl of E (e.g., zero).
  - an NDA ceiling limits fiscal authorities to monetary finance consistent with the NIR floor and the inflation-consistent demand for money.
- Error-correction implied by conditionality.
- Communication/transparency/accountability to public weak.

The CBN’s current framework

- Reserve money program = Financial programming with a flexible E.
- Objective: low & stable inflation … plus?
- Intermediate target: broad money growth.
- Instruments: Reserve money target and a zero limit on net financing of government.
- ‘Targeting’ inflation:
  - Inflation projection embodied in nominal GDP growth projection.
  - Monetary aggregate is nominal anchor, but not a pure float.
  - Fiscal discipline has executive and parliamentary buy-in, but not yet at the state level.
- Growing *de facto* and *de jure* independence for CBN.
- Error-correction ongoing. IMF is monitoring but not lending.
- Communication/transparency/accountability all improving.


CPI inflation (< 50%) from 1990:1, %
Indonesia
Nigeria
South Africa
Venezuela
IT
adopted
2000:1
0
20
40
60
1990q4
1995q4
2000q4
2005q4
Annual from same quarter of previous year. Source: IMF, IFS online

IT as ‘constrained discretion’

- Public commitment to get inflation into a very narrow numerical range (usually +/- 1) and keep it there.
  - Usually decided jointly by central bank and government.
  - Usually headline but sometimes excluding volatile components (food, energy): Korea, Thailand, Norway, South Africa (CPIX).
- Discretion in how to achieve the target.
  - Intermediate target is an inflation forecast.
  - Scope for discretion affected by program parameters: size of target range, horizon for achieving the target, escape clauses on when you’re allowed to miss, exclusion of volatile components.
- Transparency and accountability built in.
- Instrument usually *i* but could be base money (e.g., Mexico).
- E arrangements vary but clarity *ex ante* about priority is important.

Flexible IT as a policy rule

- The 'Taylor rule'

$$i(t) = r + \pi(t) + 0.5 \cdot [\pi(t) - \pi^{*}] + 0.5 \cdot [y(t) - \bar{y}(t)],$$

where *r* = equilibrium real interest rate, ybar = potential GDP

- Positive coefficient on actual or forecasted inflation requires central bank to increase the real short-term interest rate increases when inflation rises.
- Inflation determined by Phillips curve. Transmission from short to long-term interest rates to aggregate demand (y) and inflation.
- The CBN's framework may usefully be thought of in terms of an underlying policy rule. Instrument is reserve money; intermediate target broad money growth or maybe nominal GDP growth.

Benefits and costs of adopting IT

- In general IT has been very successful. Among emerging-market targeters and adopters, a lower mean and volatility of inflation and ‘as good or better’ real outcomes. None of (at least) 13 since 1997 have abandoned it.
- The CBN’s current framework ‘targets’ inflation. IT would target it more transparently and narrowly. Is IT a better framework?
  - Better institutionally? (will challenge CBN and Statistics Office capabilities; will transfer monitoring from IMF to Nigerian public).
  - Better at reducing costs associated with fiscal indiscipline?
  - Better at managing other shocks to the economy?

Lingering worries on fiscal discipline

- IT may enhance CBN's de facto independence, which is likely to come under pressure if states manage to get/spend oil allocations and then oil prices fall.
  - This reality will tend to enhance fiscal discipline *ex ante.* A timetable for IT might (?) even force the pace of a political settlement about managing oil revenues.
- But if such an agreement is not made, and management is weak at federal or especially state level, then being completely non-accommodative may be a dangerous game.
  - 'Unpleasant fiscal arithmetic': maybe allowing more flexibility on inflation is better.
  - Lack of fiscal discipline is a precondition for most analysts, but this is imprecise.

Better at managing other shocks?

- If inflation is a central objective, then making an inflation forecast the intermediate target makes sense.
- IT better on velocity/portfolio shocks – fewer shocks, and with interest rate instrument, automatic accommodation. When base money is instrument, can use exchange rate.
- Stabilizing expected inflation will reduce the pass-through of exchange rate, food prices, and fuel prices into other prices. This may in turn reduce the cost of achieving any given inflation objective.
- Possible endogenous reduction in liability dollarization.
- Not clear at all that IT is better at handling supply shocks, e.g., droughts. A reason to exclude food prices? Definitely don't exclude energy prices.
- If 'unpleasant arithmetic' is important because of lack of fiscal flexibility, then having liquidity conditions respond very sharply to inflation may be destabilizing.

What about the naira?

- Under a pure float, a Taylor rule automatically responds indirectly to the exchange rate due to pass-through and the role of the real exchange rate in the monetary transmission mechanism.
- The real exchange rate is often in estimated reaction functions, with a depreciation producing higher interest rates.
- A wide variety of exchange rate arrangements have coexisted successfully with IT; key is that there are well-defined conflict situations and the inflation target should take precedence.

Conclusions

- Batini (2004) makes a ‘second-best’ case in favor of moving to IT, and on balance I agree.