REVIEW OF RELEVANT COUNTRY EXPERIENCES IN TRANSITIONING FROM MONETARY TO INFLATION TARGETING[1]

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I. INTRODUCTION

1. This note reviews the experiences of a diverse set of countries during their transition to inflation targeting.[2] The motivation is to take stock of the experiences of these countries in transitioning to inflation targeting (IT) type arrangements—including the economic and institutional settings prevailing at the time of transition—and review the challenges they faced, and the main features of IT frameworks they adopted, with a view to informing sub-Saharan African countries intending to adopt similar frameworks. In section II, the prevailing macro conditions at transitioning and motivation for the transition are briefly discussed, while section III discusses the key challenges and reforms implemented during the transition phase. Section IV describes some of the main common features of the adopted formal IT frameworks, and section V the main aspects of Fund program design for the countries which had a Fund-supported program in the sample. Section VI identifies some takeaways which could be relevant to the SSA countries during the transition to IT.

II. PREVAILING CONDITIONS AND MOTIVATIONS OF THE TRANSITION TO IT

2. **Although all countries transitioning to IT had problems with existing nominal anchors, most countries in the sample generally experienced in one way or another unstable macroeconomic environment**. Albania and Armenia were in some ways the exception (in the sample) as these two countries started the transition after having achieved some level of macroeconomic stabilization. For some of the countries with flexible exchange rates regimes, domestic and/or external imbalances led to rapidly depreciating exchange rates and mounting inflationary pressures, which triggered the transition. Some other countries suffered from large fiscal deficits and unsustainable balance of payments positions (Ghana and Turkey). Furthermore, structural shifts and/or exogenous factors/shocks, including—financial sector deepening, terms of trade shocks, and rapid shifts in capital flows—contributed to the search for an appropriate monetary policy framework which precipitated the move to IT in almost all countries. In cases where countries experienced external shocks,

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[2] This set includes Albania, Armenia, Brazil, Ghana, Moldova, South Africa, and Turkey. These countries have been chosen because a number of them had similar characteristics to those prevailing in SSA countries when they transitioned to IT. Others, like Brazil, were introduced as standard setters for these countries.

the nominal anchor in place was not able to guide adequately monetary policy. Table 1 summarizes these developments.

3. **The move to IT was considered by most countries as the only viable alternative to better anchor inflation expectations**. While a number of countries adopted an IT framework in the context of a disinflation strategy, some countries found in it the only alternative to stop an unraveling crisis. The central bank of Brazil, for example, adopted the IT framework to immediately contain large pass-through effects from the exchange rate devaluation to inflation. Turkey on the other hand abandoned its exchange rate peg to stop a further deepening of an external sector crisis (2001). Albania, Armenia, and Moldova, and South Africa in turn adopted the IT framework to better anchor inflation expectations in light of increasing difficulties in relying on monetary aggregates to guide the stance of monetary policy.[3] Furthermore, Albania and Turkey may have also adopted the IT framework to signal stronger commitment to macroeconomic stability, part of a strategy to boost their chances for integration with the rest of Europe.

4. **Prior to transiting to IT, two different monetary policy anchors were used by countries in the sample set**. A large number of countries used a monetary targeting framework (Albania, Armenia, Ghana, Moldova, and South Africa) and fewer others had an exchange rate peg: a crawling one (Turkey) and a target band (Brazil).

5. **All central banks in the sample relied on money market operations**. In particular most had in place basic indirect monetary policy instruments and properly functioning open market operations although money markets were at various stages of development. Domestic financial markets reforms were still under way and varied largely across the sample with Brazil and Turkey being at the upper end of the financial development spectrum and Moldova at the opposite end—still suffering from imperfectly operating money and foreign exchange markets. Furthermore, in all countries but Brazil, the capacities of the central banks for forecasting inflation and for understanding the monetary transmission mechanism—particularly the strength of the various transmission channels—were largely limited.

6. **The move to an IT framework was also viewed as a means to strengthen coordination between the central bank and the government**. The IT framework enhances the credibility of the central bank actions as it entails a joint commitment to macroeconomic stability by both the central bank and the government (laying down the foundations for reducing and ultimately eliminating fiscal dominance). At the same time, it helps establish a legal and institutional framework to enhance the transparency and accountability of monetary policy, thus better anchor inflation expectations.

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[3] On account of unstable money multiplier and money demand.

III. THE TRANSITION PHASE: CHALLENGES AND REFORMS

7. **All but one country gradually transitioned towards a full-fledged IT framework**. Brazil was the only country in this group that adopted the big-bang approach in moving to IT, thanks to its relatively strong implementation capacity (Table 2). The rest of the countries took advantage of a transition phase, which ranged from 2 to 5 years to gradually develop capacity. However, from the start, all countries announced an informal inflation target (a rate or a band) to reduce uncertainty and begin to influence expectations. They all also continued to monitor monetary aggregates, and in many cases maintained a money target as the formal nominal anchor. In addition, all countries started developing and monitoring a number of macroeconomic and financial indicators to guide the conduct of monetary policy, as a prelude to the development of their capacity to move to formal IT.

8. **Countries generally opted for gradual transition to reduce the risks that may arise from a weak policy environment before moving to a full-fledged IT**. In particular, many countries (Albania and Turkey) tried to address early on the risks from large fiscal deficits (problems of fiscal dominance), which severely undermine monetary policy because of the pressure this puts on the independence of the central bank. In the case of Turkey for example, the authorities took advantage of the transition to quickly entrench fiscal discipline and gradually reduce government debt.[4] The enhanced macroeconomic stability gradually led to the recovery of growth, further reducing the debt-to-GDP ratio.

9. **Similarly, some countries used the transition phase to strengthen the resilience of the domestic economy to external shocks—including in some cases by allowing the exchange rate to respond more freely to fundamentals**. A case in point is South Africa; to deal with substantial swings in the exchange rate, the central bank stopped all previous attempts to peg the exchange rate and left it to float freely in response to demand and supply shocks. At the same time, they adopted appropriate policies that strengthened macroeconomic stability in line with fundamentals. However, this could not be said of all countries that transitioned to IT. In fact, because of the high pass-though effects to inflation, the experience of other countries showed that some central banks, while focusing on inflation as a primary objective of monetary policy, they still have continued to care about the exchange rate and to manage it to some extent even after introducing IT (Armenia).[5] In situations where the exchange rate movements change the money demand conditions, the foreign exchange intervention to smooth out the associated exchange rate volatility tends to be supportive of the monetary policy objectives.

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[4] In the early transition phase, monetary policy remained constrained.

[5] Also, many other countries outside our sample—mainly central and eastern European economies—which retained some foreign exchange rate management policy even after moving to IT.

10. **Another concern addressed by countries during the transition was the weak state of health of their financial sectors**. A major concern of central banks when attempting to implement an IT framework is whether banks can safely respond to monetary policy signals. In particular, would banks be able to react to a tightening of the monetary stance—thus raise interest rates on their loans without endangering the financial system stability. In this context comes the important role of banking system supervision. Against this backdrop, many countries took advantage of the transition phase to reform their banking system (Ghana and Turkey). In particular, banks were asked to clean their balance sheets, including by ensuring proper provisioning of bad loans; securitizing government debt and restructuring (weak) state owned commercial banks; and/or the recapitalization of non-solvent private commercial banks.

11. **The transition phase was also utilized by central banks to strengthen their independence and more generally monetary policy implementation capacity**.

(i) ***Most countries put in place the required legislation to strengthen central bank independence***. Prior or early on in the transition, this was made clear in most central bank acts which indicated either explicitly or implicitly that the primary objective of monetary policy is primarily to achieve price stability (Brazil, Turkey, and South Africa). Ghana was the only country in the group where a new central bank act was introduced at the start of its transition to inflation targeting to give the needed legal backing for an independent conduct of monetary policy.[6] In nearly all countries in the sample, direct central bank lending to their governments was prohibited by the law, and in many countries, the law also provided for the financial autonomy of the central bank, including the clear right of the central bank to recapitalization (Armenia and Moldova).

(ii) ***They also added provisions to enhance policy coordination between the fiscal and monetary authorities, strengthening the credibility of central banks actions***. In this regard, many countries established a mechanism by which the inflation target is set jointly by the government (through the ministry of finance) and the central bank.[7] While in some countries the target could be announced by the government, the central banks of all countries have generally been granted full instrument independence to achieve the pre-set target. Furthermore, and to enhance credibility, additional reforms were introduced to improve transparency and strengthen the accountability of central banks, including in particular, requiring central banks to provide explanations when inflation targets are missed by a significant margin (below).

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[6] The act also addressed the issue of fiscal dominance by placing an explicit limit on government borrowing from the central bank.

[7] In Turkey, this process was further strengthened by the (official) recognition by the government of the role of fiscal discipline in managing expectations.

(iii) ***Most central banks, however, lacked the main analytical infrastructure for a forward looking approach to monetary policy, a basic requirement for full inflation targeting***. This was critical, as one of the basic features of the IT framework is to make public—through regular reporting—the central bank inflation forecast. Cognizant of the gap, most central banks started early on in the transition to develop their modeling and inflation forecasting capacities. In addition, most central banks developed multiple indicators to better understand the working of the economy and in deciding the direction of monetary policy. Some of the new indicators were based on surveys that measured businesses' and consumers' confidence (Ghana and Turkey) and a composite index of economic activity (Ghana).

(iv) ***Some countries had to strengthen their data collection and analytical capacity***. Data was particularly weak in developing countries at the time they were moving to IT. In particular, countries lacked high frequency indicators of economic activity and real sector data in general (Ghana). In this regard, countries immediately began develop their data collection infrastructure both at the central bank and statistical offices to collect reasonably high quality data on a high frequency and timely basis (Ghana and Albania). These data sets help the countries' authorities' better gauge economic activity and evaluate the adequacy of the monetary stance besides being an input into the monetary policy making process. It also enabled their central banks improve their communication to the public, as they are became equipped to explain actual deviations of inflation from forecast when they occur.

(v) ***Central banks worked to improve further their monetary policy signals—thereby enhancing the effectiveness of monetary policy***. Such reforms were aimed in particular at enhancing the transparency of central bank decisions and the signaling of the direction of the monetary stance. In this vein, the Reserve Bank of South Africa introduced a new repurchase system to remove ambiguity caused by repo operations regarding the direction of the monetary policy stance and fixed the repurchase rate, making it effectively its policy rate. To enhance the transparency and the competitiveness of the interbank market, the central bank of Ghana introduced a new interest rate corridor to guide the money market and encourage commercial banks to trade among themselves, using the central bank only as a last resort. Further, the central bank introduced overnight repo operations to provide the central bank presence in the market to influence/guide short term interest rates.

IV. FULL INFLATION TARGETING—KEY FEATURES

12. Although inflation declined significantly and central credibility improved during the transition (informal IT or IT lite), countries still faced challenges because of persistent uncertainty and lack of clarity on central bank decisions in relation to inflation developments. Under informal inflation targeting, it was not possible to fully elicit the same commitment to

policy coordination—with regards in particular to price stability—a less favorable outcome when compared to a fully fledged inflation targeting regime.[8]

13. Thus, ***the move to formal IT would help establish a structured decision process, providing a stronger push for coordination of policies, particularly between the central bank and the ministry of finance, thereby establishing central bank credibility***.

- ***Decision and announcement of target***. *Reforms on this front aimed at displaying a broad commitment to macroeconomic stability*. The decision of the inflation target was generally made jointly by the government and the central bank (except in Albania and Brazil where the decisions are made by the Supervisory Council (BoA) and the National Monetary Council (NMC) respectively—bodies independent of the central bank. However, many countries left the announcement of the target to the government—as they did previously under monetary targeting—while the central bank enshrined in the law its full instrument independence (and most notably under the full IT framework, the decision on the changes to the interest rates and the direction of the monetary stance).

- ***Dimensions of the inflation target***: *The objective was to have a simple, transparent, and acceptable target by the public.* Most countries consciously chose a wide ranging inflation measure, generally the headline CPI (despite the fact that it is the most vulnerable to exogenous shocks), because it is deemed to be the most understandable and most accepted measure (of cost of living) by the public. Some countries chose to set a target rate with a tolerance band (called uncertainty in Turkey) around it, while others opted for simply a target band (South Africa). All countries, on the other hand, set inflation targets extending over a long time horizon, generally three years (the shortest was set at 24 months in Brazil and Moldova). The announced inflation path displayed a gradual reduction in inflation—not too costly in terms of impact on growth and reflecting a desire to allow for a reasonable measure of latitude to the central bank. Table 3 summarizes selected features of the full-fledged IT frameworks.

- ***Transparency and accountability***. To better anchor expectations, central banks took a number of concrete steps to improve communication with the public and reduce uncertainty with regards to the direction of monetary policy. These focused particularly on:

    - Ensuring regularity and predictability of timing of information. The schedules of meetings of the monetary policy committees (MPC) were made public and usually announced for at least a full year in advance. Some central banks, however, made provisions for the possibility of ad-hoc meetings (on exceptional basis) should sudden macroeconomic changes require central bank action.

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[8] This is particularly true during periods of shocks when the price stability objective is not fully in line with the growth objective (e.g. supply side type of shock).

- Minutes of MPC meetings including summaries of inflation forecasts and summary evaluations of the MPC and positions with respect to inflation were published shortly after the MPC meetings (in line with a pre-announced schedule).

- Central banks also took steps to publish monthly/quarterly reports on inflation (so called "Inflation Reports", which would give inflation forecast for a given horizon, typically about 6 quarters), and other macroeconomic developments; such reports covered the external sector, the fiscal sector, monetary and the financial sector, and the real sector.

- To enhance accountability, clear processes were put in place by most central banks to inform the public about the direction of monetary policy. In particular, formal mechanisms were established to require central banks to provide explanations when inflation developments deviate from forecasts. Such explanation are usually addressed in the form of an open letter from the central bank Governor to the government (generally represented by the Ministry of Finance), which also includes the measures to be taken to reverse back the inflation to trend.

- At the same time, the new IT framework allowed for some flexibility to tolerate short term temporary shocks to inflation. In this regard, the central banks are required to react (to deviations of inflations from forecast) only if the medium term inflation target is in jeopardy; temporary shocks could change inflation forecasts rather than inflation targets.

V. IT and Fund Program Design

14. Fund-supported programs aimed at restoring external and internal balances which in and of themselves lead to strengthening macroeconomic stability, including reducing inflation. However, Fund assessment criteria applied under the orthodox monetary targeting framework do not explicitly target an inflation level and have as a primary focus to ensure that the Fund-supported programs lead to external viability (Box 1). In this regard, the assessment criteria are designed to set off signals to tighten the monetary stance if the targeted external (gross reserve) objective is being threatened (because of low NIR or excessive increase in NDA). However, they do not prevent a buildup in the gross reserve position in excess of target (excessive increase in NIR) from fueling monetary expansion, although this may be potentially inflationary.[9]

15. With the adoption of IT frameworks, the assessment criteria would include achieving the inflation target as one of the program objectives. This has been done while preserving the

[9] Where external shocks do not increase money demand, this is inflationary.

initial primary focus of the assessment criteria, that is external viability. However, the inclusion is not common to all countries. (Table 4):

- In our sample, three out of the six program countries that adopted the IT framework while under an IMF-supported program had their assessment criteria revised to reflect the change in of the nominal anchor in their framework (Brazil, Ghana, and Turkey).[10] The countries also added a consultation clause in relation to their inflation objective (inflation target)—the new innovation in Fund programs for the "IT targeters" compared with monetary targeting countries. The consultation clause is set on a target inflation rate with two consultation bands: the informal consultation (with staff) is triggered every time actual inflation is outside the narrow inflation band. However, formal consultation, requiring Executive Board approval of a revised program including an updated inflation path will be triggered if actual inflation falls outside the wider band.

- The remaining three countries (Albania, Armenia, and Moldova) kept the traditional monetary targets, although they transited to an IT framework. Interestingly, the inflation target, while (may be) stated in the Fund documents, has not been included as part of the program assessment criteria. The continued implementation of traditional assessment criteria in this context appears to be motivated by either/or the extent and the level of credibility of the commitment of the authorities to the inflation target, and implementation capacity issues—including capacity to forecast inflation and understand the transmission mechanism and properly assess the stance of monetary policy, as well as assess the quality of data.

VI. KEY TAKEAWAYS

16. The following are takeaways inferred from the above countries' experiences and other empirical evidence in the literature could be useful to Sub-Saharan African countries intending to move to IT type of framework:

(i) ***IT could be adopted by a wide range of countries including well prepared low income countries***. Countries do not have to wait until a given set of conditions are met; they could start the transition to IT as soon as a clear commitment to move in that direction is secured from both the central bank and the government. In fact, there are indications that the political decision to adopt IT and start moving in that direction helps reinforce the process for development of the conditions that make for its successful implementation. Further, establishing some of the conditions in the context of some transitional arrangement (IT Lite) could promote the process for establishing the foundations of a successful implementation of full- fledged IT.

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[10] In addition, these countries kept the usual quantitative assessment criteria (QAC) on gross reserves (or NIR or NFA). However, only Brazil maintained a QAC on NDA.

(ii) ***During the transition phase, no unique anchor is observed by countries in the sample***. Countries used a mixture of indicators including monetary targets and macroeconomic and financial indicators to assess the monetary stance and guide the conduct of monetary policy.

(iii) ***Having in place certain conditions or building blocks, however, could make the transition to IT easier and less challenging***. These include in particular: (i) commitment to price stability as the overriding objective of monetary policy; (ii) absence of (or commitment to eliminate) fiscal dominance; (iii) some basic understanding of the transmission mechanism (iv) central bank instrument independence; and (v) a reasonably well functioning financial markets.

(iv) ***Thus, coordination between fiscal and monetary policy is crucial for a successful move to an IT type framework***. This does by no means imply the need to achieve fiscal consolidation prior to moving to IT. It is rather securing (eliciting) the political commitment at the highest level to fiscal discipline, which is necessary to signal markets and the general public that the central bank has the full backing of the government, thus truly able ("credibility of ability") to pursue its mandated primary objective of price stability. In practice, this entails explicit recognition by the government of the role of fiscal discipline, and a steadfast implementation of sound macroeconomic and structural reform policies—establishing the underlying conditions for a stable macroeconomic environment and a flexible exchange rate regime.

(v) ***The development of technical capacity including to forecast inflation and to understand the transmission channels is crucial in this regard***. The monetary authorities need to be able to anticipate inflation pressures and to distinguish to the extent possible between transient and permanent shocks to (i) properly decide on the direction of monetary policy, and (ii) explain clearly to the public sources of deviation from target when they occur (as well as the corrective actions if needed).

(vi) ***This will also require the development of high quality high frequency indicators of economic activity***. These are crucial to inform the analysis and the decision process. Such data should cover a broad spectrum of domestic and external sectors (including financial indicators). It should be further enhanced by forward looking surveys that measure business and consumer confidence—critical to enhancing the understanding and the assessment by the central bank of prevailing economic conditions and drivers of (actual versus anticipated) inflation.

(vii) ***Technical capacity alone is, however, not sufficient as there needs to be an elaborate process for the development of a very professional judgment***. To reach and successfully implement full-IT, there is need to build credibility and thus reduce room for making mistakes. To this end, there is need to develop an elaborate machine and adequate support structures that would not only deepen the analytical process but also put in place checks and controls to reduce to a minimum the risks of mistakes. Such machine will also serve to help develop the professional judgment that will strike the careful balance between setting ambitious disinflation objectives—as a sign of commitment to establishing a stable macroeconomic environment—and the risks of not achieving them.

(viii) ***Reasonably well functioning money and foreign exchange markets***. For the purpose of monetary policy in general, reasonably functioning markets enable an adequate and effective conduct of monetary policy by the central bank. For an IT framework, it is even more important as the central bank will need to master the transmission channels, crucial for developing and maintaining *credibility*—in terms of actions and for accountability purposes (explaining its actions or non action and deviations when they occur).

(ix) ***Establishing policy credibility during the transition helps reduce the cost of shocks***. When expectations are well anchored supply shocks have relatively little effects on inflation expectations, and thus require lesser *actions* from central banks. By opposition, lack of credibility requires stronger policy actions in times of shocks; the central bank would need to raise interest rates more forcefully to convince markets and bring about a more visible reduction in inflation.

(x) ***Additional efforts to provide TA to member countries in a wide range of issues are needed to facilitate a smooth and successful move to IT in SSA countries***. The IMF Research Department could assist in constructing and applying small structural models for inflation forecasting, starting with a few pilot countries in the region. TA could also be provided by the Statistics Department (STA) to help improve the quality and timeliness of high frequency of macroeconomic statistics, including those for monetary policy formulation by central banks in SSA countries. And, last but not least, MCM will continue to provide technical assistance in the area of monetary operations and financial sector reforms in line with the temple of advice presented in the seminar.

Box 1. IMF Program Design Under Monetary and Inflation Targeting[11]

Monetary Targeting framework

- Rooted in the assumption that demand for base money is stable and predictable.
- The primary focus of monetary assessment criteria in IMF programs is to ensure that a program achieves external viability rather than impose a tight control over inflation.
- The NIR target is set in such way to ensure that the program is designed to achieve its external objective.
- The ceiling on the NDA could be seen as it seeks to ensure that the NIR target is not jeopardized by excessive lending or by sterilized intervention (that is by compensating unprogrammed NIR losses through additional credit creation).

In practice

- NIR target is usually set at or somewhat below baseline and the NDA ceiling at a level consistent with the NIR baseline.
- The NIR/NDA targets are designed to set off warning signals to tighten the monetary stance, if NIR is too low or over-sterilization of unprogrammed sales of NIR.
- However, it does not prevent larger than programmed NIR from fueling monetary expansion (potentially inflationary).

Inflation Targeting: Arguments for NIR/NDA framework.

- Not needed anymore (flexible exchange rate regime); but tradeoffs between domestic objectives (inflation) and external objectives (external viability) may be unavoidable.
- Thus, retaining NIR target safeguards external viability. While NDA target could prevent large departure from inflation objective (it could limit base money expansion/sterilized intervention) strengthening the credibility of the inflation target.
- However, risk of conflicting signals (disconnect between inflation and NDA)

IT - Inflation consultation clause

- Annual central inflation target + a quarterly path with two tier consultation band around central target
- Outer band: +/- X percent around central target
- Inner band: +/- Y percent around central target; (Y<X)
- Informal consultation with IMF staff if actual 12-month CPI falls outside inner band
- Formal consultation with the IMF Executive Board if 12-month CPI falls outside outer band.

[11] See Mario I. Blejer et al (2002) for more detailed discussion of IMF conditionality and IT.

Table 1. Conditions before, and Motivations of, the Transition to IT

Country	Initial macroeconomic conditions	Nominal anchor in place	External factors/shocks	Other prevailing conditions	Observations
Albania	Successful completion of market reforms, trade liberalization; macroeconomic stability was broadly maintained.	Monetary aggregates	Yes, supply shocks and terms of trade shocks (Albania is a net oil importer).	Unstable money demand; Dollarization; Small credit channel Monopolistic banking structure;	Phase out gradually beginning in 2005 Treasury overdraft facility with BOA
Armenia	In general low inflationary environment, albeit highly dollarized, money demand was unstable	Monetary aggregates	External shocks/High level of remittances	"Price stability" objective for central bank	Central bank credibility had been undermined due to frequent changes in monetary program
Brazil	High external imbalance and high inflation	Exchange rate peg	High risks of capital outflow; unable to defend peg		Relatively short transition period to IT due to pre-existing high capacity before transition to IT
Ghana	Fiscal dominance and high inflation	Monetary aggregates	High external debt and terms of trade shocks	Shallow financial system.	Move to IT needed to establish credibility
Moldova	Large credit expansion and high inflation	Monetary aggregates	Large remittances and private capital inflows		
South Africa	Unstable exchange rate and inflation	Monetary aggregates		Short term interest rates as main policy instrument	Enhance transparency, discipline and central bank accountability
Turkey	Large government debt; rapid depreciation of exchange rate	Crawling peg	High risks of capital outflows	Weak banking system	Economy in crisis; moving to IT was the only credible alternative

Table 2. The Transition Phase—Key Features of the Monetary Policy Frameworks

Country	IT lite	Full-Fledged IT	Transition phase	Anchor during transition	Signaling instrument
Albania	2004	2008	4 years	Inflation target (range) + Monetary aggregates	Repo rate
Armenia	…	…	Improvement in monetary and fiscal coordination	Forecasted inflation	Short-term interest rate
Brazil	No (Big-bang approach)	July 1999	Less than 6 months	N.A.	Selic rate (Interest rate for overnight interbank loans; collateral: government bonds)
Ghana	2002	May 2007	5 years	Inflation + [Multiple set of indicators]	Interest rate corridor
Moldova	2010	…	> 1 year	Monetary aggregates	Base rate (policy rate)
South Africa	March 1998	February 2000	2 years	Inflation band + Growth in M3	Repo rate
Turkey	2002	January 2007	5 years	Inflation + Monetary aggregates (complementary anchor)	Market (Repo) rate

Table 3. Full-fledged Inflation (FFI) Targeting—Selected features

Country	Decision	Target Rate / Band	Horizon	Price Index	Others
Albania	Supervisory council of BoA	3 % (+/- 1 %)	3 years (2012, 2013, and 2014)	CPI index	Core inflation + other Macro indicators
Armenia	CBA board monthly decisions on policy rate, monetary programs and reports are published on quarterly basis	4.0 percent ± 1.5p.p.	Three year (one year in practice)	Headline CPI	
Brazil	Decided by national monetary council (NMC), independent of CBB	Target rate (Tolerance band +/ - 2 %)	24 months	CPI index	Target could be adjusted on basis of supply shocks
Ghana	Joint committee MOF and BoG	6—9 percent; midpoint used for program with IMF. (Tolerance band +/ - 2 %)	24 months horizon (even though in recent MPC statements, the Bank of Ghana has been quite on this horizon.	CPI index	BoG monitors core to inform decision
Moldova	The central bank	Target rate 5 percent , +/- 1.5 %	18 - 24 months	Headline CPI index	
South Africa	Government in consultation with Reserve Bank	Annual average 3 < band < 6%, reduced < 5% Replaced later by .e.o.p. target	3 years (2003, 2004, and 2005)	CPIX index (CPI excluding cost of repurchase rate)	Escape clause: influence of external shocks (later replaced by explanation clause)

Turkey	Decided jointly by MOF and Reserve Bank	Target rate: (5 %, 4 %, 4 %) (Uncertainty band: +, - 2 %)	3 years (2006, 2007, and 2008)	New headline CPI index	New program with Fund + Accession to Euro

Table 4. Monetary Assessment Criteria Under Fund-Supported Programs [1/]

Country	Program type /period	NDA ceiling/fiscal financing	NFA/NIR floor	Inflation criterion
Albania	PRGF (2002-09)	NDA	NFA	No inflation target
Armenia	ECF/EFF (2010 - 2013)	NDA and overall fiscal balance	NIR	No inflation target
Brazil	SBA (1999)	NDA	Implicit NIR floor: maximum monthly intervention limits on sale of international reserves.	Consultation mechanism: • Quarterly inflation path • Inner consultation band (target rate +/ - 1 %) (informal with Staff) • Outer consultation band (target +/- 2 %) (formal, requiring approval of Executive Board)
Ghana	ECF (2009-2012)	Not on NDA Indicative target on NCG	NIR (preserve program external objectives)	Consultation mechanism [2/]
Moldova	...	NDA	NIR	No inflation target
Turkey	SBA	Not on NDA QAC on Primary balance of consolidated government and primary spending of central government	NIR (of central bank and Treasury)	Consultation mechanism [2/]

1/ Excludes South Africa, which had no Fund-supported program.
2/ The same design as Brazil.

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ANNEX I - COUNTRY CASES

Inflation Targeting in Albania

1. **Albania adopted IT after successful stabilization anchored by the previous monetary targeting regime**. The authorities expected that the IT framework will provide a better framework for integrating the increased information relevant for monetary policy decision-making and will offer a better communication tool for monetary policy. Specifically, they expected the framework to help better anchor inflation expectations and accommodate country-specific shocks. Perhaps, another factor was the authorities' desire to integrate the country with the rest of Europe in the longer term, including through adopting Maastricht criteria (even though Albania is not part of the euro zone).

2. **The authorities adopted a full-fledged IT framework gradually.** The formal IT framework was adopted in 2009 after preparing for the adoption in 2004-08. But this was preceded by the BOA making public at the end of each year the level of inflation aimed, starting in 1999, which led Stone (2003) to classify Albania as an *inflation targeting lite* country.

3. **Albania adopted formally an IT framework when inflation was low and stable (broadly within its target of 2-4 percent in 2000-07), inflation expectations were well anchored, and the public** acknowledged **IT as the monetary policy regime.** The prudent fiscal policy pursued in this period has had a significant positive contribution in controlling inflationary pressures as the budget deficit and public debt were gradually reduced, thereby avoiding the risk of fiscal dominance. In particular, the overall budget deficit (including grants) was reduced from more than 10 percent of GDP before 1999 to 3.7 percent in 2010-11. These efforts had reduced debt-to-GDP ratios under 60 percent of GDP, and the authorities are planning to lower further over the medium term. Large-scale emigration has eased unemployment and social tensions in the country while yielding substantial remittances. These remittances have sustained the Lek exchange rate reducing external inflationary pressures. Real GDP growth averaged around 6 percent during the preparation period.

4. **At the time of preparation and adoption, the authorities faced challenges related to the quality and availability of necessary data, modeling and forecasting techniques, underdeveloped financial markets, and fiscal dominance**. They took measures to address these issues, including through building the BOA'a analytical capacity, improving data quality and coverage, gradually eliminating direct credit to the government, increasing the BOA's independence, and establishing a mechanism to ensure monetary and fiscal policy coordination.

- During the transitional period, the Treasury's overdraft facility with BOA was being eliminated gradually, as alternative commercial and market-based options developed and the Treasury's liquidity management capacity improved. Specifically, the authorities started reducing the statutory limit for the overdraft facility from the 5 percent of budget revenues in 2004 by a 0.5 percent each year.
- Significant progress was made in the area of central bank independence, including through strengthening the BOA's governance structure, control over its budget and its authority to decide on compensation level. Moreover, the MOF started compensating the BOA for unrealized valuation losses related to the appreciation of Albania's currency.
- The authorities expanded their information sets.
- The BOM improved its inflation forecasting methodologies.
- To enhance its IT framework, the BoA took several steps to making its communication policy more effective,

5. **During the "transitional period," the exchange rate provided some buffer to shocks and the authorities did not aim a particular exchange rate.** Reserve money programming was also continued, and the country had several IMF supported programs implemented during this period, with targets (among others) on the central bank balance sheet (NIR floor and NDA ceiling) and net domestic credit to the government (from all domestic sources).

6. Key ***features*** of **Albania's** ***full inflation targeting framework***

- The inflation target is set at 3.0 percent, with a symmetrical tolerance band of +/- 1 percentage points (2-4 percent during the preparation period). The inflation target is measured by the annual rate of change in the CPI.
- Deviations from the target, according to the BOA, is acceptable, given that the economy is hit by external shocks or unforeseen circumstances beyond the control of the central bank, which are explained by the bank in its inflation reports and through other communication tools.
- From the beginning, the monetary policy framework was supplemented by a floating exchange rate, although the authorities acted as market makers in seasonal periods of large inflows.

Inflation Targeting in Armenia

1. **The Armenian authorities adopted their IT-lite framework to better anchor inflation expectations.** The previous regime of targeting monetary aggregates (in combination with prudent fiscal policy and structural reforms) was effective in reducing and stabilizing inflation: in 1998-2005, average inflation was about 2½ percent, and volatility of inflation declined. However, as inflation stabilized at low levels, the relationship between money base and monetary aggregates, on the one hand, and the relationship between inflation and monetary aggregates, on the other hand, became weaker mainly due to strong remittances and unstable money demand. The Armenian sources claim that the CBA's credibility was undermined by frequent revision of the monetary program.

2. **The transition to the IT *lite* framework was facilitated by better coordination between the monetary and fiscal authorities.** In fact, the country had an implicit inflation targeting: the law set price stability as the main goal of the CBA, while the budget law set inflation at 3 percent. The central bank was operationally independent and fiscal dominance was not a pressing issue.

3. **Under the IT framework, the CBA independence was considerably strengthened**. The law clearly stipulates its independence; the right to recapitalization; protection from external pressure; term of office exceeds election cycle; conflict of interest prohibition; fit and proper practice; and disclosure requirements. Most importantly, fiscal dominance was not a pressing issue, and direct financing of government was prohibited.

4. **Armenia provides an example where the country has officially declared itself to be an inflation targeter but has retained a policy role for the exchange rate**. Also the country has had targets on the central bank balance sheet (NIR and NDA; previously also net credit to the government) under the IMF-supported programs. The NIR target plays an important role, given vulnerabilities and the need for a buffer.

5. **Inflation has been more volatile after the adoption of the IT *lite* framework,** but this was mainly related to the impact of the global financial crisis (the budget deficit increased from 1.2 percent in 2007 to 7.9 percent in 2008, but was been gradually reduced to less than 4 percent in 2011) and recent increases in food and energy prices. The SBA staffs believe that explaining the deviations from the inflation target to the public has been sufficient in restoring the credibility of the policy.

6. **In implementing their monetary policies, the authorities still faces challenges**. These are related to the dominance of supply shocks, high exchange rate pass-through, high dollarization, underdeveloped financial markets, weak transmission mechanism (related to previous challenges), and limited capacity for tax raising (the latter meaning that everything else given the monetary policy has to do more in terms of demand management).

7. **Key features of Armenia's inflation targeting framework**.

- Price stability is the primary objective, while other targets are subordinate to it.
- The Central Bank of Armenia (CBA) has a clear quantified inflation target of 4 percent +/-1.5 percent. The inflation target is measured by the annual rate of change in the headline Consumer Price Index, as calculated and published by the CBA. The target is reset each year in agreement with the government – in the context of the annual budget and has been revised upward on two occasions. The forecast horizon is officially three years (previously, one year), although, in practice, the one-year forecast horizon is given significant consideration. The key policy rate is the one week repo rate.
- The CBA is accountable to parliament, through regular reporting requirements and this reporting requirement can be enhanced in case the target is missed.
- The decisions and minutes of the CBA Board meeting are regularly published.
- In case of failure to meet the target, there are no explicit sanctions.

Inflation Targeting in Brazil

1. **Brazil adopted inflation targeting (IT) in July 1999 as the new nominal anchor to stabilize expectations**. This was in response to the balance of payments crisis of 1998 which rendered the then exchange rate band ineffective as a nominal anchor. The Central Bank of Brazil (CBB) adopted the inflation targeting framework as the main tool to immediately contain the pass-through from the devaluation to inflation and also to re-anchor inflation expectations after the 1998 balance of payments crisis. This meant abandoning the exchange rate band as the main anchor of monetary policy.

2. **Unlike many emerging economies, Brazil adopted a "big bang" approach to inflation targeting.** The CBB over time had built strong technical capacity and institutional structures in the conduct of monetary policy. This meant a relative short transition period (less than six months) before switching to a full-fledged IT in July 1999.

3. **Choice of index to use as target**. Brazil uses the consumer price index as the basis for measuring the inflation target for two reasons: (i) ease of understanding by the general public; and (ii) ability to establish inflation target on the basis of a widely known and understood index. However, the CBB had the room to adjust the target on the basis of supply shocks. They viewed adjusting the target as a way of maintaining their credibility and also as a means of demonstrating flexibility in the conduct of monetary policy.

4. **Setting of inflation target**. The inflation target and the tolerance band[12] of ±2 percent in Brazil s set by a national monetary council (CMN)—an independent body from the CBB based on a proposal by the Minister of Finance. The CBB then chooses a point target within this range set by the CMN. Both the interval target and the point targets are set for a 24month time horizon.

5. **Implementation process**. Brazil had a monetary policy committee (Copmom) made up of nine members that met regularly (monthly) to decide on interest rates—by a majority vote to steer inflation and inflation expectations towards its long term steady state path.

6. **Transparency and accountability:** The CBB regularly publishes an inflation report (including fan charts similar to that produced by the Bank of England); schedule of monetary policy meetings and the minutes with a short lag. There was also a requirement for the Governor to write an open letter to the Minister of Finance addressing reasons behind missing the set inflation target (should it happen) and measures taken to reverse the trend.

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[12] This band has been ±2 percent in most cases but has been changed to ±2.5 percent between 2003 and 2005 to respond to shocks.

Inflation Targeting in Ghana

1. **The Bank of Ghana (BoG) transitioned to inflation targeting (IT) in 2002 to re-establish credibility and anchor inflation expectations**. This required a series of reforms to both the fiscal and monetary policy frameworks as well as supporting legal and regulatory reforms.

2. **A new central bank Act was introduced in 2002 to give legal backing to the BoG in the conduct of monetary policy. The Bank of Ghana Act (2002):**

- Granted the BoG operational and instrument independence in the conduct of monetary policy.
- Set the primary objective of the BoG as maintaining stability in the general level of prices independent of instructions from the Government or any other authority. The BoG also had a secondary objective to support the general economic policy of the government and promote growth and effective and efficient operation of the banking and credit systems, but these should be achieved without prejudice to the primary objective of price stability.
- Addressed the issue of fiscal dominance through placing a limit on government borrowing from the central bank in any fiscal year not exceeding 10 percent of previous year's tax revenue.
- Established the monetary policy committee (MPC), made up of seven members, with the sole responsibility for the formulation of monetary policy. The MPC met on bi-monthly basis. The timing was chosen by taking into consideration the availability of new data/information for the MPC and also timeliness for the MPC decisions to make an impact. The MPC decided that two-monthly meetings were long enough to have additional relevant information and short enough to remain relevant in the market to shape expectations.

3. **As part of the transition arrangement, a framework was put in place to ensure policy coordination between the fiscal and monetary policy authorities.** A joint committee was established between the Ministry of Finance and the BoG to meet regularly to set inflation targets as part of the annual budget preparation process. The committee also reviews macroeconomic performance on weekly basis which feeds into the MPC process.

4. **Ghana chose the consumer price index as the basis for measuring the inflation target**. This was chosen due to its high frequency of availability and relative quality as well as ability of the general public to understand its use. However, the BoG monitors closely a set of core inflation measures which is very critical in the monetary policy decision process.

5. **The BoG used the transition period to strengthen its monetary policy implementation capacity and to close some key data and information gaps that are critical to the IT process**. To increase the effectiveness of the transmission of monetary policy and enhance transparency and competitiveness of the interbank money market, the BoG introduced a new interest rate corridor framework. The corridor was bordered by the reverse repo rate (policy rate minus a margin—200bps) at the lower limit and a policy rate plus a margin (100bps) bordered the corridor on the upper limit. The interest rate differential was intended to create an incentive for banks to deal among themselves; recourse to the BoG expected to be the last resort. The BoG introduced an overnight repo to provide the BoG a presence in the market to increase its ability to influence short-term interest rates in the market.

6. **The BoG also started to build its modeling and forecasting capacity with the help of the Fund and the Bank of England**. The BoG introduced the use of surveys to measure businesses' and consumers' confidence and expectations. In addition, the BoG also developed a composite index of economic activity as a tool to help the MPC to gauge the pulse of economic activity in deciding on the direction of monetary policy.

7. **A new communication strategy was introduced to increase transparency and accountability**. The BoG developing the capacity to publish a comprehensive set of reports cutting across all the key sectors of the economy on regularly basis as part of the MPC process. Key reports covered: external sectors; fiscal sector; monetary and financial sector; banking sector; real sector; and assessment of current price conditions and inflation forecast. These reports are published every other month after MPC meetings.

8. **Ghana implemented IT lite from 2002 to 2007 before formally announcing a switch to a full-fledged IT in May 2007.** During this period, the BoG maintained a single nominal anchor which is inflation itself. However, the BoG constantly used multiple set of indicators—including monetary aggregates—to assess the appropriateness of monetary policy stance during the MPC deliberations. Monetary aggregates continue to be relevant in Ghana given the highly cash-based economy and relatively low development of the financial sector.

9. **Implementation of IT in Ghana however, continues to face challenges.**

- Re-emergence of fiscal pressures has challenged the IT process since 2008. Difficult to incorporate fully real sector developments into monetary policy decision making due to lack of quality and high frequency real sector data

Inflation Targeting in Moldova

1. **The Moldovan authorities adopted their IT targeting framework to help establish macroeconomic stability**. Inflation continued to hover above 10 percent and the National Bank of Moldova (NBM) faced increased challenges and difficulties in controlling monetary aggregates, owing in part to significant inflows of private remittances. The decision (to adopt an IT framework) was facilitated by the adoption of the new NBM Law in mid-2006, which clearly established price stability as the main goal of monetary policy.

2. **Under the new IT framework, the central bank has full independence, including instrument independence.** The law provides: (i) the right to recapitalize; (ii) protection from external pressure; (iii) term of office exceeds election cycle; (iv) prohibition of conflict of interest; (v) fit and proper practice; and (vi) disclosure requirements.

3. **However, efforts of fiscal consolidation continued to be challenged**. Moldova had primary account surpluses in 2006-07 (the overall deficit was in deficit of 0.2 percent of GDP in 2006 and 1 percent of GDP in 2007), before the global financial crisis hit. While the primary balance was in deficit of 5.7 percent of GDP in 2008, it was reduced to a deficit of 1.4 percent of GDP in 2010 (for the overall deficit, 6.7 percent of GDP and 2.2 percent of GDP, respectively). Direct financing of government from the central bank is prohibited.

4. **The NBM continues to monitor money growth closely** as an indicator of the state of domestic demand, and has targets on its balance sheet (NIR and NDA) under an IMF-supported program. NBM intervenes in the foreign exchange market to smooth erratic exchange rate movements, but does not resist sustained depreciation pressures. However, the central bank continues to face challenges related to high dollarization, low monetization and financial development, imperfectly operating money and foreign exchange markets, and related to all these, a weak monetary transmission mechanism.

5. **Moldova shifted to an inflation targeting framework in January 2010**. The inflation target was set 5 percent +/- 1 percent for 2010, and changed to 5 percent +/- 1.5 percent in 2011. The inflation target is measured by the annual rate of change in the headline CPI. The NBM’s sets a base interest rate as its reference rate, which is also the rate it uses to sell and buy central bank certificates to commercial banks.

South Africa—Experience with the Transition to IT

1. **South Africa was the first SSA country to adopt an inflation targeting (IT) framework**. Its transition to IT was implemented gradually like a large number of countries around the globe, and was motivated by a desire to enhance transparency and strengthen policy implementation, with the view to establish macroeconomic stability.

2. **South Africa adopted an informal IT framework in March 1998**. Before moving to fully fledged IT, the South Africa Reserve Bank moved to "eclectic" or "pragmatic" inflation targeting. At the time, the governor of the central bank announced an informal inflation target of 1 to 5 percent. But still, the Reserve Bank continued to target growth in money supply (M3) and other monetary aggregates as its main policy anchor. It also continued to monitor closely developments in other financial and real indicators to decide on the appropriate level of short term interest rates. Policy intentions for interest rates were sought through an adjustment of liquidity offered at the daily tender for repurchase transactions; a large provision of liquidity would signal a preference for an accommodative monetary stance through a decline in the repurchase rate, and vice versa.

3. **Although the informal IT framework was considered a success, the Reserve Bank decided to move to formal IT in February 2000**. This move was motivated by:

- ***The weakening of the relationship between monetary aggregates (growth in M3 and credit to the private sector) on one hand and nominal spending and prices on the other***. This resulted from structural changes in the South African financial sector which altered the transmission channels. As a result, M3 increased consistently above target while inflation declined, creating some uncertainty and sending mixed signals to the general public, as interest rates remained relatively unchanged.

- ***To better anchor inflationary expectations***. Under the informal IT, the governor of the central bank indicated that an informal target of 1 to 5 percent would guide monetary policy decisions. But at the same time, guidelines were announced for the rate of growth in monetary aggregated, including M3. The move to formal IT would provide credible and clear target, which would help reduce inflation.

- ***Improve policy coordination***. Informal inflation targeting could not elicit the same commitment to policy coordination that would follow from if the government formally adopted or endorsed the inflation target. Thus, the move to formal IT would help establish a structured decision process, providing a push for stronger coordination between policies, particularly between the central bank and the ministry of finance. […]

- ***Enhance discipline and central bank accountability***. To reduce uncertainty and enhance its credibility, it was deemed necessary to explain the deviations from target—especially that these were significant at the time of the move to IT (see below).

4. **The transition to fully fledged IT was not without challenges**:

- ***The Reserve Bank enjoyed strong independence from the start***. The constitution upholds the independence of the Reserve Bank. The Bank Act (1989) defines the primary goal of the central bank as protecting the domestic currency, and stipulates that the Reserve Bank must perform its functions independently. However, the legislation provides only for instrument independence. The government in consultation with the Reserve Bank determines the inflation target, while the instrument to achieve the target is left to the choice of the central bank.

- ***The choice/definition of the inflation index favored wider acceptance by the public***. While there were three key measures for inflation (headline, core, and headline excluding mortgage interest costs (CPIX)), the South African authorities opted for the CPIX because (i) this was not affected by changes in the repurchase/policy rate (while the headline and core were); (ii) the CPIX had a wide geographical coverage, is understandable and better accepted as a cost of living measure by the public. The authorities were however cognizant that the CPIX was prone to exogenous shocks.[13]

- ***However, the setting of the inflation target was a challenge***. Initially, the target was specified in terms of an annual average rate of increase in the CPIX (between 3 and 6 percent for 2002 and 2003, and between 3 and 5 percent for 200 4 and 2005). In late 2003, it was replaced by an end of year target of 3 to 6 percent for beyond 2006. The change was motivated by difficulties in achieving the average target, a desire to maintain a reasonable measure of latitude, target a gradual reduction in inflation (not too costly in terms of growth), and simplify the target to better anchor expectations.

- ***The Reserve Bank had to develop adequate monetary policy decision process***. Under the formal IT, the central bank needed to make explicit its inflation forecast. Furthermore, the MPC, chaired by the Governor had to rely on a large number of indicators and a set of newly developed models to better assess the monetary stance and decide whether there needs to change in the repurchase rate—the main operational target under the IT framework. The monetary policy decision was in the end not mechanical but rather the culmination of an elaborate evaluation of macroeconomic conditions and required the professional judgment of MPC members.

- ***The use of an escape clause created confusion initially***. The escape clause—designed to allow for influence of exogenous shocks—has caused problems in communicating monetary policy decisions. This was eventually replaced by an explanation clause (2003), which was used in case of failure to achieve the target to

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[13] The CPIX was abandoned in 2008, and the SARB begun to target the headline inflation from 2009 onwards.

inform the public about the "nature and anticipated impact on inflation of the exogenous shock, and the policy response and the projected time for returning to target range.

- ***Reforms were needed to improve monetary policy implementation***. Notably, the Reserve Bank amended the repurchase system introduced in 1998. The repurchase rate was fixed to eliminate ambiguity about the policy signal. At the same time, the Reserve Bank introduced a weekly repurchase tenders with 7-day maturity, and a discretionary daily final clearing repurchase (supplementary tenders) with a 1.5 percent symmetric penalty rate was also added.

5. **The main challenges to the IT framework were generated by external environment**. South Africa experienced substantial swings in the exchange rate, which complicated monetary policy management and the transition to IT. The exchange rate was left to float in response to demand and supply forces as (i) earlier attempts to pegging the exchange rate proved unsuccessful; (ii) there was conviction that stability could be achieved through creating the appropriate underlying economic conditions; and (iii) a policy choice was made not to abandon the flexibility of monetary policy.

Turkey—Experience with the Transition to IT

1. **Turkey transitioned to an inflation targeting (IT) framework as the sole credible avenue to resolve an economic crisis (February 2001)**. The move to IT emerged as the natural (not to say the only) alternative as the authorities abandoned in a hurry a crawling peg in favor of a floating exchange rate regime to stabilize the macroeconomic situation. However, the authorities preferred a gradual transition to IT, and at the beginning of 2002 the central bank announced the adoption of an "implicit inflation targeting" regime until what they viewed as a reasonable set of conditions is satisfied. The transition phase lasted three years and a fully fledged IT framework was later adopted, at the beginning of 2006.

2. **The transitional "implicit IT" framework relied on two nominal anchors pending improvements in the macroeconomic and institutional environment**. The central bank (CBT) targeted both monetary aggregates and at the same time announced an inflation target with the objective to reduce uncertainty and influence expectations. The choice of this hybrid regime was motivated by concerns about the weak links between monetary targets and inflation (or the risk that the public finds the monetary target as not credible). The policy environment was also a key concern, or too risky to move to a fully fledged IT framework because of the very high level of domestic debt. The economy was highly vulnerable to increases in interest rates and runs on the currency with large adverse effects on import prices and capital flows. The CBT had also concerns about the backward looking approach to pricing, and the fragile state of the financial sector.

3. **The strengthening of the CBT independence and the recognition of the role of fiscal policy were central to the success of the transition to IT**. The primary objective of CBT was redefined as to achieve and maintain macroeconomic stability and the CBT Law was amended in April 2001 to allow the CBT to fully choose its policy instruments (establishing its instrument independence). Further, CBT accountability was strengthened (including by prohibiting the CBT granting advances to the government or extending credit to the Treasury or public institutions. The recognition by the government of the role of fiscal discipline in managing expectations (under heavy fiscal dominance) and the fact that the CBT and the government begun to jointly set the targets created critical coordination between fiscal and monetary policies sending a strong message of fiscal discipline and enhancing central bank credibility.

4. **But still, during the implicit IT, monetary policy faced significant challenges**.

- Monetary policy lacked control over the longer end of the yield curve, because under high public debt and short term maturities, the risk premium was highly sensitive to short term developments leading to risks of excess variability of the exchange rate.
- The central bank had to be careful and could not raise the interest rate (because of the high public debt) relying almost exclusively on pushing for fiscal reforms, while

focusing its communication strategy on convincing the public about ongoing improvements to macroeconomic fundamentals.

- At the start of implicit IT, monetary policy lacked the orthodox features of a formal IT framework, which were developed gradually during the transition, including:
  - Improving the technical infrastructure through improvements of inflation forecasting, the understanding of the transmission channels, and the strengthening of policy analysis.
  - Enhancing the communication strategy, by progressively publishing statements regarding the central bank assessment of the inflation outlook and periodic reports on qualitative forecast.
  - Enhancing the transparency of the decision process (including the role of the MPC, and the predictability and timing of policy decisions) and strengthening the accountability of the central bank (by requiring bank officials to inform the public on monetary policy operations, and informing the public on reasons when policy target are not met.
  - And in 2005, introducing a new CPI measure, and rebasing the Turkish Lira (dropping 6 zeros) prior to the adoption of formal IT.

5. **Key features and innovation of Turkey's full inflation targeting framework**.

- The adoption of fully fledged IT was announced one year ahead of its launch, in late 2004 for start date of implementation beginning of 2006. To further anchor public expectations, the authorities declared that Turkey would sign a new program with the IMF (2005-2007) and used the accession the EU as a second anchor. At the same time, additional macroeconomic policy reforms were announced as part of the program with IMF—mostly focusing on improving the quality of fiscal discipline.
- The inflation target is measured by the inflation rate in the new headline CPI index, was set jointly with government, and was an end-year point target for 3 years 2006, 2007, and 2008 (5 percent, 4 percent, 4 percent, respectively).
- A symmetric uncertainty band (+, - 2 percentage points) was set around the target. In case of deviation from target, the CBT would explain the reasons—including by providing information and the measures to be taken to the government (CBT Law, Article 42) (*For the purpose of the program with the Fund, the CBT announced quarterly inflation path and uncertainty bands for each quarter*.)
- The new IT framework allowed for some flexibility to tolerate short term temporary shocks to inflation. The CBT would react to shocks only if the medium term inflation target is in jeopardy. (*Temporary shocks could change inflation forecasts rather than inflation targets*).

- Steps to improve monetary policy transparency included the publication of a new quarterly report “the inflation report”, which inter alia would give inflation forecasts for a horizon of six quarters; the publication of summary evaluations of the Monetary Policy Committee (MPC) and its position in respect to inflation (to report to be issued 5 working days following the MPC meeting).

- The MPC met once a month at pre-announced dates. With the move to formal IT, the role of MPC changed from advisory to decision making with regards to interest rate and communication policy and on the decision jointly with the government of the inflation target. (The Undersecretary of the Treasury attended the MPC meetings by did not have the right to vote).

6. **Key lessons**. The implicit IT showed that coordination between fiscal and monetary was crucial, and without disciplined fiscal policy, there is never a right time for starting to implement an IT. Thus, fiscal and political commitments are at the top (this means people in charge are committed implies “credibility of ability”; supported by structural reforms, plus sufficient commitment to the floating exchange rate regime. (*Political support, institutional independence, and commitment*.)