“Changing Financial Landscape, Financial Crises and Monetary Policy Frameworks: International Experiences and Lessons for Africa"

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Outline

- Financial Crisis and Conventional Monetary Policy Framework
- Monetary policy responses to recent financial crises: international experiences (i.e., US, Europe, Asia, BRICs)
- New toolkit (i.e. zero interest rate, quantitative easing, credit easing, …) for central banks and relevance to Africa
- Price stability vs. financial stability as monetary policy objectives
- Rules-based vs. discretionary monetary policy making
- Questioning central bank independence (pressure from governments, markets and the public)

Financial Crisis and Conventional Monetary Policy

- The most serious financial crisis of the post war era has reopened the debate about monetary policy and institutions.
- One view: Monetary policy went off the right track and abandoned sound principles of inflation targeting due to
  - political pressures to avoid at all cost a recession in the early part of the 2000s and
  - a misplaced excessive fear of deflation.

Conventional Monetary Policy

- Others argue instead that inflation targeting has failed because it did not take into proper account the risk of bubbles in real estate and in financial markets.
  - Rules have to be more flexible to allow monetary policy to react to a wider variety of variables in addition to the price dynamics of goods and services.
- Others have argued instead that inflation targeting is fine but the level of target inflation is too low and should be raised to avoid risk of deflation and monetary traps.

Monetary policy responses to recent financial crises: international experiences

- The US and the global economy experienced in 2008-2009 their worst recession in decades
- The housing and mortgage bust led to an economy wide recession in the US as there were spillovers of the housing recession to other sectors of the economy (autos, manufacturing, consumer durables)

US Response

- The liquidity and credit crunch that started in the sub-prime mortgage market spread to all credit and financial markets as this was not just a sub-prime problem: sub-prime, near prime and prime mortgages, commercial real estate mortgages, credit cards, auto loans, student loans, leveraged loans
- Also the US consumers (consumption is 70% of aggregate demand) were shopped-out, saving-less and debt-burdened

US Response

- This was both a liquidity crunch and a credit crunch driven by serious solvency problems given over-leverage of households, financial institutions and parts of the corporate sector
- The myth that the rest of the world could decouple from the US recession was shattered in 2008: there was massive re-coupling first in financial markets and then in the real economy. Recession in most advanced economies (US, Eurozone, Japan); recession or massive growth slowdown in emerging market economies)
- The Great Recession of 2008-09 bottomed out in late 2009 when most economies started to recover. But the recovery in DM since then was been anemic, sub-par, below trend, a U-shaped recovery. Stronger in 2015 as deleveraging more advanced?

US Monetary Policy Response

- The Fed reduced the Fed Funds rates 11 times in 2001, by 475pbs to a rate of 1.75% as the economy entered a recession.
- Faltering in the US recovery in the fall of 2002 led the Fed to cut the Fed Funds again, down to 1.25% in November 2002 and down to 1% in June 2003 as a jobless recovery emerged during the war with Iraq.
- In 2004, as growth of output and jobs picked up and inflation started to increase, the Fed started to increase the Fed Funds rate in 17 consecutive steps bringing it to 5.25% by June 2006 and then pausing in August 2006.
- The risk of a US hard landing and the market turmoil in the summer of 2007 led the Fed to cut rates starting in the fall of 2007 from 5.25% to effective 0% in 2008
- Massive quantitative easing in 2008-13 during and after the financial crisis: unconventional monetary policy. Fed started tapering QE in Dec 2013. When will it exit ZIRP?

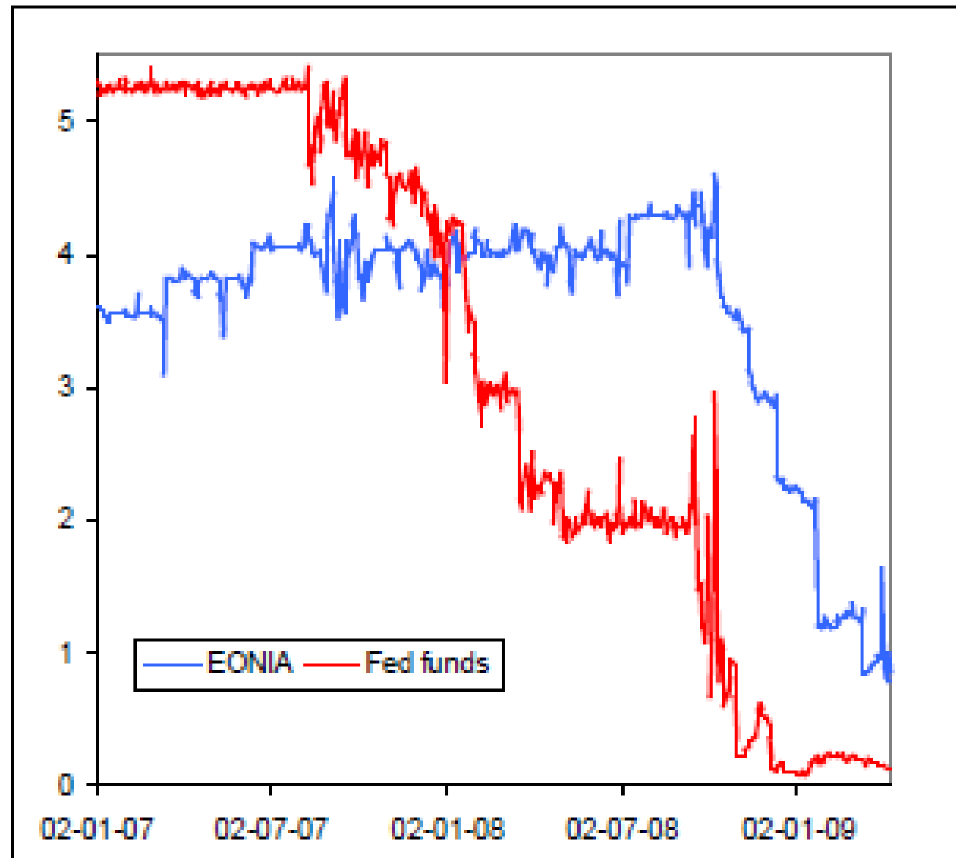
Response-Fiscal Policy

- Fiscal stimulus package in 2008 as the economy entered a recession
- As second $900 billion fiscal stimulus package legislated in early 2009
- Deficit for 2009 rose to be $1.4 trillion but is now much lower ($600 bn) or 4% of GDP in 2013
- Fiscal path – deficit and debt - is clearly unsustainable as over the next decade deficits will rise again unless entitlement spending is reformed
- Difficult issue of when to exit from the fiscal stimulus. The U.S. postponed till 2012 but serious fiscal drag in 2012-13 given spending cuts/sequester and rise in taxes
- 2013 showdown on government shutdown and debt ceiling

Monetary Policy Response by European Central Bank (ECB)

- ECB injected liquidity into European banks unable to obtain short-term funds in market.
- Federal Reserve used Euro-dollar swaps to make dollars available to ECB to lend to banks.
- ECB did not lower interest rates until October 2008 because of its focus on inflation.
- Euro fell against the dollar due to “safe haven” flight to US Treasury securities.

Interest Rates in the Eurozone and the US (interbank rates)

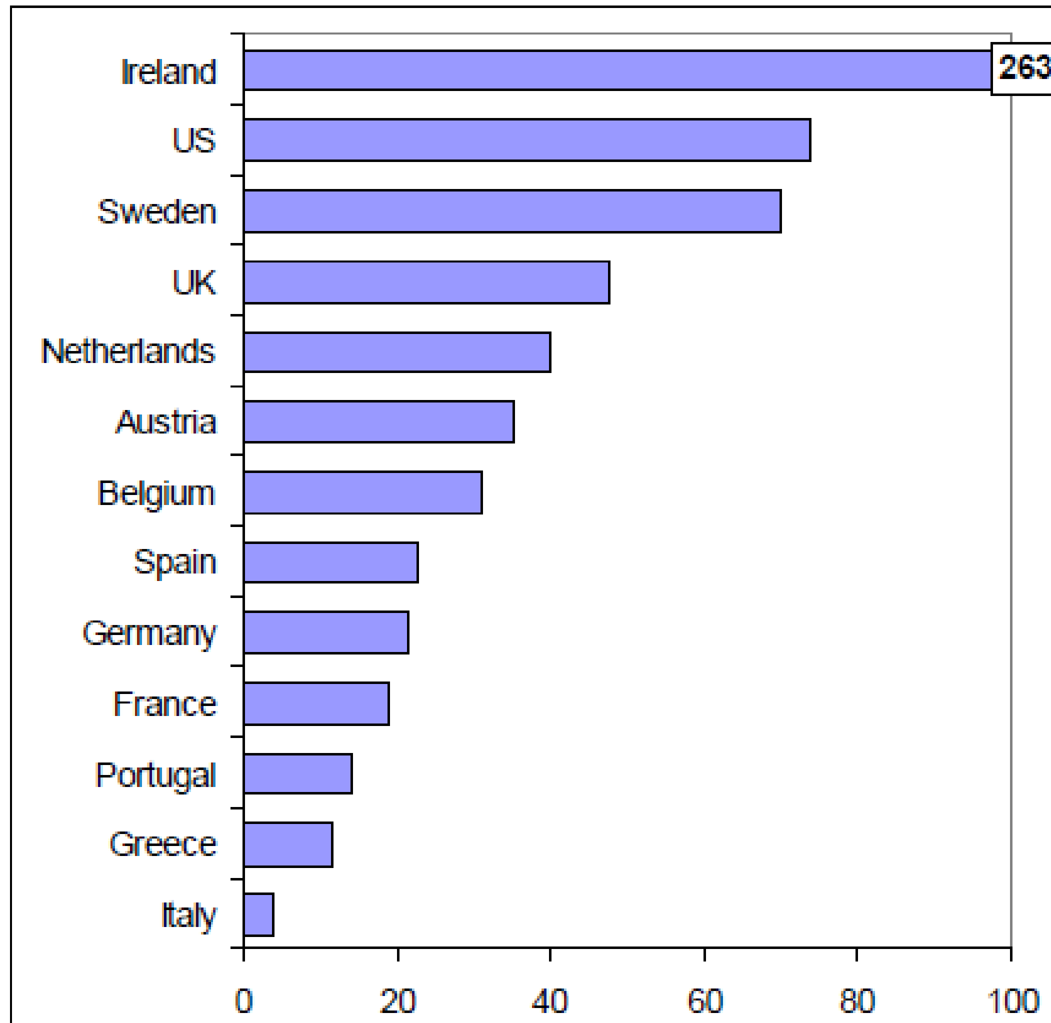


Sources: Roubini (ECB, Federal Reserve Bank of New York)

Financial Sector Bailouts in US & Europe

- TARP and Federal Reserve programs in US
- National programs in European countries, due to absence of Eurozone-wide regulator.
- “Beggar-thy-neighbor” effect, as first Ireland gave deposit guarantees, then UK, then Netherlands, to avoid bank deposit flight.

Public Support to the Financial Sector (as of 18 February 2009, % of GDP)



Source: International Monetary Fund (2009).

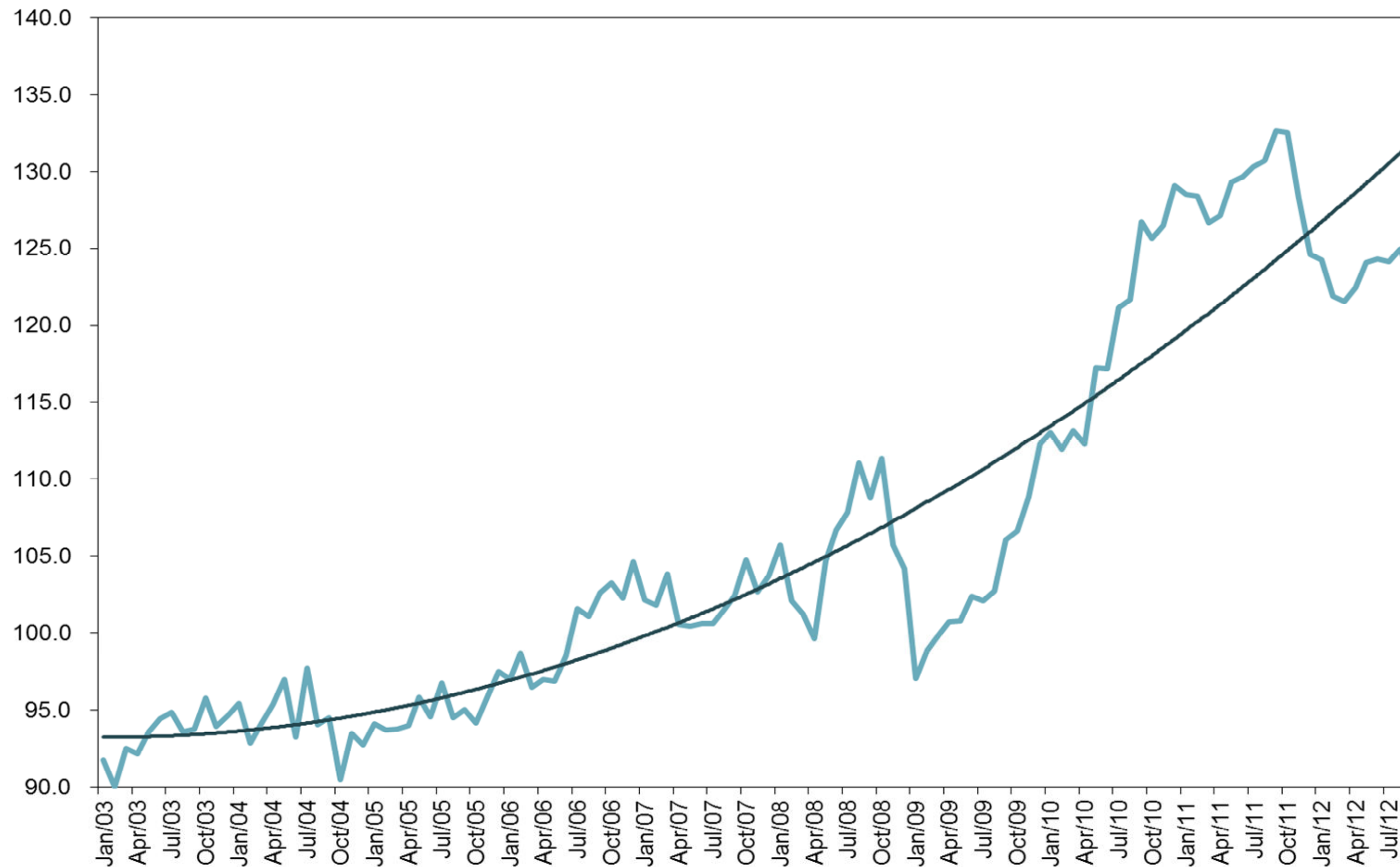
Fiscal Policy Responses to Recession

- Automatic Stabilizers of falling taxes, rising welfare and unemployment payments kick in as incomes fall and unemployment rises.
- Discretionary Fiscal Stimulus enacted in most countries, depending on their fiscal positions.
- European countries limited by Stability and Growth Pact to 3% fiscal deficits, except in time of "exceptional economic distress."

Monetary policy responses to recent financial crises-BRAZIL

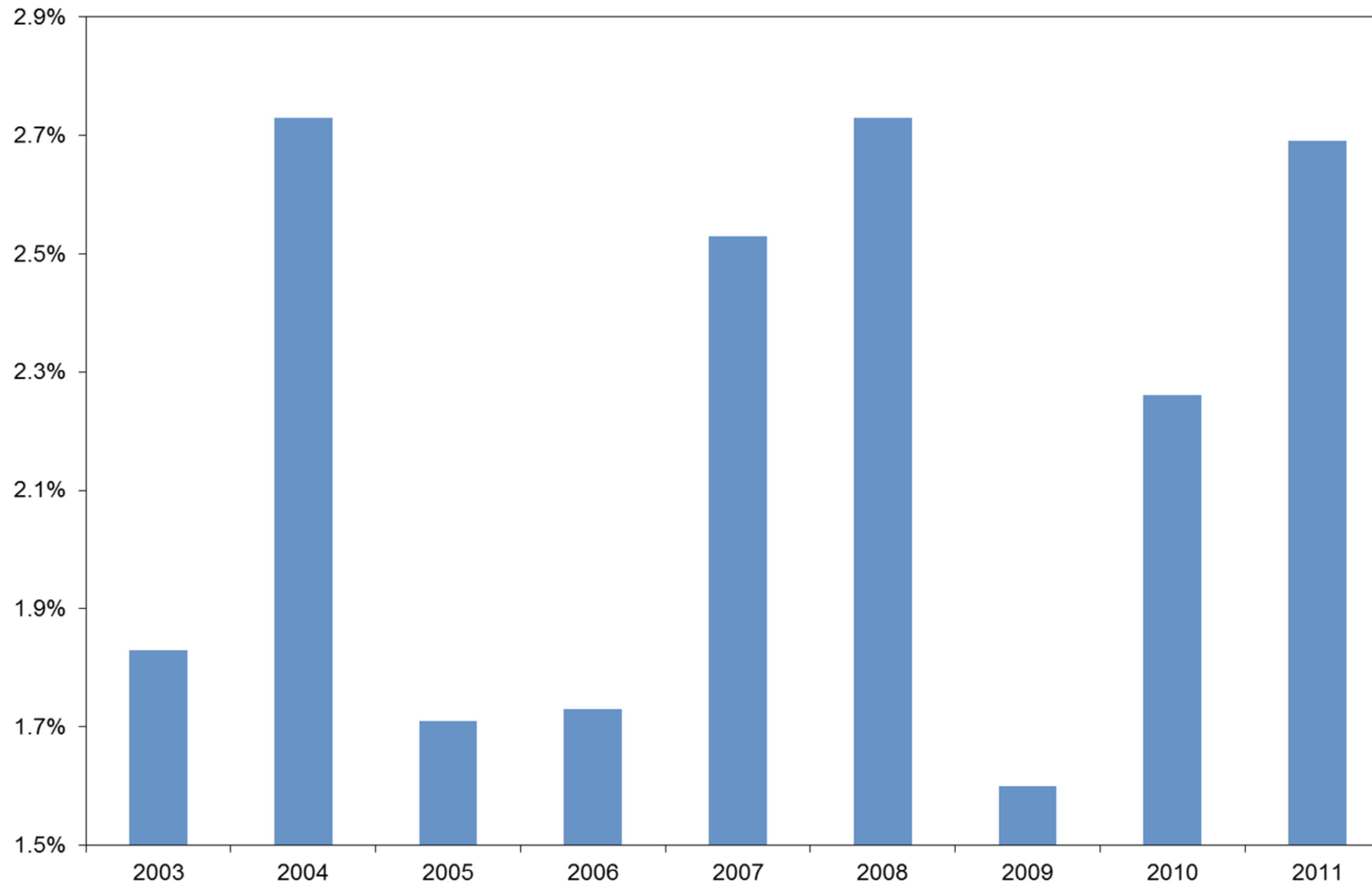
- Between 2003 and 2010, Brazilian terms of trade soared on the back of strong growth in other EMEs, notably China and India
- TOT rose to unprecedented levels, economy enjoyed a large increase in capital inflow, most notably in foreign direct investment.
- Between 2003 and 2010, the economy grew, on average, some 4.5%, spurred by robust domestic demand. Consumption expanded by about 5.5%, while investment grew more than 7.5% yearly, on average. Investment as a share of GDP climbed to 20% in 2010, the highest level in more than twenty years

Brazil: Terms of Trade, 2003-2010



Source: Funcex

Brazil: FDI as a Share of GDP



Source: Central Bank of Brazil

Policy Reponses after 2011

- The aggressive monetary stance undertaken by advanced economies in 2009 and 2010 and the resulting build-up in global liquidity hit the Brazilian economy sharply in early 2011.

- The rise in commodity prices led to inflationary pressures, while the increase in capital inflows eased credit conditions and resulted in a significant appreciation of the Brazilian real. To illustrate the significance of the rise in capital flows, the average net inflow (the sum of portfolio flows and FDI) between 1995 and 2008 amounted to some 2.7% of GDP, while in the twelve months to August 2011, these flows were equivalent to 6.1% of GDP.

Policy Reponses after 2011

- In August 2011 the government took steps to revert persistent exchange rate appreciation:
  - More aggressive exchange rate intervention
  - Capital Controls
  - An interest rate easing cycle, started in August 2011, and lasting through October 2012. Brazil´s policy rate, the Selic, was reduced by 525 basis points, from 12.5% to 7.25%.
- In early 2011, the BCB introduced macroprudential measures apparently in lieu of the usual interest rate hikes to stem inflationary pressures and normalize credit and liquidity conditions. These measures included a substantial increase in reserve requirements, which had been reduced in 2008 to counteract the effects of the global crisis, as well as stricter regulations on risk-weighted capital to curb excessive lending by banks for the purchase of durable goods

Dealing with Structural Problems

- The sharp slowdown that has marked the Brazilian economy since 2011 has led the government to reassess its policy stance.
- The view that problems were mostly cyclical changed to one where structural issues were recognized to be at the forefront.
  - High labor costs
  - Onerous tax structure
  - Infrastruture bottlenecks
- There has since been a pronounced concern over manufacturing and over how to boost industrial production. Some measures have been positive. Others less so: exchange rate intervention to prevent currency appreciation, the rise of protectionism.

Conventional and Unconventional Monetary Policy

- Monetary policy mainly acts by setting a target for the overnight interest rate in the interbank money market and adjusting the supply of central bank money to that target through open market operations
- The central bank effectively manages the liquidity conditions in money markets and pursues its primary objective of maintaining price stability over the medium term by steering the level of the key interest rates.

Conventional Monetary Policy

- Policy rates fixed at regularly-held policy meetings, and in order to improve policy clarity and transparency, central banks increasingly avoided changes in that policy rate in-between meetings, barring exceptional circumstances
- Other elements of policy transparency included publications of the central bank's growth and inflation forecasts and of meeting minutes

Unconventional Monetary Policy (UMP)

- In UMP, the economic shock is so powerful that the nominal interest rate needs to be brought down to zero
- At that level, cutting policy rates further is not possible, so any additional monetary stimulus can be undertaken only by resorting to unconventional monetary policy tools

UMP

- UMP measures may be warranted even when the policy interest rate is above zero if the monetary policy transmission process is significantly impaired
- Under these circumstances, central banks have two (not necessarily mutually exclusive) alternatives, namely (i) to reduce the short term nominal interest rate even further than in normal conditions, and (ii) to act directly on the transmission process by using non-conventional measures

UMP

- Some of these non-conventional means include:
  - Providing long-term liquidity to banks to support the flow of credit,
  - lowering long-term rates through bond purchases, and
  - stabilizing specific markets such as mortgage lending.
- Central banks have also issued
  - “forward guidance,” in which they announce an intention to maintain an accommodative stance for an extended period.

UMP or “MP-Plus”

- The combination of exceptionally low policy interest rates and unconventional policy measures are referred to as **“MP-Plus”** to indicate that these policies go beyond conventional monetary policy in terms of tools and objectives.

Objectives of MP-Plus

- MP-Plus benefits the macroeconomy and strengthens financial stability
  - Mitigates short-term instability in financial markets by providing liquidity to banks and buying specific assets
  - MP-Plus also indirectly limits stress in the financial sector to the extent that it succeeds in preventing a sharper economic downturn.

Objectives of MP-Plus

 - By encouraging economic activity through its easing of credit conditions, MP-plus can help strengthen private and public balance sheets and thus make a more durable contribution to financial stability.

- This of course assumes that firms take advantage of lower longer-term rates by extending the maturity profile of their debt

Four main categories of MP-Plus

- *Prolonged periods of very low interest rates,* sometimes combined with forward guidance on the length of time for which rates are expected to remain low;
- In order to cement expectations of low rates for an extended period, the Fed, the BoE and later the BoJ made specific conditional commitments on the future path of their policy rate. These were at times time-linked, or data-linked (they would not be hiked until specific inflation and/or unemployment levels had been reached).

Categories of MP-Plus

- *Quantitative easing* (QE), which involves direct purchases in government bond markets to reduce yield levels or term spreads when the policy rate is at or close to the lower bound;

Categories of MP-Plus

- *Indirect credit easing* (ICE), in which central banks provide long-term liquidity to banks (sometimes with a relaxation in access conditions), with the objective of promoting bank lending; and
- *Direct credit easing* (DCE), when central banks directly intervene in credit markets—such as through purchases of corporate bonds or mortgage- backed securities—to lower interest rates and ease financing conditions (and possibly mitigate dysfunction) in these markets.

Others Include

- **Easing of collateral rules.** This went hand in hand with the extension of refinancing operations, but also aimed at making it easier for banks facing specific difficulties to access central bank refinancing and avoid a potential liquidity crisis.
- **Purchases of foreign exchange.** Used by the Swiss National Bank (SNB) in response to upward pressure on the franc and deflationary pressures. The SNB later introduced a cap on the EUR-CHF exchange rate, committing to unlimited FX purchases (and a corresponding increase in the balance-sheet, which led to a rise in excess liquidity, as most purchases were not sterilized) in order to enforce that cap.
- US dollar swap lines

Effectiveness of UMP

- Unconventional policies did experience **a fairly quick success in reducing money market distortions** and lowering the excessive risk premiums that had emerged in several segments of financial markets in the wake of the Lehman Brothers default in late 2008. For example:
- The three-month US Libor-OIS spread, which had spiked to more than 300 basis points in late 2008 (as interbank loans froze) returned to very low levels as early as 2H2009;

Effectiveness of UMP

- Corporate and mortgage credit spreads also narrowed from the highs reached at the time of the Lehman default. This meant that overall financial conditions, which had tightened sharply up to late 2008 even as the Fed reduced interest rates, eased back from that time onwards and returned to neutral levels by early 2010;
- Cascading bank failures were avoided, staving off a repeat of the string of banking collapses in the early 1930s that set off the Great Depression.

Effectiveness of UMP

- Several economic studies have also suggested that the mix of asset purchases and forward guidance **have been successful in lowering the term premium in longer-term interest rates, and in compressing credit spreads** across a wide range of assets. IMF review of existing literature pointed out to a cumulative effect on US Treasury yields of between 90 and 200 basis points due to the various bond purchase programmes (see "Global Impact and Challenges of Unconventional Monetary Policies", IMF Policy Paper, September 2013). For the UK, estimates ranged from 45 to 160 basis points.
- However, the impact of unconventional policies seems **uneven across different markets**. The IMF paper points out that in the US, MBS and agency debt purchases did seem to have a noticeable depressing impact on mortgage yields. In the euro zone and the UK, there is plenty of evidence that the financial system remains fragmented.

Effectiveness of UMP

- Furthermore, in the case of the UK and the euro zone, the impact of unconventional policies on “kick-starting” credit to the private sector remains in doubt, at least when it comes to the non-housing corporate sector. This is particularly acute in the euro zone, where **credit to the non-financial private sector is continuing to contract** – prompting the ECB (in June 2014) to introduce Targeted Long-Term Repo Operations (TLTROs) to ensure that additional liquidity injections do end up flowing through the real economy.
- Overall though, empirical studies suggest that **on balance unconventional monetary policies have had a positive impact on growth and inflation**. The IMF research also concludes that other countries – which did not implement these policies – benefitted from a positive spill-over effect early on in the aftermath of the financial crisis, though subsequent benefits were more difficult to ascertain.

Relevance to Africa?

Objectives of Central bank Operations

1. Pre-crisis:

- Central bank operations concentrated around delivery of the policy rate to the money market.
- Policy implementation is achieved via **maintaining a "shortage"** ("structural deficit") of funds that is filled via repo transactions – had the effect of keeping money market rates broadly in line with policy rates.
- Some attempts to refine the system via introduction of "corridors" around implementation rates in order to help reduce volatility of overnight rates to support financial stability objectives.

Relevance for Africa

- **Preconditions for using MP-Plus**
  - It appears that the **pre-conditions for using unconventional policy tools** are:

    - Interest rates at or near the zero lower bound;
    - Risks of excessively low inflation or deflation;
    - Failure of the monetary policy transmission mechanism;
    - Sharp spikes in risk aversion amid huge financial and economic uncertainty

  - In theory, of course, there is nothing barring African central banks from using unconventional measures even in normal circumstances. However, **in normal circumstances they are not really needed** – the central bank can use its interest rate tool instead

- In a staff discussion note published in April 2014 ("Monetary Policy in the New Normal"), the IMF looked at whether unconventional tools should become conventional and **listed several arguments against the option**. These included the risk of unnecessary short-term interest rate volatility arising from attempts to stabilize longer-term rates, or the improper pricing of risk in the bond market if volatility in bond prices is forcibly reduced.

Rules Vs. Discretionary Monetary Policy

- In a rule based monetary policy, the monetary authority commits to a specified path of the instrument variable.
- Under discretion monetary policy, the monetary authority re-optimises the choice of the instrumental variables from time to time.

Rules Vs. Discretion

- Focus upon whether the actions of the Central Bank should be irrevocably fixed in advance by rules, laws, and unchangeable plans or whether the Central Bank should be free to act with discretion ex post with ample margin of manoeuvre.

Advantages of Rules Based monetary Policy

Friedman (2000) lists the following advantages of rule based policies:

- First, unlike a discretionary policy the central bank cannot exploit the inflation-output trade-off which might cause a rise in inflation in the future and subsequently lead to unemployment in case when an aggressive disinflation strategy is taken. Therefore, policymakers should commit to a fixed monetary policy rule.
- Second, the social welfare may increase when the central bank adopts and commit to a rule which can be predicted by private agents. This can be due to the fact that the uncertainty in investment and consumption is reduced.

Advantages of Rules based monetary Policy

- Third, policy rules may decrease the risk premium in the financial markets and thus increase the predictability of returns in the short run.
  - Proponents of rule based policy assume that policymakers have a thorough knowledge of the operations of the economy and the relationship among variables.
- Furthermore, they assume that the relationship between the variables is constant over time.

Financial Crisis and Rules based monetary policy

- Constrained Discretion-Ben Bernanke
- Rules have performed well most of the time containing inflation
- Flexible IT? To make room for crisis. How defined?
- Dual mandates and im-plication for failure of rules.
- Should MP focus on one objective utilising simple rules?

Independence of the Central bank

- How free is the Central Bank from presidential and legislative pressure in pursuing its goals?

Central Bank Independence

- *Instrument Independence:* the ability of the central bank to set monetary policy instruments.
- *Goal Independence:* the ability of the central bank to set the goals of monetary policy.
- The question is whether politicians should be free to choose the direction of monetary policy or whether this decision should be delegated to an independent authority.
- Evidence suggests that the Fed is free along both dimensions. Further, the 14-year terms (non-renewable) limit incentives to curry favor with either the President or Congress.

Case for Independence

- The strongest argument for independence is the view that political pressure will tend to add an inflationary bias to monetary policy. This stems from short-sighted goals of politicians. For example, in the short-run, high money growth does lead to lower interest rates. In the long-run, however, this also leads to higher inflation.

Case for Independence

- The notion of the *political business cycle* stems from the previous argument.
  - Expansionary monetary policy leads to lower unemployment and lower interest rates—a good idea just before elections.
  - Post-election, this policy leads to higher inflation, and therefore, higher interest rates—effects that hopefully disappear (or are forgotten) by the next election.

Case for Independence

- Other arguments include:
  - The Treasury may seek to finance the government through bonds purchased by the CB. This may lead to an inflationary bias.
  - Politicians have repeatedly shown an inability to make hard choices for the good of the economy that may adversely affect their own well-being.
  - Its independence allows the CB to pursue policies that are politically unpopular, yet in the best interest of the public.

Case Against Independence

- Some view CB independence as “undemocratic”—an elite group controlling an important aspect of the economy but accountable in few ways.
- If this argument seems unfounded, then ask why we don’t let the other aspects of the country be controlled by an elite few. Are military issues, for example, any less complex?
- Indeed, we hold the President and Parliament accountable for the state of the economy, yet they have little control over one of the most important tools to direct the economy.

Case Against Independence

- Further, the CB has not always been successful in the past. It made mistakes during the Great Depression and inflationary periods in the 1960s and 1970s and recently?
- Lastly, the CB can succumb to political pressure regardless of any state of independence. This pressure may be worse with few checks and balances in place.

Central Bank Independence and Macroeconomic Performance Throughout the World

- Empirical work suggests that countries with the most independent central banks do the best job controlling inflation.
- Evidence also shows that this is achieved without negative impacts on the real economy.

Financial Stability and Price Stability

- According to (Borio,2011), prior to the global financial crisis, the central banks defined the relationship between financial stability and monetary policy based on four statements:
  - The price stability is a sufficient condition for macroeconomic stability - if the central bank manages to ensure the price stability on the short-term (two years), in the absence of the exogenous shocks, then the economy can operate without any disturbances, considering that the price stability represents the best contribution of monetary policy to macroeconomic stability. This concept was specific to the "Great Moderation" period and it underpinned the adoption of inflation targeting strategy.

Financial Stability and Price Stability

- There is a distinct separation between the financial stability and monetary stability functions. The CB as the lender of the last resort and liquidity provider, is considered the “treasurer” if the financial crises occurred, but
- there is a decoupling of these two functions regarding the crises prevention: monetary policy would ensure the price stability while the regulation and supervision policies would ensure the financial stability.

Financial Stability and Price Stability

- The interest rate, as the monetary policy instrument, is sufficient to influence the economic activity, the only operational instruments being the short-term interest rates and the expectations regarding its future evolution. If each central bank would respond by its policy to the needs and problems of their own country, then the global monetary stance would be appropriate.
- This idea of managing the internal problems is a version of the microprudential approach to the financial stability: if each independent institution (in this case, each country) is “healthy”, then the entire financial system (in this case, the world economy) will be safe and sound.

Financial Stability and Price Stability

- The global financial crisis has changed the landscape in which central banks operate:
  - before 2007 the inflation targeting was considered the only and the best solution provided by a central bank for the macroeconomic stability objective, but after the global financial crisis, the central banks have been subject to a strong pressure concerning its involvement in adjusting the functioning of the financial markets

Monetary Policy and Asset price bubbles

- MP should lean against asset price bubbles
- Greenspan: “monetary policy should not lean but should clean” after the bubble bursts
  - Bubbles are hard to detect
  - MP may be ineffective in stopping bubbles
  - MP is too blunt a tool
  - Picking a bubble may be too costly
  - Cleaning up after bubble not too costly

Lean Vs. Clean debate

- Two types of asset-price bubbles
  - Irrational exuberance
  - Credit-driven bubbles
- Suggests debate on lean Vs. clean is miscast
- Strong arguments for leaning against credit bubbles

Lean Vs. Clean

- Macroprudential regulation and supervision should be the first line of defense
  - Macropru focusses on system rather than individual institutions
  - Countercyclical capital requirements
  - Countercyclical measures to reign ij credit booms: impose low loan-to-value ratios, restrict foreign borrowing, etc.