Monetary Policy and Asset Price Volatility
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1 Introduction

- Fom early 1980s, the inflation rates in most developed and emerging economies have been largely stable, while volatilities of asset prices (equities prices and property prices) have been exhibiting more and more dramatic fluctuations.

- Borio, Kennedy, and Prowse (1994), among others, document the emergence of major boom-bust cycles in the prices of equity and real estate in a number of industrialized countries during the 1980s US, Japan, the United

Kingdom, the Netherlands, Sweden, and Finland). The examples for the emerging economies are, Mexico (1984, 1994), Asian countries (1997), Russia (1998), etc.

- Associated with the bust part of the asset price cycle in many of these cases were significant contractions in real economic activity.

- How should central bankers respond to asset price volatility?

- Monetary policy is not by itself a sufficient tool to contain the potentially damaging effects of booms and busts in asset prices. However, asset price crashes have done sustained damage to the economy only in cases when monetary policy remained unresponsive or actively reinforced deflationary pressures.

1.1 Main Findings

- In terms of short-term monetary policy management, central banks should view price stability and financial stability as highly complementary and mutually consistent objectives, to be pursued within a unified policy framework.

- The best policy framework for attaining both objectives is a regime of **flexible inflation targeting**, either of the implicit form now practiced in the United States or of the more explicit and transparent type that has been adopted in many other countries.

- The inflation-targeting approach dictates that central banks should adjust monetary policy actively and pre-emptively to offset incipient inflationary

or deflationary pressures. In the contect of this paper, it also implies that policy should not respond to changes in asset prices.

- By focusing on the inflationary or deflationary pressures generated by asset price movements,
  - A central bank effectively responds to the potentially damaging effects of asset booms and busts without getting into the business of deciding whether a given change in asset values results from fundamental factors, nonfundamental factors, or both.
  - It also avoids the risk that a "bubble", once pricked, can easily degenerate into a panic.
  - Finally, because inflation targeting both helps to provide stable macroeconomic conditions and also implies that interest rates will tend to rise

during (inflationary) asset price booms and fall during (deflationary) asset price busts, this approach may reduce the potential for financial panics to arise in the first place.

2 Overview of Asset Prices, The Economy, and Monetary Policy

- Should fluctuations in asset prices be of concern to policymakers?
  - Non-fundamental factors
  - Changes in asset prices unrelated to fundamental factors have potentially significant impacts on the economy.

- If these two conditions are satisfied, then asset price volatility becomes, to some degree, an independent source of economic instability, of which policymakers should take account.

2.1 Non-fundamental factors

- Potential sources of nonfundamental fluctuations in asset prices,
  - poor regulatory practice.
  - imperfect rationality on the part of investors (market psychology).

2.1.1 Poor Regulatory Practice

- Financial reforms that dramatically increased access to credit by firms and households contributed to asset price booms in the 1980s in Scandinavia, Japan, the Netherlands, the United Kingdom, and elsewhere.

- Financial liberalizations in developing countries that have opened the gates for capital inflows from abroad have also been associated in some cases with sharply rising asset values, along with booms in consumption and lending.

- But isn't financial liberalization a good thing? As Allen and Gale and others have emphasized, problems arise when financial liberalizations are not well coordinated with the regulatory safety net (for example, deposit insurance and lender-of-last-resort commitments).

- If liberalization gives additional powers to private lenders and borrowers while retaining government guarantees of liabilities, excessive risk-taking and speculation will follow, leading to asset price booms. Ultimately, however, unsound financial conditions are exposed and lending and asset prices collapse.

2.1.2 Fundamental vs. Nonfundamentals

- There is a large literature on bubbles, fads, herd behavior, excessive optimism ("irrational exuberance"), and the like. This literature has gained popularity because of the great difficulty of explaining the observed level of financial volatility by models based solely on economic fundamentals.

- But even the advocates of bubbles would probably be forced to admit that it is difficult or impossible to identify any particular episode conclusively as a bubble, even after the fact.

2.2 The Impact on the Economy

- The historical experience – from the Great Depression of the 1930s to the most recent epidemic of crises – is supportive of the view that large asset price fluctuations can have important effects on the economy.

- What are the mechanisms?

2.2.1 Wealth Effect

- Wealth effect on consumption spending

- Empirical studies (Ludvigson and Steindel, Parker) have not found a strong or reliable connection between stock market wealth and consumption.

2.2.2 Balance Sheet Channel

- Cash flows and the condition of balance sheets are important determinants of agents' ability to borrow and lend when credit markets are imperfect.

- Research suggests that the effects of asset price changes on the economy are transmitted to a very significant extent through their effects on the balance sheets of households, firms, and financial intermediaries (Bernanke, Gertler, Gilchrist, 1999; Bernanke and Gertler, 1995).

- Firms or households may use assets they hold as collateral when borrowing, in order to ameliorate information and incentive problems. A decline in asset values (for example, a fall in home equity values) reduces available collateral, leads to an increase in leverage on the part of borrowers, and impedes potential borrowers' access to credit.

- Financial intermediaries, which must maintain an adequate ratio of capital to assets (Basel capital requirement), can be deterred from lending, or induced to shift the composition of loans away from bank-dependent sectors such as small business, by declines in the values of the assets they hold.

- Deteriorating balance sheets and reduced credit flows operate primarily on spending and aggregate demand in the short run, although in the longer run they may also affect aggregate supply by inhibiting capital formation and reducing working capital. There also are likely to be significant feedback and magnification effects.

  – First, declining sales and employment imply continuing weakening of cash flows and, hence, further declines in spending. Bernanke, Gertler, and Gilchrist (1996) refer to this magnification effect as the ■"Financial accelerator."

  - Second, there may also be feedback to asset prices, as declining spending and income, together with forced asset sales, lead to further decreases in asset prices and the value of collateral borrowers can pledge. This "Debt deflation" mechanism was first described by Irving Fisher (1933).

- This perspective has proved quite useful for interpreting a number of historical episodes, including the Great Depression (Bernanke; Bernanke and James), the deep Scandinavian recession of the 1980s, the "redit crunch" episode of 1990-91 in the United States (Bernanke and Lown), the protracted weakness of the Japanese economy in the 1990s, and the exchange-rate devaluations have appeared to be contractionary in a number of the developing countries that experienced financial crises, because devaluations raised the domestic-currency value of these existing unhedged, foreign-currency-denominated debts by banks and corporations (Mishkin; Aghion, Bacchetta, and Banerjee; Krugman).

3 Flexible Inflation Targeting

- A regime of inflation targeting has three characteristics.
  - Monetary policy is committed to achieving a specific level of inflation in the long run, and long-run price stability is designated the primary long-run goal of policy.
  - Within the constraints imposed by the long-run inflation objective, the central bank has some flexibility in the short run to pursue other objectives, including output stabilization.
  - Inflation targeting is generally characterized by substantial openness and transparency on the part of monetary policymakers.

- Our characterization of Federal Reserve policy in recent years is that it meets the first two parts of the definition of inflation targeting, but not the third; that is, the Fed practices "Implicit" rather than "Explicit" inflation targeting. Bernanke and others (1999) argue that the Fed ought to take the next step and adopt explicit inflation targeting.