

# Monetary and Financial Stability

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## Introduction

As recently as twenty-five years ago, monetary stability in the United States was based on the Federal Reserve System's control of the quantity of money. Financial stability was ensured by the comprehensive regulations of the Glass-Steagall act, which kept different types of financial institutions separate and dictated the activities they could and could not engage in. Today, these regulations are gone and a great wave of innovations has entirely changed the financial landscape. And we no longer know how one might define the 'quantity of money' for control purposes.

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With the demise of Monetarism, more and more central banks around the world have come to adopt a policy strategy known as 'inflation targeting.' This is the case, for example, with the European Central Bank, the Bank of England, and the Swedish Riksbank. The Central Bank of New Zealand was a pioneer in committing itself publicly to this policy. Some other important central banks, such as the Federal Reserve System of the United States and the Bank of Japan, have not officially declared inflation targeting as their strategy, but they have behaved as if it were, and the markets have believed that to be the case.

Many influential advocates of this policy have argued that keeping the inflation rate very low and maintaining it within a very narrow band of variation should be

a central bank's *exclusive* goal. If it is known that this is the Bank's exclusive objective, its policies will be *transparent* and, the proponents believe, as long as the markets understand clearly what the monetary policy is, they will take care of other matters, such as unemployment, as well as can be. If, on the other hand, the central bank from time to time trades off unemployment versus inflation, or one of the two versus the exchange rate, the private sector will not be certain what is going on and this will lead to various mistakes and inefficiencies.

I have a number of reservations concerning this fashionable policy doctrine. In particular, I maintain that stabilising the consumer price index (or its rate of growth) does not guarantee stability of the financial system. Moreover, under certain conditions, concentrating on year-to-year monetary stability, in the sense of keeping to a CPI inflation target, can lead you to follow policies that are inimical to financial stability over the longer run.

## Japan

An example for the proposition that monetary stability does not guarantee financial stability is Japan up to the end of the 1980s. This was before the days when inflation targeting became a doctrine generally embraced by central banks. So one is not justified in attributing an explicit such policy to the Central Bank of Japan. The point, however, is that had it operated with an explicit inflation target in that decade, it would presumably not have been led to behave differently from how it in fact did behave. (Nor would more explicit constitutional guarantees of 'central bank independence' have made any difference).

Yet, two enormous asset price bubbles were steadily inflating during that decade – they burst, and the Bank of Japan has struggled mightily for a decade and a half to repair the financial damage.

The lesson to be drawn from this episode is simply that *inflation targeting cannot be the end-all of monetary policy*. Please note that this was a somewhat controversial statement only a couple of months ago. In

*Editors' note:* This is an edited version of the 'Lectio Magistralis' given by Axel Leijonhufvud at the University of Trento, 1 October 2007.

<sup>1</sup> I have learned much from many discussions with Christina Leijonhufvud. She is not implicated in my errors and omissions below.

recent days and weeks, however, the Federal Reserve System, the Bank of England and the European Central Bank have been besieged by armies of bankers and commentators pleading and urging them *not* to take inflation stabilisation that seriously. I will have to come back to that point later.

### Financial regulation and stability

Another aspect of the story does not have such an obvious moral. At the time of the Japanese crash, as I recall, commentators in the United States pointed out that its severity was due in large measure to the fact that Japanese banks had lent heavily against real estate collateral and also held equity interests in the manufacturing sector, activities that at that time were prohibited to American banks by the Glass-Steagal act which Congress had passed in the 1930s. That legislation was based on an interpretation of the decade antecedent to the Great Depression analogous to how we today view the Japanese 1980s<sup>2</sup>. Glass-Steagal sought to make the financial system into an unsinkable ship by segmenting it into watertight compartments so as to preclude what actually happened in Japan 60 years later<sup>3</sup>.

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Shortly after the Japanese crash, however, the United States *dismantled* these particular regulatory structures. Lobbying by the financial industry was of course instrumental in the process. But it was also the case that economists had learned Tobin-Markowitz portfolio theory since the 1930s and were persuaded that Glass-Steagal prevented banks from diversifying risk. The watertight-compartments model of ensuring against a crash was seen as wrong-headed. So deregulation met with virtually no opposition from economists.

Before proceeding, I should note that it is not obvious that the faith of financial economists in portfolio diversification is altogether well-founded. It rests on the assumption that the risks of financial assets can be represented by a Gaussian probability distribution. This assumption is known to be false. In particular, events very far away from the mean occur more often than 'they should.' In a recent book which many economists would like to ignore – but one that is hard to ignore –

2 It is worth noting that it has remained the interpretation of the Austrian school.

3 Under Glass-Steagal, commercial banks were not to invest in mortgages or equities and were also prohibited from interstate banking. Home mortgages, for example, became the province of Savings and Loan Associations, an industry which functioned perfectly well until inflationary macropolicies in the 1970s made the extreme maturity mismatch between the two sides of its balance sheet fatal.

N.N. Taleb calls such events 'Black Swans'. A good Black Swan brings unexpected good fortune. A bad one is a disaster waiting to happen, and it will have more disastrous consequences than it should because, having seen lots of 'normal' white swans, we tend to ignore them before the fact and rationalise them away after the fact – so as to be equally unprepared next time.

### Financial evolution

In the wake of deregulation, the financial system has evolved so very rapidly in the last twenty years that 1990 now seems a *very long time ago* – even though the consequences for Japan still linger. In what used to be called the 'leading industrialised countries' (some of which are leading 'deindustrialisers' today), the changes have been dramatic enough that it is not obvious what lessons from past experience still apply. A short list would have to include:

#### *Changes in payments practices and in the monitoring of credit*

These are the changes ordinary people are most aware of. They include ATM-machines, debit cards and payments made electronically over the Web. In the United States, in particular, a number of large national firms keep constant track of how well firms and individuals meet their payment obligations and furnish this information to financial institutions or other firms offering credit.

#### *Deregulation of banking and the rise of financial conglomerates*

The abandonment of the old model of regulation has caused boundaries between what used to be different types of financial institutions to be almost completely erased, so that institutions which were previously in separate 'watertight compartments' are now in direct competition, also across borders and, for the largest of them, around the world.

#### *Securitisation of loans*

Banks used to make loans to borrowers whose credit-worthiness they had carefully evaluated and then keep the loans on their books until they were paid off. Today, big banks in particular are almost entirely credit intermediaries. They make loans, bundle them together, and sell securities that are claims not on individual loans but on the bundle of loans. There are a variety of ways on which securitisation can be 'structured' to appeal to different investors, for example, by dividing the issue into different tranches, some of which will assume higher risk of default but earn correspondingly higher interest. This is an example of what is called 'structured instruments.'

#### *The growth of the various derivatives markets*

The structured instruments just mentioned are examples of 'derivatives'. They are not loans but 'derive' from the underlying bundle of loans. The types of derivatives offered have proliferated immensely in recent years. The volume traded has grown even more impressively. The type which is most relevant to today's topic are so-

called credit derivatives, also called risk transfer instruments. These allow the holder of a bond to buy default insurance for a periodic payment. The big banks operate on both sides of this market, both buying and selling, and hold derivative contracts on debts with a face value of many trillions of dollars.

#### *Hedge funds, conduits, and SIVs*

The innovations just mentioned do not exhaust the list. In recent weeks, hedge funds, conduits and special investment vehicles have been prominent in the news. I will return with some comments on them later.

#### *Financial globalisation*

The big banks operate in all the major financial centres in the world, and many of the new instruments are traded all over the world. As we have recently learned, for example, German banks held significant amounts of American subprime mortgages. To make that statement concrete – it means that a German bank in Leipzig, for example, holds an (indirect) claim on some poor fellow in California – half a world away – who had borrowed up to the hilt at a very low ‘starter rate’ and who could not possibly meet his mortgage payments when the rate was raised to market level, but lived on the vain hope that the value of the house would continue to appreciate indefinitely.

#### **A safer world?**

What are the implications of this gigantic wave of financial innovations for the stability of our economies? The conventional view has been that they have ‘made the (financial) world a safer place’, but to this view there have been at least a few dissenters throughout and recent events have made many more people far less confident of this optimistic view.

Historically, the major stages in the development of financial markets and institutions have created novel sources of instability and have ushered in prolonged periods of learning how to regulate and stabilise the system. It took us a long time, for instance, to learn how to live (relatively) safely with fractional reserve banking of the old-fashioned sort.

Can we expect this stage in financial evolution to be different? The errors in these trial-and-error learning processes have sometimes been huge. Recall that the first move by the American banks into unfamiliar ‘global’ territory led them into the Latin American crash of the early 1980s. Their losses were of a magnitude to make them technically bankrupt but the ‘forbearance’ of regulators and government help in the form of the Brady bonds allowed them to work their way back into solvency.<sup>4</sup> Similarly, in 1989, six of the ten largest banks in the world were Japanese (if I recall correctly). They too were technically bankrupted by the crash and it took more than a decade for them to earn their way into the black, even with access to funds at a zero interest rate from the central bank. And even today none of them is back among the globally dominant institutions.

Some of the ‘errors’ made in novel, unfamiliar market

4 Cf. Christina Leijonhufvud (forthcoming).

contexts have also had truly enormous welfare consequences. For the emerging market economies which deregulated their financial systems and opened themselves to the free flow of capital in the 1990s, the old story was repeated. The East Asian crises of 1997, the Russian and Brazilian crises of 1998 and the Argentinean one of 2003 are all stories of ‘errors’ with huge costs for many millions of people. Several of these countries have since accumulated huge foreign exchange reserves hoping to avoid a recurrence of crisis – and to escape the tender-loving care of the IMF. Note that investing several percentage points of one year’s GNP is a costly thing to do when per capita real income of the population is low.

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The question, then, is whether the recent rapid evolution of financial institutions, instruments and markets has somehow made the leading capitalist economies exempt from serious calamities.<sup>5</sup>

#### **So far from Ricardo, so close to Wicksell**

Before turning to this question, let us consider how the problem of monetary stability has also changed in this new environment.

The book that all central bank economists have been studying of late is Michael Woodford’s *Interest and Prices*.<sup>6</sup> It borrows its title from a famous work by Knut Wicksell, *Geldzins und Güterpreise* which is now more than 100 years old.<sup>7</sup> The older work will however serve my purposes quite adequately. The financial evolution of recent years has invested it with renewed relevance.

Wicksell’s book contained two models, occupying two ends of an evolutionary spectrum of institutional alternatives. One was an old-fashioned Ricardian Quantity Theory model to which no one paid any attention. The money supply consisted of coins and notes convertible into gold which were issued by private sector banks. Denoting the public’s propensity to hold minted gold by  $g$  and the reserve ratio of the banks by  $r$ , the base-money multiplier would give us a money supply,

$$M = [(1 + g)/(g + r)]G$$

The price level is then determined by the quantity equation and Wicksell was satisfied that velocity had an

5 A second question, which cannot be considered here, then becomes whether the traditional powers and instruments of Central Banks are adequate to cope with potential financial instability, given these far-reaching changes that the system has undergone

6 Michael Woodford, *Interest and Prices*, Princeton: Princeton University Press 2004 [here](#).

7 Knut Wicksell, *Geldzins und Güterpreise*, Jena: Fisher Verlag 1898. Woodford’s work is Wicksell ‘Taylored’ to contemporary tastes.













