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The Links between Fiscal and Monetary Policies on the One Hand, and Financial Stability on the Other

1 Introduction

When non-performing loans mount and asset values fall at an individual bank, (and within the banking system more widely), bringing on financial fragility, we may classify the contributing reasons under four main headings. Thus the decision-makers at the bank(s) were either:

(1) *Fools*, i.e. they mis-estimated the risks;
(2) *Unlucky*, i.e. they estimated the risks correctly, but a bad draw from nature occurred;
(3) *Knaves*, i.e. they knew that the purchase of the asset would provide negative present value, but other considerations made them do so nevertheless;
(4) *Fall-guys*, i.e. they knew that the asset purchase was unwise, and would not have done so voluntarily, but they were forced to do so by some external force majeure.

Or, more likely, there was some combination of several of these factors, since it is extremely rare for a severe crisis to be generated by one factor alone. For example, in the Barings failure in 1995, Leeson was certainly a knave, and arguably both unlucky and foolish, while his superiors were undoubtedly foolish in failing to estab-

lish appropriate internal controls. I do not believe that it is possible, or sensible, to try to make an *empirical weighting* of the elements in the above taxonomy in causing financial crises. Nevertheless we will consider each of these factors in turn, in reverse order starting with banks as fall-guys.

2 Banks as Fall-Guys: The Role of Governments and Fiscal Deficits

Within a bank, a junior loan officer, who correctly assesses a potential loan as having a negative net present value (NPV), may of course be over-ruled by a more senior bank executive, who is a fool or a knave. Turning, however, to cases where the bank as a whole is pressurised into decisions that it knows to be sub-optimal by external forces, there are some cases when powerful private sector clients, with overall market power, can do so. Large companies, like Enron, can persuade banks, (e.g. by threatening to withdraw other business), to agree to deals that they would not have done for a smaller client.

But the main source of external force majeure on a bank has predominantly been its own government. This was seen in its most extreme form in communist countries where the direction of credit was (almost) entirely state controlled. But even in capitalist countries, the state has often indicated that a certain specified proportion of a bank's assets be invested in its (the state's) own liabilities (e.g. treasury bonds and bills), and that other required proportions of loans be made to certain specified sectors of the economy (e.g. state-owned enterprises, the agricultural community, slum-housing, etc.). As a reasonable generality, if a government needs to force a bank to lend to a particular sector, such loans are likely to be less profitable, have a lower expected NPV, than those that the bank would do anyway. In particular, the non-performing loans (NPLs) with which the big four 'commercial' banks in China are saddled largely arose from pressure from government (at all levels, frequently provincial or municipal governments) that the (so-called 'commercial') banks not only extend, but continue to roll-over and 'evergreen', loans to failing state-owned enterprises. In effect in China, in India, and elsewhere, commercial banks are required to undertake a quasi-fiscal role, providing subsidised funding for purposes decided by government, which purposes can run the whole gamut from corruption to the most noble social aims.

Making such state-directed loans in most cases weakens the banks (lower profitability). In countries where state-direction of loans has been a major factor, there has, however, been often a quid-pro-quo. The state protects the existing banks from competition in financial intermediation, whether from international or domestic competitors, and allows, and even encourages, a domestic bank oligopoly, with interest spreads set in a cartelised format at levels that generate sufficient profits to keep the banks in reasonably good shape (normally) despite some, often quite large-scale, NPLs on required loans.

Besides requiring banks to direct credit to certain sectors, (in public sector terminology, they are often described as 'less-favoured sectors' which should be interpreted as requiring banks to make them 'more favoured'), banks are often forced to hold certain minimum levels of government debt. Since these assets are, in the context that we shall

describe further, not subject to credit (default) risk, and are liquid, in the sense of having large, broad markets, such regulations can be described as prudential, ensuring that banks have sufficient safe, liquid assets that can be sold, or used as collateral in borrowing, e.g. from the central bank, in order to meet large negative clearing balances, e.g. arising from a run by depositors.

Up to a point such requirements can be regarded as 'prudential', and supportive of liquidity. 'Sufficient' holding of government debt can strengthen a bank. Yet some countries, for example Argentina in recent years, have required their banks, and other financial intermediaries, to take on a growing proportion of their own debt. Most debtors have two alternatives, to raise sufficient funds, (by running a surplus or by borrowing elsewhere), to repay the due amounts to be repaid, or to default. Sovereigns, who can issue legal tender fiat money, have a third alternative, to use the printing press. That means that such sovereigns never *need* to default; they can always meet the coupon and principal payments by creating money. Even then it is not clear that a sovereign, forced to choose between fiscal tightening, inflationary monetisation, and default, will *never* choose default. Russia in 1998 is a good counter-example. After all, (unexpected) inflation is a form of default on the real value of the outstanding debt. Depending in part on the (social and political) characteristics of the holders of the debt and of the national currency respectively, a government could sometimes rationally choose to default on its own-currency debt, rather than go further down the road to hyper-inflation.

In any case an 'excessive' deficit which is met by monetisation, rather than by default, is hardly a life-line for the banks. Monetisation will raise expected inflation, and hence nominal interest rates. The market value of existing government (and similar denominated private sector debt) will fall towards zero. While banks are in a more balanced position than most other creditors, their holding of longer-term fixed rate assets and shorter-term variable rate liabilities leaves them at risk and endangered by government-generated inflation. So,

the conclusion is that 'excessive', (i.e. tending towards unsustainability and/or inflationary monetisation), deficits cause financial instability.

Walter Wriston of Citibank is notorious for having claimed that "sovereigns never go bankrupt." As we have seen, this is not necessarily so, even when the sovereign offers debt denominated in its own currency. When, however, a sovereign, or subsidiary layer of government, issues debt in the currency of another party, then the choice on the debtor reverts to two, i.e. raise the requisite funds or default. That raises the potentiality for default considerably.

Most emerging market economies (EMEs) find it hard to borrow much in their own domestic currencies. Lenders fear the temptation for such government borrowers of subsequently inflating away the real value ('original sin'), and the markets for such debt are thin, with large bid-ask spreads and sizeable other transaction

costs. The roll-call of EMEs who have defaulted on their foreign currency debts is long, and needs no repeating.

But just as EMEs cannot issue debt denominated in their own currency, nor can subsidiary governments, at regional, provincial, state, local, municipal levels. When federal control of subsidiary-level deficit financing is weak, as has been the case in Argentina and Brazil, for example, then this tends to work back to weaken fiscal control at the federal centre. There are several reasons for this:

(1) *Financial:* Many local banks and other financial intermediaries hold so much local government debt that they would also be driven into default by the failure of their local government. So the initial public sector default could/would generate a wider financial sector debt/default spiral. So the subsidiary government cannot be allowed to default and must be bailed out.

(2) *Political:* The collapse of a major subsidiary government with large outstanding debts would adversely affect so many other stakeholders (beyond the banks and other financial institutions) that it would adversely impinge on the standing of the political party in office at the federal centre.

(3) *Reputational and Contagion:* The default of a major local governmental body would cause an immediate review, and re-rating of all other possibly similar-based bodies, and indeed very possibly of the federal government itself.

For all these reasons there has usually been an (implicit) contract between the federal and the provincial (subsidiary) layers of government. On its side the subsidiary (state) government agrees to some fairly stringent (often federally imposed) constraints on its ability to run deficits. On the other hand the federal government implicitly (or even explicitly) guarantees the debt of the lower level governments, *and*, partly through automatic stabilisers and partly directly, offsets adverse asymmetric shocks affecting differing regions by a system of inter-regional fiscal transfers.

3 The Stability and Growth Pact and Excessive Fiscal Deficits

There is no basis for such a bargain amongst the major countries and the federal institutions in the euro area. The federal institutions in the EU have neither the ability, nor the wish, to guarantee the deficits of the subsidiary state governments. The European Central Bank (ECB) is admonished *not* to support failing state governments, and there is no fiscal competence at the federal level either to make inter-regional transfers in response to asymmetric shocks[1] or to support the ECB in meeting the burden of bailing out a failing state government. So the federal government in the EU neither can, nor wants to, carry out its part in the kind of implicit bargain observed in other federal systems.

Since there is no quid-pro-quo from the federal side, it is not surprising that the (large) nation state governments in the euro area chafe at the constraints imposed on their freedom of fiscal action by the Stability and Growth Pact (SGP), despite the

[1] *I had tried to devise just such an instrument in Goodhart and Smith (1993), one of the background studies to the EC paper "Stable Money – Sound Finances" (European Commission, 1993). That report, and its recommendations, were first pigeonholed and then rejected by the Member States of the EU.*

fact that the SGP gives them more fiscal flexibility than available to subsidiary state governments in many other federal countries, e.g. in the USA. Absent observance of the SGP, excessive deficits in the EU could be a major potential source of financial fragility.

An additional problem is that the financial regulators, being mostly public sector bodies themselves, are prone to be 'captured' by, to be unduly concerned with, their masters, and their masters' concerns, in ministries of finance. Thus regulators are inclined to give low risk weightings to nation state debt irrespective of whether such debt is in foreign currency or domestic currency form. The independent ratings agencies are better in this respect, but may still be somewhat swayed by political pressure. In particular, there is no appropriate risk weighting for concentrations of (bank) holdings of the debt of a single obligor. Thus Belgian banks hold vast quantities of Belgian government debt; Italian financial intermediaries massive holdings of Italian government debt, etc. In the absence of a strict, and strictly observed, SGP, this is a source of danger.

If the SGP is found to unenforceable, or so relaxed as to be ineffective, this danger would need to be recognized. What should be done is then to relate the risk weighting to the proportion of the portfolio represented by any single obligor's debt, where that debt was denominated in foreign currency form, (remembering that the euro is effectively a foreign currency for the member nation states, in the sense that no member nation state has any control over the printing press). Thus a bank might hold up to, say, 2½% of its assets in the debt of any one such obligor, at the risk weighting applied to that obligor. Beyond that, and on an increasing scale, the risk weighting applied to concentrations of such risk would rise. The idea would be effectively to limit the holdings of, say, Greek government debt in Greek banks and other Greek financial intermediaries.

The purpose would be to try to ensure that, if a euro nation state defaulted, it would not drag down its own financial system into a messy collapse with it. By the same token a

euro nation state government which was increasing its debt would have to persuade the wider market, beyond its own domain, to buy that debt. There would no doubt be transitional problems. Nevertheless imagining the counterfactual of thinking through what would happen if the financial intermediaries in the highly indebted euro area countries were induced to lighten their holdings of such debt significantly indicates what a powerful mechanism of market control this could be.

Ignoring the real transitional problems, could one impose appropriate prudential requirements on concentrations of foreign currency government debt, and then leave the control of euro area fiscal deficits to market mechanisms alone, junking the SGP entirely into the dustbin, alongside other failed institutional devices? The main problem is that the market's penalty for 'excessive' deficit/debt is to push up required yields, and this leads

to a knife-edge (saddle-point) condition. If fiscal conditions appear good, default risk is perceived as low, which helps to keep interest rates low, which in turn helps to keep down the deficit, which keeps fiscal conditions looking good. Then assume some adverse event occurs which raises perceived default risks. Then required yields rise, which raises the deficit further, which makes fiscal conditions look worse. In one of the key supporting papers of the Delors Committee, Lamfalussy (1989)

argued the need for an accompanying fiscal constraint to the single currency on the grounds that markets do not move continuously. They appear to move late, (in response to a worsening fiscal position), but when they do, to do so abruptly and, perhaps, excessively.

Moreover, even if the *financial* reason (1 above) for bailing out a financially-failed nation state was removed, or at least much mitigated by this proposal, that would still leave reasons (2) *political* and (3) *reputational and contagion*. Nevertheless, the apparent problem is not one of deficits, or debt levels, per se, but rather one of fiscal (un)sustainability and potential default. What is fiscally sustainable, or not, is a hideously difficult question because it depends on future configurations of growth, real interest rates, demography, the balance of state/private commitment to pensions, education, health, etc., which are inherently unknowable. One potential institutional suggestion, which might be valuable, (whatever the balance between market mechanisms of control over euro area nation state government deficits and SGP-type mechanisms), would be to establish at the central EU level an independent, academic body of economists, to assess the long-term sustainability of each nation state's fiscal sustainability, and to report. To ensure such independence, and academic standing, appointment would be made by the leading economic society in each country, *not* by ministers.

That covers the relationship between fiscal policies and financial stability, with particular reference to the euro area and the SGP.

4 Bankers as Knaves: How to Deal with Fraud and Looting

A large proportion of recent banking problems have involved fraudulent activity to a greater, or lesser, extent. Besides Crédit Lyonnais in France, the best known banking crises in the UK in recent years, Johnson Matthey Banking (1984), BCCI (1991), Barings (1995), all involved activities that were clearly fraudulent in two cases, and verged on that in the third (Johnson Matthey Banking).

Moreover, fraud may not just arise as an unwanted consequence of the combination of the immorality of a subordinate bank officer and lax internal controls; it may suffuse the whole bank as an institution. Not only BCCI, but many of the private commercial banks established in Russia in recent years, were established in order to benefit the owners, and their associates, by siphoning depositor's money to themselves. Besides rogue bank officers, it is possible to have rogue banks.

How can the regulators/supervisors best prevent and control such knavery? Any suggestion that it could be prevented by requiring more 'operational' capital is ludicrous. Clearly the scale of capital held by the bank would have no effect on the incentives for individual bank officers to act fraudulently. If the bank as a whole intends to be fraudulent, capital will be obtained by a disguised chain of borrowing, often ultimately from the bank itself. In EMEs where accounting skills are underdeveloped, corruption is commonplace and the rule of law is weak, capital can be artificially 'manufactured', and the relationship between reported capital ratios and financial strength is weak.

Admittedly the larger the capital that a bank has, the greater the loss from fraud that the bank can absorb without failure. Even so, the need to *require* operational capital on this account is not fully made out. The loss primarily falls on the shareholders of the bank affected. One source of externality, that of a high risk correlation with other banks, is low for fraud undertaken by individual bank officers; and for the reason already indicated (that capital can, and will, be artificially constructed by fraudulent banks) is not best met by extra capital requirements in the case of rogue banks. The idea that the additional requirements for operational capital, as contained in Basel II, would play any significant beneficial role in containing knavery is misplaced. It is not clear just what is the market failure, or externality, that leads to an official requirement for operational capital, certainly not as a purported remedy against fraud.

The standard economic calculus relates the benefit to the fraudster against the probability of detection (another banking PD?) and the penalty given detection (PGD). PGD is set by the legislature and society. So what bank regulations, and banks in the case of rogue bank officers need to do, is to raise the likelihood of detection.

As I wrote in an earlier note (Goodhart, 2001) on operational risk: *"Perhaps a key issue is to devise a better and more encompassing set of incentives to detect, control and limit fraud. This subject has been addressed in the article on 'Securities Fraud' by Instefjord, Jackson and Perraudin (1998).*

Their conclusions, which I would endorse, are as follows:

1. *Regulators should encourage firms to improve their control environments. This facilitates the efforts of managers to monitor their subordinates and prevents firms from declining into equilibria in which irregularities are pervasive.*
2. *Regulators should adopt ex post penalty structures which allow them to penalise managers at different levels in the hierarchy. Few regulators do so at present.*
3. *Simply imposing heavy penalties on dealers will not necessarily reduce fraud. In our simple models, strong substitution effects are present in that fines imposed on dealers lead to offsetting reductions in monitoring, leaving the prevalence of fraud unaffected. Incentives for those who monitor are very important.*
4. *Firms should reward managers who discover actual or potential control lapses and avoid (to the extent that this is possible) too close an alignment between the pay of managers and profits reported by the dealers they manage."*

This, however, leaves to one side the question of how to deal with a whole bank whose raison d'être is, or may have become, or may be believed

to be, fraudulent. Such banks (as with other fraudulent institutions) frequently use two tactics. First, they persuade eminent, and often elderly, politicians or publicly renowned people to take a distant, but well remunerated, role in their operations (non-executive director, board member, etc.). These then lobby their erstwhile political colleagues, and the regulators, for licences, etc. Second, they use highly-paid lawyers to threaten whistle-blowers and public accusers

with libel actions, and to hinder and to delay attempts by the regulators to get at the truth.

A partial remedy here is to make the regulators/supervisors independent of political control, to provide them with sufficient resources to carry out their function (for example to carry out on-site inspection without prior notification), and to protect them against civil suit so long as they carry on their job reasonably sensibly. Nowadays there may be no window of opportunity left between a supervisor being sued by the owners for closing a bank too soon, and being sued by the depositors for closing a bank too late.

Fraudulent banks attempt to prevent any independent outsider (accountant/auditor, supervisor/regulator) observing the affairs of the bank as a whole by making them complex, with myriads of subsidiaries, linked and holding companies, not to mention special purpose entities (SPEs). In this respect the Basel Committee on Banking Supervision has done an excellent job, requiring that there should be an audit of the consolidated accounts of every bank, and a 'lead supervisor' appointed to ensure that that is done, and to review the results, and, if necessary, to take appropriate action.

5 Unlucky Banks

Bad luck plays a role in almost all failures, even those where fraud is involved. Is there much to say about it?

A useful distinction is that between idiosyncratic and systemic risks. When a risk is of the former kind, it is not correlated with those affecting others of the same category elsewhere, e.g. a computer glitch, a fire at head office, the sudden incapacity of a CEO, the failure of a large client, etc. Against such idiosyncratic risk some form of insurance is usually possible, though that insurance, e.g. spare capacity, pre-arranged delegation of responsibility, diversification of lending, etc., often has to be done internally rather than through a formal insurance contract. One of the roles of a supervisor is to check whether contingency planning has been undertaken to deal with such idiosyncratic risks.

A more difficult problem arises with systemic risks, those that occur not just to the one bank but to all of a set of banks. For example, assume that something disrupts power in the City of London, affecting everyone there. Should all key institutions have back up individual sources of power (generators) and for how long should they be able to work? After 9/11 questions about the availability and adequacy of back-up facilities at a distance have become more pressing. How extensive should such facilities be? And who should pay for the cost of installing them?

More specific to banking, the probability of client failures, ratings declines, and NPLs depends on systemic factor(s)[2], notably the aggregate macro-economy. But just how far the aggregate economy might fall into depression (slump) will not depend on an individual bank, but on those who decide on overall policy (demand management and structural reform). Is it sensible to require banks to hold so much capital that they could survive a re-run of the inter-war debacle? If so, they could take on very little risk. Potentially risky business, and borrowers would be forced to search for external non-bank sources of funds, or to rely on such internally generated funds as may accrue. Systemic risk exists, but beyond some point it is, I would contend, the responsibility of those in charge of the system as a whole, i.e. the government, to respond to really bad draws, not for the individual banks themselves.

A somewhat similar point arises in the design of stress tests. All too frequently, the parameters of stress tests, an x% decline in asset prices, a y% rise in interest, a z% shift in exchange rates for example, are held constant over time. But when an asset market, say the equity or housing market, has been appreciating rapidly recently, then asking what would happen if it fell back by x% is no more than to enquire what would occur if the market partly retraced its steps, (and the answer is usually that nothing much would then happen to banking profitability and solvency). Whereas if that asset market had already plunged, a stress test of an exactly similar quantitative amount may be effectively enquiring about eventualities in the worst-ever conditions for that market. Do the authorities want to force banks, when already in bad times, to protect themselves against worst-ever conditions? Conventional stress tests only sometimes take notice of the current conjuncture. This is understandable, since there is little stationarity, no clear-cut fundamental equilibrium in most asset markets, but, even so, those setting stress tests do need to take explicit consideration of exactly against what potential market conditions they want the banks to self-insure.

The authorities cannot ask the banks to insure against complete systemic collapse. They need to ask themselves, against what exactly do they, (and more generally we), want banks to self-insure.

6 Foolish Banks

Banks which voluntarily take on what subsequently appear as excessive risks may be categorised under three, or possibly, more headings, as follows:

(1) risk-choosing;
(2) ignorant;
(3) over-optimistic.

6.1 Risk-Choosing Banks

Risk-choosing banks (bankers) are those that can correctly assess that their selection of portfolios lays them open to a significant chance of failure, but nevertheless go ahead and do so. This is often largely because of a (poorly structured) incentive system, in which the downside is limited (e.g.

[2] *Basel II is effectively based on the assumption of a single systemic risk factor (see Gordy, 2003). This single systemic risk factor may be equated with the state of the domestic economy in which the bank has its main business. This ignores the potential advantages of diversification across sectors, industries and geographical areas. With respect to this latter, it is particularly unfortunate to ignore the benefits of international diversification, given that Basel II is meant to set a framework for internationally competitive banks.*

by limited liability) but the upside is not.

Similarly if the market and the prospect of remuneration require meeting some target rate of return, then conditions which make such a return harder to meet will lead to an acceptance of greater risk. Important among conditions that make profits harder to earn is competition. Greater competition amongst banks is *intended* to put downwards pressure on profits, and thereby reduce the return on

assets (ROA) and on equity (ROE). In order to restore profitability, banks will chase yield, i.e. by selecting a riskier portfolio.

So, by cutting profitability and raising the incentive to adopt risk, enhanced competition raises the risks of financial fragility. This was one of the conclusions of those who, at the time, tried to discover the causes of the financial collapse in the inter-war years. They blamed that, in some large part, on 'excessive' competition; almost all the resulting regulatory and structural 'reforms', both in the USA (Glass-Steagall Act; regulations on interest rates, etc.), and in Europe, were consciously anti-competitive, and encouraging the formation of cartels and cartelised pricing, (e.g. amongst the London Discount Houses).

Subsequent historical revisionists have tended to ignore, or to decry, the argument that enhanced competition can cause financial fragility, and have ascribed the inter-war regulatory/structural responses as due to capture by the industry, or just to plain error. The pendulum has swung right back in favour of the promotion of unbridled competition, (especially so when American interests are seeking to promote the entry of US banks into foreign countries). There is, of course, much to be argued in favour of such competition, in terms of static and dynamic efficiency, technology transfer, etc., but it seems obtuse not even to recognise the counter-argument in terms of financial fragility. One facet of this is that, in several recent World Bank studies of banking, an index of the well-functioning of banking systems across countries is taken to be the interest rate spread between deposit rates and loan rates; this is treated monotonically; so the lower the spread, the higher rated quality is given to the banking system. The concept that profits and interest rate margins can be too low for the health of a banking system seems to be alien to too many economists.

Another more commonly appreciated cause for consciously choosing higher risk levels is a desire to grow the book of assets, i.e. when growth as well as (risk adjusted) profitability enters into the utility function. This again is often due to the pattern of incentives. A loan officer receives upfront fees for making initial arrangements, and expects to have moved on by the time that they (fail to) payoff. The respect and remuneration awarded to a bank president is often a function of the size of the bank, not just its profitability. To achieve greater growth, than competitors, entails accepting either a lower expected return on assets or higher risk (or some trade-off of the two). Either way, financial fragility will result. When a large number of banks are

simultaneously 'going for growth', the systemic risk is magnified. As already argued, conditions of enhanced competition can lead to a general dash for growth (as in the UK in 1972/73 after the liberalising reform of Competition and Credit Control in 1971, for details see Bank of England, 1971).

A preference for riskier assets may be promoted (usually inadvertently) by regulation. One example that is sometimes advanced is that banks may seek growth in order to become 'too big to fail'. I doubt this. Asset management strategies are taken by bank executives. Banks may become too big to liquidate, but size should never preclude the sacking of a failing large bank's chief executives. Indeed the larger the bank, the longer the cast-list of prospective successors. What is becoming more troublesome, (notably in the aftermath of LTCM) is that financial intermediaries may become 'too complex to fail', (Herring, 2003). Even so, I am sceptical of suggestions that bank managers would consciously choose complexity, (e.g. Enron-type special purpose vehicles, exotic derivatives, etc.) on the grounds that this would protect them from dismissal in the event of failure.

What, instead, did happen is that greater international competition, post-liberalisation, led to falling profit margins, and this was one of the factors causing declining capital ratios. The regulators responded, (the Basel I Accord in 1988), by requiring higher capital ratios, and succeeded in achieving such higher ratios. But the higher ratios imply a lower rate of return on such capital, ceteris paribus. In order to restore profitability, the banks will be induced to chase yield. Moreover to restore profitability, banks will have to raise interest rate spreads. That will drive higher-quality borrowers to the capital markets, leaving the banks with lower quality clients. All this was compounded in Basel I by the adoption of a common, broad risk-bucket for bank lending to corporates. This encouraged the securitisation of high quality loans and regulatory arbitrage. This was, of course, one of the main rationales for the adoption of Basel II. Credit risk weighting on high quality corporate loans is now to be reduced in line with economic capital. But the proponents of Basel II did not want to accept any general lowering of capital ratios, so they injected the new concept of operational risk, which has its own complexities and deficiencies.

Several economists, Hellmann et al. (2000), Repullo (2005a and b), and Repullo and Suarez (2004), have made the point that capital requirement, taken on their own, could shift banks towards the choice of riskier assets, though this depends on the effects of CARs on banks' franchise values. It is also one of the implications of work that I have done with Tsomocos, Sunirand and Zicchino (e.g. Goodhart et al., 2004a and b, 2005, 2006). As penalties on infringing capital adequacy ratios rise, bank profitability increases, but at the expense of higher interest margins, more customer default and slightly lower growth.

6.2 Ignorant Banks

A bank (banker) that cannot assess risk accurately will misprice it, and hence is likely to become stuffed with higher-risk assets than planned or expected. Since experience provides much training in risk assessment, such mispricing is particularly likely when the bank (banker) first enters unfamiliar territory, notably after a regime change, so that the bank (banker) takes on new functions. It has long been known that a liberalising regime

change, allowing banks and bankers more scope to do additional business is a moment of particular danger. Not only is the banker unpracticed in risk assessment in the new fields, but also, as noted earlier, new entry is likely to enhance competitive pressures. While the liberalisation of the commercial banking regimes in China and India is highly desirable, this will nonetheless be a perilous passage, and needs to be accompanied by a reinforcement of the infrastructure of control mechanisms.

There is also, (Berger and Udell, 2003), some evidence that a prolonged experience of benign macro-economic conditions can lead to a failure to appreciate how much could go wrong in a downturn. Whether this counts as ignorance, or over-optimism, is perhaps a semantic issue, and leads directly on to my final category.

6.3 Over-Optimism

There is considerable evidence (Segoviano, 2005; Borio, 2005; Borio and White, 2004) that one of the most reliable predictors of future systemic financial crises is the rate of expansion of broad money and bank lending. It is beyond the scope of this paper to detail, or to add to, this evidence in any depth.

Irving Fisher (e.g. 1933), Kindleberger (e.g. 1996) and Minsky (e.g. 1982) have all outlined the framework of financial cycles, and Kiyotaki and Moore (1997) have given it a modern analytical dressing. A monetary cycle can amplify a real cycle. Often the upswing starts with a beneficial technology (or other supply) shock (canals, railways, electricity, cars, computer technology). This raises economic growth, profits and asset prices. This provides a better basis for lending, e.g. more collateral. More lending raises growth, profits and asset prices, and so on, until over-investment leads to profits falling below expectations, and then the downwards cycle begins (on this, also see von Peter, 2004).

This, however, raises the question why, if such cycles are such regular phenomena, they do not become expected, and hence smoothed out by rational efficient agents. There are several answers to this. First, such cycles are not regular, but occasional. Moreover it is difficult to distinguish changes in trend from cycles, until after the event. Irving Fisher notoriously saw Wall Street prices as justified by an improved economic trend. Alan Greenspan changed tack from concern about 'irrational exuberance' in 1996 to a belief in an upwards shift in US productivity growth later on. Others saw improved economic management lowering equity risk premia sufficiently to justify Dow at 40,000, plus an extrapolation of (implausibly) high earnings forecasts.

Asset markets are only weakly mean-reverting, and price/earnings and house price/income ratios are only stationary at low frequencies. Asset allocations and performance assessments are undertaken at much higher frequencies. It is not much comfort to be proven correct in the long run, if you have been fired from your job in the short run. Once again the structure of remuneration incentives is crucial. Bonus rewards are usually based on performance over the last year, not on an average of, say, 15 years.

What matters, therefore, for asset allocation is where the economy, and asset markets, are perceived to be

heading in the near term, *not* on uncertain long-run fundamentals, in so far as these latter provide any clear anchor. It is notoriously difficult to predict turning points, for the economy or for asset markets in advance. Given the uncertainty about whether, and if, a turning point will occur in the next year, there is a tendency to extrapolate recent performance. Good past performance leads to expectations of future good performance, and so on.

In the event, and with hindsight, good times lead to a degree of over-optimism, and vice versa. In a world of weak stationarity, uncertain turning points, and rewards based on high frequency performance, it would be hard to call this irrational. Can the regulatory/supervisory authorities do any better? Perhaps. Their reward structure is more strongly related to an absence of financial crises, so their concerns are more closely attuned to the risks of reversals, and of the danger of collapse attending prior booms.

That said, regulators have consistently failed to introduce counter-cyclical prudential controls. Indeed, there are widespread concerns that Basel II will further amplify procyclicality. But how, and why, this has been allowed to occur, and what could be done to reverse this, is beyond the scope of this paper.

7 Macro-Monetary Policies and Financial Stability

The subject allocated to me for this conference was the influence of fiscal and monetary policies on financial stability. The inter-relationship between fiscal policies and financial stability was discussed earlier in sections 2 and 3. I have tried to consider the factors causing banks to choose assets involving greater default risk in sections 4 to 6. That discussion had the following implications for macro-monetary policies:

(1) Conditions which lead to declining interest rate margins and falling profitability are dangerous.

(2) Attempts to protect the system by higher required capital adequacy ratios, without appropriate risk weightings, could lead to extra risk being taken on.

(3) Liberalisation, and regime changes, are moments of peril.

(4) Excessive risks are likely to be

taken on in the upswing, and realised in the subsequent downturn.

(5) One of the best measures of these dangers is the rate of growth of bank balance sheets, especially when they are rising relatively fast in relation to the underlying macro-economic conjuncture. Thus the fast rate of growth of M3 and bank lending in the euro area might be a harbinger, not necessarily so much of future inflation, but of forthcoming financial fragility in those Member States where such growth has been particularly pronounced.

By the same token, during downturns, expansionary monetary policy, to achieve price stability, will often have to face headwinds from an (over) cautious, contractionary banking system.

In part because financial regulators/supervisors have failed to introduce counter-cyclical effects, and may even have re-inforced a natural procy-

clicality, there is even more pressure placed on macro-monetary policies to stabilise the system, an extra pressure which in the case of Japan was beyond their capacity to meet. ❧

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