7. From National Towards European/Global Financial Regulation

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7.1. Introduction

The global financial system that had been developing in the decades up until 1914 was shattered by the two World Wars and the inter-war crisis. The reliance on exchange controls over international capital movements by countries with weak Balance of Payments after WWII further segmented banking systems into separate national silos, especially in Europe. Thus banking in France, West Germany, Spain, etc., was then done primarily, almost solely, by respectively French, German, Spanish, etc., banks. With (almost) all banking done by their own national banks, each country could develop its own national arrangements and traditions of regulation and supervision. In Section 7.2., we outline how such national separation broke down in the early 1970s under the influence of:

i. the growth of the euro-dollar international wholesale financial market;
ii. the arrival in Europe, especially in London, of cross-border (primarily US) banks;
iii. the imbalances resulting from the oil shock; and
iv. the growing porosity of exchange control barriers.

This led to a shift of financial regulation to the newly (1975) established Basel Committee on Banking Supervision (BCBS). In some ways this title is a misnomer, since the BCBS has remained throughout the main centre for the promulgation of banking regulation, whereas such international supervision as has been done (as contrasted with national supervision) has been done heretofore by the IMF; though from 2014 onwards the ECB will also be acting as a supervisory body in the Eurozone.

Given the manifold difficulties of adjusting from a national to an international system of banking regulation, the early years of this (BCBS) regime were relatively successful. The same cannot be said about the subsequent period, 1998-2013. In Section 7.3. we recount these more recent international developments, focussing on the introduction of the Basel II Capital Accord and the build-up to the financial crisis of 2008. We attribute much of the blame for this to the intellectual failures of the regulatory authorities, though the (successful) attempts of the regulated banks to manipulate the regulations to their own advantage was a contributory factor, (and the economics profession as a whole gave hardly any useful guidance).
In the penultimate section of this chapter, Section 7.4., we then discuss various aspects of the crisis itself, such as the interplay between the boom/bust cycle in the housing market and the real economy, the decision to liquidate Lehman Bros, and the steps then taken to support the main banks. One remarkable feature has been that a leading narrative applied for explaining the crisis, that it was all the fault of ‘casino’ bankers undertaking speculative bets in opaque, exotic derivative markets, is largely false. The crisis mainly arose from a standard (retail-based) interaction between pro-cyclical (retail) banking and a widespread boom/bust in housing. This misinterpretation has engendered a cacophony of proposals on how to reform the regulatory system, many of which are of dubious validity.

Partly as a result, the way forward remains unclear. We end, briefly, in Section 7.5., with a discussion of where we might go from here.

7.2. The Early History of International Regulatory Cooperation; the Basel Committee on Banking Supervision and the Basel I Accord

In the aftermath of WWII, the financial systems of the countries of Europe were characterised by exchange controls on capital flows, especially on outward flows, and by direct controls over bank lending, such as the ‘encadrement du credit’ in France. During the reconstruction after the war, priority was given to lending to manufacturing and to export industry. Mortgage lending for house purchase was primarily done by specialised housing finance institutions, building societies in the UK. In general, competition in financial intermediation, especially in setting interest rates, was severely restricted, and tightening monetary policy often worked by causing a sharp drop of inflows into those financial intermediaries whose conventionally set interest rates lagged behind the fluctuations of more flexible market rates.

There was a widespread appreciation of the potential dangers of inflation, particularly in Germany after its two hyper-inflationary experiences; and the pegged exchange rate (Bretton Woods) system made everyone concerned about the effect of relative (unit labour cost) inflation on the current account, and also on those components of the capital account, such as the leads and lags of trade finance, as could not be controlled by the pervasive exchange controls. Where it was felt necessary, government deficit finance was protected and supported by financial repression, both forcing financial intermediaries to hold large ratios of domestic government debt as liquid reserves and preventing such intermediaries from competing aggressively with their own governments for financing.
Banking in Europe had become almost totally national in character. Thus banking in each country in Europe was done almost entirely by banks headquartered in that same country. Moreover, with the exception of those banks in European countries which undertook business in overseas dominions or colonies, e.g. UK in the Empire, France in Africa, Spain in Latin America, etc., there was little exposure of European banks to the outside world, including to other European countries. In 1965, for example, there were only a few foreign banks in London, of which only a minority came from other countries in Western Europe.

In such a fragmented, nationally-based context, regulation and supervision could, and did, develop separately in each country along lines that depended on the idiosyncrasies of that country’s own history, institutional developments and thinking. Thus banking supervision was done within Central Banks in some countries, but in specialised supervisory institutions in others, with a variety of links to the Central Bank. Given the restricted nature of banking, especially those direct controls on bank lending, there was little need for much direct supervision; in the UK, the Bank of England undertook limited supervision through the Discount Office, staffed by the Principal with a handful of more junior officials, and this sufficed well enough until the Fringe Bank crisis of 1973/74. There were few bank failures and no bank crises between 1945 and the 1970s.

This separate development of the national banking systems in Europe led to differing approaches towards the interactions between Central Banks and their respective commercial banks in the provision of liquidity support, and thus in the definition and requirements for holdings of liquid assets. Prior to the 1970s official controls over liquid assets ratios (and cash ratios) were regarded as more important than capital ratios and requirements. But, just as with differing treatment of liquidity, Central Banks, and separate supervisory institutions, also developed separate definitions, and preferred norms, for the capital funds that they would prefer their own banks to maintain.

The country where the banks had the greatest exposure abroad was the United States. It was then by far the economically most powerful nation, with the largest number of multinational companies. When abroad these companies naturally looked to their own US bank(s) for help with trade finance and other forms of

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1 Prior to the 20th Century, Central Banks were seen as being commercial banks with special powers and privileges, and hence also responsibilities; but still doing ordinary commercial business in competition with other banks. It was, therefore, unthinkable that they should have informational access to, and any control over, the asset portfolios of their banking competitors. In so far as they undertook prudential regulation, it was primarily over the quality of the assets that they might be called upon to discount in their role of lender of last resort, in the light of the real bills doctrine. In so far as banking crises led to calls for more direct supervision over banking portfolios, as occurred in several Continental European countries, this was done in separate supervisory bodies, established under the auspices of the Ministry of Finance. Similarly any requirements for the maintenance of cash, or liquidity, controls were originally usually introduced by the Ministry of Finance, rather than the Central Bank. It was not until after World War II that the Central Banks became generally seen as quasi-public, rather than private, institutions. Even then, the relationships between the Central Bank and the main commercial banks remained at arms-length in many countries. This broader topic is, however, outside the scope of this chapter.
financial support. Having benefited economically from being the arsenal of the West in WWII (and then again with Cold War rearmament and the Korean War), the US felt no need for exchange controls in the post-war period. So large, reputable European companies, faced with financing constraints in their own country could borrow in dollars from US banks and swap the funds into domestic currency for use at home. Such capital inflows were generally welcomed.

The Cold War had, meanwhile, been a major factor in the genesis of the euro-dollar market. Institutions of various kinds from Communist countries which earned dollars, for example from trade, did not want to place these with US banks, particularly when sited in the US, for fear that they might be blocked, should the Cold War flare up. So they began depositing such dollars with European banks, especially in London, and a market for such euro-dollar deposits sprang up there, encouraged by the Bank of England which was keen to see a revival of London’s entrepot trade in foreign currencies. So long as sterling did not flow out, such entrepot trade was free of exchange controls.

In this context the development of an off-shore, unregulated, international euro-currency market appeared a serious threat both to the maintenance of the (pegged but adjustable) international Bretton Woods system, and to domestic monetary control. Barry Johnston in his book, *The Economics of the Euro-Market* (1982), writes as follows, (pp. 11-16),

“Throughout the 1960s, and indeed the 1970s, the Euro-currency market grew at a remarkable pace. In September 1963 – the earliest date for which systematic data are available on the foreign currency activities of European banks – the total short-term foreign currency assets of the commercial banks of nine countries reporting to the Bank for International Settlements was USD 12.4 billion (of which USD 9.3 billion was in US dollars). By the end of the decade this aggregate had grown by over 500 per cent to USD 63.4 billion (of which USD 53 billion were US dollars), i.e. at an annual compounded rate of around 31 per cent per annum. The internationalisation of banking and the growth of the Euro-currency market was importantly stimulated by national controls and regulations introduced in the 1960s and early 1970s to restrict the international flow of short- and longer-term capital. These controls shifted the locus of international transactions to the Euro-currency markets and away from national banking systems. In early 1965 the introduction of the Voluntary Foreign Credit Restraint Program (VFCR) in the USA severely limited the ability of US domestic banks to lend directly to foreigners. The VFCR, which was part of a larger programme, including the Interest Equalization Tax (IET), introduced in July 1963, and the Foreign Direct Investment regulations (FDI), aimed at improving the worsening

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2 See also Dale (1984), especially Chapters 1 and 2.
US balance of payments by curbing capital outflows. Under the VFCR
banks (and other non-bank financial intermediaries) in the USA were
asked to keep their loans to foreigners and other foreign assets within a
certain ceiling limitation, and during the period up to 1970 the foreign
credits of US banks varied within a narrow range of USD 9.25 billion to
USD 9.75 billion. However, as the programme applied only to the oper-
ation of US-based banks and not their foreign branches, it had the effect
of shifting the foreign operations of US banks to their foreign branches
and the demand for international finance to overseas markets, particu-
larly the Euro-currency market.

Brimmer and Dahl (1975) document the very rapid expansion of the for-
eign branches of US banks which accompanied these controls. As shown
in the Table below, at end-1964 only 11 US banks had established
branches abroad, operating 181 foreign branches; however, by end-1973,
just before the controls were taken off, there were 125 banks with a total
of 699 foreign branches, and the total assets of these branches had risen
from USD 7 billion to USD 118 billion. There was also a sharp increase
in the so-called ‘Edge Act and Agreement’ corporations, which are
domestically organised subsidiaries that serve as a vehicle for foreign
banking and investment. The number of these rose from 38 in 1964 to
104 in 1973 and their assets from USD 0.9 billion to USD 6.9 billion.”

Table 7.1: International operations of US banks: Selected indicators, 1964-73

<table>
<thead>
<tr>
<th>Category</th>
<th>1964</th>
<th>1970</th>
<th>1973</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. US offices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank Credit to Foreigners (USD bn)</td>
<td>9.4</td>
<td>9.7</td>
<td>17.2</td>
</tr>
<tr>
<td>II. Overseas branches of US banks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of banks with overseas branches</td>
<td>11</td>
<td>79</td>
<td>125</td>
</tr>
<tr>
<td>Number of overseas branches</td>
<td>181</td>
<td>536</td>
<td>699</td>
</tr>
<tr>
<td>Asset of overseas branches (USD bn)</td>
<td>6.9</td>
<td>52.6</td>
<td>118</td>
</tr>
<tr>
<td>III. ‘Edge Act/and Agreement’ Corporations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number</td>
<td>38</td>
<td>77</td>
<td>104</td>
</tr>
<tr>
<td>Assets (USD bn)</td>
<td>0.9</td>
<td>4.6</td>
<td>6.9</td>
</tr>
</tbody>
</table>

In the USA, under Regulation Q, ceilings were imposed on the level of interest
rates banks were permitted to pay on deposits in the USA (but not their branches
abroad). When credit was tight in the USA and market interest rates moved above
the Regulation Q ceilings, banks in the Euro-currency market had an interest-rate
advantage in attracting dollar deposits. The impact of these ceilings on the
growth of the Euro-dollar market was particularly marked in 1968 and 1969 as
interest rates rose during a period of credit restraint.

Western Europe domestic corporations also used Euro-markets as a source of
funds when the supply of domestic credit was restricted. Under tight monetary
conditions West German enterprises were reported to have obtained about one-third of their total borrowing needs from abroad in 1970; and UK business firms borrowed heavily in the Euro-currency market during 1969-70 when there were quantitative limitations on the supply of domestic bank credit. In both countries controls on the import of capital had to be tightened to insulate the domestic market from external flows. On the other hand, the Italian authorities gave active encouragement to Euro-dollar borrowing by Italian corporations as a way of financing Italy’s external payments deficit and as a supplement to domestic savings.

Other monetary regulations favoured the growth of the Euro-currency market. Unlike the situation in the US and West German domestic markets, Euro-banks were free from the requirement of holding non-interest-bearing reserve balances against deposits. These balances are held primarily for the purpose of domestic monetary control in these countries. The absence of these domestic regulations in the Euro-market enabled banks to offer higher deposit rates, and short-term Euro-dollar interest rates were usually some ½ per cent higher than in the US domestic market. Moreover, while it was illegal in the USA to pay interest on demand deposits and time deposits of less than thirty days, there were no such restrictions in the Euro-market. It was also reported that in making loans Euro-banks could operate on narrower lending margins, determined in a freely competitive market, than in national markets, where lending rates tended to be partly administered. This general freedom that the Euro-market enjoyed from regulatory constraints and the associated advantageous interest-rate terms it offered to both depositors and borrowers, the different constellation of geographical, sovereign and institutional risks in the Euro-market compared with national money markets, the relative freedom of capital movements and an emerging desire by wealth-holders to internationalise their investments, all added to the attractiveness of the Euro-currency markets to depositors and thus to the supply of foreign currency deposits to banks.³

So the late 1960s and early 1970s saw an influx of branches and subsidiaries of US banks into most West European countries, and of both US and European banks into London to participate in the euro-dollar market, which was centred there. At an early meeting of the Groupe de Contact (June 1973),

‘The respective participants noted that the following percentages of banking assets in their countries (roughly) was held in euro-currency assets:
- Netherlands: 40%;
- Belgium: 30% to 40%;
- Luxembourg: up to 80%’

Goodhart (2011), p. 27.

Banking and finance were becoming international, global.

The first response by the supervisory community was to establish an unofficial discussion group, the Groupe de Contact,

‘The circumstances leading up to the formation of the Groupe were as follows. On 25 February 1972, there was a telephone call between Herman Baeyens, then Deputy Director of the Commission Bancaire in Belgium, and Huib Muller, a young but middle-ranking official in the banking supervisory department of the Nederlandsche Bank. Baeyens wanted to discuss how to handle the proposals of an American commercial bank, which wanted to establish simultaneously in Belgium a subsidiary for managing domestic business and a representative office for dealing with non-domiciled international business. “Towards the end of this discussion Baeyens noted that it was a pity that there was no place where international supervisory issues could be discussed by those concerned.”

Muller was of the same opinion, as he wrote in his note for the record on the telephone discussion, dated 28 February. In this he remarked that someone should take the initiative to set up such meetings. He was as good as his word.’

Goodhart (ibid.), p. 13.

The members were supervisory officials from the initial six EEC countries, with the intention of soon adding the then four candidate countries, including the UK. The proposed initial agenda was:

‘1. Liquidity and solvency regulations;
2. Capital requirements, (e.g. treatment of hidden reserves);
3. Limitations on large exposures;
4. Philosophy on treatment of minority interests;
5. Handling of external (overseas) commercial bank offices;
6. Continuation of Groupe discussions on a permanent basis.’


The relationship between this unofficial group of EEC bank supervisors and the EC itself was cautious and wary. Robin Hutton (who died in 2007), who became Director of Financial Institutions in the European Commission once the UK joined the EEC in 1973, wrote to me (personal correspondence) to raise the question why it had taken so long to set up such a Groupe. Then he wrote that

‘by the early 1970s it was, I believe, pretty clear to both bank managements and their national supervisors that the responsibility of the

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4 Translated from the original Dutch records in the archives of de Nederlandsche Bank for me by the Archivist/historian, Arnoud Glaudemans, to whom I am most grateful.
supervisors had to become more extensive and complex – and more internationally cooperative – if the scope for disaster was to be minimised.

One reason is that the heterogeneous structure of banking supervision, with some supervisors being within central banks and some without, complicated the process of international co-ordination. One possible additional reason for the slow process was the existence of doubts and uncertainty about the proper role of the EC itself in such an exercise. This vexed question continued to trouble the Groupe.

Another possible cause for hesitation, at least for EEC member authorities, might have been the juxtaposition of their need for greater openness with each other with the efforts of national governments to move towards a Common Market in Banking. The Directives on Banking had been launched by the Commission of the Six, before the enlargement of the EEC to nine Member States in 1973, as part of a programme aimed at harmonising existing national legislations into a single body of Community Law. The drafting was done by German lawyers on the Commission staff and negotiated amongst civil servants of national government departments rather than banking supervisors – though some of the latter may have been consulted from time to time. This process may have given rise to a suspicion among several supervisory authorities that the Directives and their implementation might be too legalistic in both text and practice, restricting the fleetness of foot supervisors could often require. Thus there could have been some suspicion that politics might get in the way of proper action by supervisory authorities, especially when some prominent banks were State-owned. Goodhart, (ibid.), pp 12/13, footnote 2.

The central role of the euro-dollar, or more generally the euro-currency, market was given a strong further impetus by the shock quadrupling of oil prices following the (fourth) Arab-Israeli war in October 1973 and the formation of OPEC. The oil producing countries received huge inflows of dollars, which initially they had no means of using domestically. So they placed these, in dollar form, primarily with the largest banks, and mostly in the euro-dollar market.

Those years, 1973/74, were at the tail end of a generalised boom, which was partly initiated by the final collapse of the Bretton Woods system in 1971/72. The disappearance of the discipline of maintaining a pegged exchange rate allowed several of the economically weaker countries, such as the UK, to make a dash for growth. Towards the end of this period of sharp credit expansion, banks and banking systems became fragile. Herstatt and Franklin National both failed in 1974, and the Fringe Bank crisis in the UK began at the end of 1973, (also see Chapter 12 in this Volume).
'The Economist, on 3 August 1974, pp 55-7, wondered aloud whether there might be ‘A World Banking Crisis?’ in the aftermath of Herstatt. This had three, interconnected, facets,

“The three big international banking problems of the moment are the dangerous curb in foreign exchange markets, the uncertainty about how oil money will move in the two usual crisis months of August and September, and the way in which fears of crashes are causing money to be withdrawn from small banks all round the world.”’ Goodhart, (ibid.), p. 32

In particular, the growth of the Euromarkets, with large volumes of such deposits being channelled through the branches and subsidiaries of foreign banks in host countries (especially, but not only, in London), led directly on to the question of what were the relative responsibilities of the home, and host, authorities respectively for the solvency and liquidity of such foreign banks. This question was deemed sufficiently important to engage the direct interest of politicians, in the guise of a meeting of G6 Finance Ministers, together with their Central Bank governors, in France in September 1974. The French Minister, M. Fourcade, then,

‘went somewhat further in his Press Conference than had been anticipated, and gave the impression that the G10 Central Bank Governors would be making an announcement at their subsequent Basel meeting, on the following two days, of measures to monitor and support the Euromarkets. So, the Governors found themselves under intense pressure to come up with some form of words to that general effect.’ Goodhart, (ibid.), p. 38

The communique that the G10 Governors then agreed reads as follows:-

‘At their regular meeting in Basel on 9th September, the Central-Bank Governors from the countries of the Group of Ten and Switzerland discussed the working of the international banking system. They took stock of the existing mechanisms for supervision and regulation and noted recent improvements made in these fields in a number of major countries. They agreed to intensify the exchange of information between central banks5 on the activities of banks operating in international markets and, where appropriate, to tighten further the regulations governing foreign exchange positions. The Governors also had an exchange of views on the problem of the lender of last resort in the Euro-markets. They recognized that it would not be practical to lay down in advance detailed rules and procedures for the provision of temporary liquidity. But they were satisfied that means

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5 One could well ask why the IMF was not brought in to this. The answer, I believe, is that the Fund answers to political masters, and the Central Banks wanted to keep the politicians at bay on such issues.
are available for that purpose and will be used if and when necessary.’

Goodhart, (ibid.), p.39-40

The G10 Governors\(^6\) had already set up an international macro-economic sub-committee, the Euro-currency Standing Committee, in April 1971. An obvious follow-up, particularly given the agreement set out in the second paragraph of the above Communiqué, would be to set up a second sub-committee to advise on international regulatory and prudential issues. Such a committee already existed in outline form in the Groupe de Contact, but this was a purely European, and entirely unofficial, body\(^7\). Moreover, several countries in the Groupe were represented by officials from specialised prudential authorities, not from their Central Bank. The G10 Governors got around this latter difficulty by having all countries send two representatives\(^8\) to the new Committee, the first would be a prudential supervisory expert, and could come, as was institutionally appropriate either from the specialist supervisor or from the Central Bank, if the latter did the supervision. The second representative had to come from the Central Bank, and initially was to be a foreign exchange market expert. The member countries of this new Basel Committee on Banking Supervision were the G10 countries, Belgium, Canada, France, Germany, Italy, Japan, Netherlands, Sweden, UK and USA, plus Switzerland as host country, and Luxembourg (see previous footnote), twelve in all, of which nine were European. This Committee was initially called the Basel Committee on Banking Regulation and Supervisory Practices, but eventually got shortened to Basel Committee on Banking Supervision (BCBS). In the earlier years it was commonly referred to under the name of its Chairman, i.e. initially George Blunden (1975-77), and then Peter Cooke (1977-1988).

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\(^6\) “The origins of the Group of 10 have to do with the borrowing powers of the IMF. The first credit lines established by the Fund to supplement its quota-based resources were the General Arrangements to Borrow or GAB. This was an agreement negotiated by the Fund with eight of the major industrial countries (United States, United Kingdom, France, Japan, Italy, Canada, Netherlands, Belgium) and the central banks of two others (Deutsche Bundesbank and Sveriges Riksbank) in 1962. (See Lastra, Legal Foundations of International Monetary Stability (2006), pp. 386-387. See Decision of the Executive Board No. 1289-(62/1) of 5 January 1962 with effect from 24 October 1962. The decision, as amended, is published in Selected Decisions of the International Monetary Fund, 23rd edition (Washington DC: International Monetary Fund, 2000)). The G-10 or Group of Ten refers to the group of countries that agreed to participate in the General Arrangements to Borrow. Under this agreement, the members would consider supplementing the Fund’s resources if further resources were necessary in order to finance the transactions of any of them with the Fund.” Goodhart, (ibid.), pp. 10/11. Also see Chapter 1 in this Volume.

By the 1970s the occasional meetings of these Governors to consider Fund borrowing had been transformed into regular monthly meetings to review the state of the international financial system and to share confidential comments on economic developments on their own domestic economies.

\(^7\) When the American authorities, the Fed, learnt about the Groupe earlier in 1974, they proposed widening it to include representatives of Canada, Japan, Switzerland and the USA. The members of the Groupe were divided on how to respond, and delayed making any response. This question was then overtaken by the separate formation of the Basel Committee on Banking Supervision, see Goodhart (ibid.), pp. 22/23.

\(^8\) There were two exceptions to this. First, one of the founders and a leading figure of the Groupe was Albert Dondelinger of Luxembourg. So it was felt wrong to exclude Luxembourg from the BCBS, despite it not being a G10 member. But it was only accorded one seat. The other exception was the USA. Its segmented supervisory structure, with both the Board and the FRBNY having a direct interest from the Fed, plus other supervisory bodies, such as the OCC, FDIC and even the FHLB, wanting to be part of the action, especially after the Basel I Accord in 1987/88 put the BCBS in the public eye, meant that after 1987 the US usually sent four to six people to each meeting.
George Blunden was appointed the first Chairman, for background see Goodhart (*ibid.*), p. 43. He outlined the main functions of this Committee, first in his opening remarks for the first meeting in February 1975, and second in a paper prepared for a SUERF Conference and published in 1977.

The first (see Goodhart, *ibid.*, p. 45) reads:

‘You have all received a copy of the record of the Governors’ decision to establish this Committee. Five important points emerge from that record:

(i) Our main objective is to help ensure the solvency and liquidity of banks;

(ii) Our work should lead to further discussions among the Governors themselves;

(iii) We should take as our starting point the summary report on existing regulations and supervisory practices already prepared by the B.I.S.;

(iv) We should give particular attention to the need for an early warning system;

(v) We should remember that the quality of work done in supervision is at least as important as the regulations themselves.’

The second, (pp. 195-6, reproduced in Goodhart, *ibid.*, p. 47) reads:

‘The committee was established as a permanent standing committee, meeting periodically throughout the year, and not as an ad hoc committee to perform a particular task against a time limit. Dr. Zijlstra, the President of the Nederlandsche Bank, who is also President of the Bank for International Settlements and Chairman of the Group of Ten Governors’ Committee, laid down that the committee’s objective should not be to make far-fetched attempts to harmonise the twelve countries’ individual systems of supervision, but should be to enable its members to learn from each other and to apply the knowledge so acquired to improving their own systems of supervision, so indirectly enhancing the likelihood of overall stability in the international banking system. And the committee was particularly charged to bear constantly in mind the need for means of improving international early warnings of potential troubles in banking systems where these troubles might cross frontiers.’

The first job of the BCBS was to sort out the relative responsibilities of home and host supervisory authorities for the subsidiaries and branches of foreign banks, (including the more complicated case of joint ventures). This had already been discussed at the Groupe de Contact, and Huib Muller, one of the leading lights of the Groupe and then appointed to the BCBS, (where he subsequently became Chairman and died in harness), produced the definitive paper on this shortly after the first meeting; briefly (for a longer version, see Goodhart (*ibid.*), Chapter 4, Section A), the host country was primarily responsible for the arrangements
relating to the liquidity of foreign banking establishments within its jurisdiction, whereas the home authority had the main responsibility for the solvency of cross-border establishments. While this responsibility was absolute in the case of branches, it would also be “advisable” for host countries to concern themselves with the solvency of foreign bank subsidiaries in their own countries. Another main focus of work was to apply the principle of consolidation for the supervision and balance sheet auditing of cross-border international banks, work which became known as the “Concordat”.

The main concern of the G10 Governors, when setting up the BCBS, had been a potential crisis in the uncontrolled, vast and rapidly growing euro-dollar market. This did not happen in the 1970s; indeed the large banks played a useful role in recycling funds from oil-producing countries to oil-importing countries, especially in Latin America. With nominal interest rates tending to lag behind inflation, and with growth in those countries doing quite well, such international credit flows caused few problems at that time.

Nevertheless capital ratios were falling, and there was beginning to be anxiety about capital adequacy by the start of the 1980s. The real catalyst for change, however, was Volcker’s shift of monetary policy on October 4, 1979, from setting an official (Fed Fund) interest rate to a non-borrowed reserve base system. The purpose of this change was to allow much more flexible upwards movement in interest rates, in order to defeat inflation in America. Subsequently interest rates rocketed upwards, leading to a short, sharp deflation in 1981/82, and a collapse in the value of Latin American exports. Neither the bankers nor the sovereign borrowers in Latin America had appreciated how quickly a previously successful pattern of sovereign bank loans could become completely unsustainable.

Mexico, Argentina and Brazil then threatened (1981) to default. With their loans to such countries now trading at a much lower market value, almost all City Centre US banks, and probably some large European banks, would have been bankrupt on a mark-to-market accounting basis. Although the crisis was in practice averted (in part by a combination of forebearance and ever-greening) Congress was horrified that the US banks had run down their equity capital sufficiently to get into such a parlous state. Congress threatened to raise capital adequacy requirements (CARs) unilaterally on US banks. But foreign banks, especially, but not only, Japanese banks, (the 1970s and 1980s having been the high tide for Japanese economic expansion), had become widely established in the USA. The American banks lobbied Congress on the basis of the level-playing-field argument, arguing that raising CARs on them alone would just lead to transfers of intermediation (disintermediation) to foreign banks. So Congress mandated Volcker to go to Basel to obtain an international agreement, via the BCBS, to raise CARs throughout the G10 countries, and perhaps everywhere.
The problem was that the BCBS worked by consensus. As a committee of supervisory officials set up by a, somewhat self-appointed, group of large country Central Bank governors, it had no ability to require, sanction or force anybody to do what they did not want to do. But there was no consensus on the best definition of capital, or on its appropriate ratio to asset(s). The American experience led them to prefer a simple leverage ratio, but the Europeans, who had far more seats at the BCBS, were emphatically determined to relate capital to assets weighted by their purportive risk (risk-weighted assets, RWA). While the American representatives at the BCBS did not seek to stop the European majority from proceeding on a RWA basis, they were far less able, than their European colleagues, to push BCBS agreements through their own legislature (Congress). The Europeans found their American colleagues hard to deal with in the sense that there was always a feeling that hard-fought BCBS negotiations could be negated, or distorted, by subsequent political manoeuvring in Congress. Nevertheless the overwhelming importance of the US economy, of the dollar, of the euro-dollar market and of US banks in Europe meant that every effort had to be made to keep the USA on-side. The effect of the withdrawal of the USA from the League of Nations and from the BIS in the interwar years remained on everyone’s mind.

Not that the Europeans always maintained a united front. As earlier noted, prior to the 1970s, each nation had developed its own approach to liquidity and solvency management. In particular, Germany had a different banking system and a different approach to the appropriate definition of capital. The German representatives remained obstinate; negotiations went on interminably and unavailingly. Eventually it took a power-play by the USA and the UK, with the slightly grudging acceptance of the Japanese, effectively to threaten to introduce their own agreed version of a CAR unilaterally onto their own financial markets, to force negotiation of a compromise package through at the BCBS. This turned out to be the Basel I Accord, negotiated in 1987 and introduced in 1988.

At much the same time the BCBS also tried to reach a similar Accord on liquidity management and required ratios, see Goodhart (ibid.), Chapter 9. But, once again, national practices had become customary and had hardened in the decades after World War II. Which assets are liquid depends in some large part on which the Central Bank will discount or accept as collateral for a loan, and the various Central Banks had adopted different practices which they were loathe to give up. So there was no consensus. Having just been through a bruising battle to force agreement on capital, CARs, Central Bank governors had much less stomach for another set-piece struggle. Moreover, they all comforted themselves that agreement on CARs, by supposedly ensuring solvency, should always allow banks that abided by the Basel Accord(s) to access the wholesale (e.g. euro-dollar) markets, so that funding liquidity could then become an acceptable substitute for asset
market liquidity. During the decades from the 1970s onwards, until 2009, asset liquidity in banks declined sharply.

As was their wont, the BCBS, and the G10 Governors, regarded this Accord as applicable only to themselves. While they recommended its adoption by other developed countries, e.g. countries such as Australia and Norway, they were (pleasantly) surprised by the alacrity with which its precepts were adopted in almost all other (non-communist) countries. But they did not then see themselves as having any responsibility for non-G10 countries, though they did establish a close liaison with a working group of supervisors from off-shore centres, (partly through the enthusiastic good offices of Mr. Colin Powell of Jersey).

What changed their position was a generalised desire that prudential supervision be strengthened in emerging market countries, which got political support at the June 1996 G7 Finance Ministers and Heads of State meetings. Initially the BCBS was rather reluctant and sniffy about taking on such a role vis-à-vis non-G10 countries. But when it became apparent that, if the BCBS would not take on this task, then the IMF would, their tune changed abruptly. There was a meeting between the Chairman of the BCBS, Tommaso Padoa-Schioppa and Manuel Guitian of the IMF in 1996, at which it was agreed that ‘rule-making’ would remain in the hands of the BCBS, whereas examination of how all the various countries were abiding by the various regulations, standards and codes would be a job for the IMF, in what then became its Financial Sector Assessment Program (FSAP) exercises. The BCBS’ paper on ‘The Core Principles for Effective Banking Supervision’ was then rapidly prepared and published (in September 1997).

So, by the middle/end of the 1990s the status of the BCBS had changed and widened. From being a new, small, unofficial Committee of supervisory officials providing consensus advice to their own Central Bank Governors, it had become the quasi-official financial rule-making (regulatory) body for banks throughout all the world. Even from the very start, however, the BCBS became the main focus where European, as well as global, regulatory issues were discussed and hammered out.

‘The tension between the need for international harmonisation and national jurisdiction has been particularly marked within the European Union, and finding ways to overcome this tension has been a leitmotif of the European Commission. So, the BCBS has usually operated in tandem, with complementary groups acting at the EU level, such as the Groupe de Contact and the Banking Advisory Committee (BAC)\(^9\). Nevertheless, given the leading role of US financial intermediaries in the world’s financial system, and the large role of those from Japan, it was clearly

\(^9\) Moreover the supervisory officials from the Central Banks would move interchangeably between the BCBS and the various purely European supervisory bodies.
preferable to agree on a common regulatory basis amongst Europe, North America and Japan, rather than for the Europeans to follow an entirely separate approach that might be unacceptable to their American and Asian colleagues.

While the various strictly European bodies, such as the BAC, would most often be discussing identical issues simultaneously with the BCBS, for example on supervisory consolidation, capital adequacy, maturity mismatch in the euro-markets, and so on, it became in practice the BCBS where the main decisions were taken, with the EC Directives transcribing the positions agreed within the BCBS. This is not to suggest that the BCBS overrode European concerns, rather the reverse.’ Goodhart, (ibid.), p. 2.

Thus nine of the twelve countries represented on the BCBS were European (the several G10 members, plus Switzerland and Luxembourg). The Europeans forced through their preferences, e.g. on the use of RWAs and the zero-risk-weighting of OECD sovereign debt, even when subsequent experience indicated that the American position was better founded10.


The Achilles heel of the Basel Accords has lain in the conceit that the authorities could ascribe (constant) relative risk weights to various bank assets. Initially this problem had two main facets. The first related to sovereign bonds. The American representatives had wanted to treat the sovereign bonds of a bank’s own country, e.g. the Italian sovereign bonds held by Italian banks, as effectively riskless, whereas the sovereign bonds of any other country should have a risk weight, perhaps depending on its credit rating. The Europeans demurred. They insisted that the sovereign bonds of any member country of the EEC should be equally regarded as riskless, irrespective of whether they were held by the banks of that, or another, country. They got their way. But, if one was going to treat the sovereign bonds of Italy, or Greece, as riskless, one could hardly regard the sovereign bonds of Australia or New Zealand as riskier. The solution that was found, not happily but as the best of a set of poor options, was to treat the sovereign bonds of all OECD countries as riskless, and those of all non-OECD countries as being of, equal, fairly low, but not zero, risk.

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10 But when the Americans felt pushed too far, they would simply ignore BCBS’ agreed positions.
Initially, in the 1980s and 1990s, this separation into non-OECD goats and OECD sheep caused umbrage amidst the financially stronger non-OECD countries, especially middle-East oil exporters, and a special exception had to be made for Saudi Arabia. Thereafter cynics noted that promotion of a country to inclusion in the set of OECD countries, and hence with supposedly riskless sovereign bonds, seemed on a number of occasions to be followed quite closely by a financial crisis, during which a sovereign default appeared, at least for a time, to be possible. This happened, for example, with both Mexico and South Korea.

More recently, however, the travails of the peripheral countries of the Eurozone, such as Greece in particular, but also Cyprus, Ireland, Italy, Portugal and Spain, has made the treatment of their sovereign bonds as riskless, when in the portfolio of a bank headquartered in some other (European) country, patently ludicrous. Presumably this nettle will sometime be grasped, and the BCBS will retreat to the initial, and more sensible, proposal that the Americans had put on the table in the mid-1980s.

Although the Europeans were adamant in their demand that CARs should be related to RWAs, they were aware that their capacity to assess risk was limited, to say the least. Much of the demand to use risk weighting arose from a desire to treat bank holdings of public sector debt as riskless, relative to riskier claims on the private sector, rather than from any conviction of their superior analysis of risk. Accordingly with limited time and limited expertise, the BCBS negotiators divided bank assets up into very broad risk ‘buckets’; all the assets in each ‘bucket’ would then have the same risk weight.

In particular all bank loans to private sector borrowers were placed in a high (100%) risk category under Basel I, irrespective of whether they were made to the largest, safest company around, or to a fly-by-night one-man bucket-shop. This meant that a huge discrepancy developed between the (low) amount of ‘economic’ capital that a bank would want, for its own purposes, to maintain against loans to safe private sector borrowers and the much higher required regulatory capital. Per contra, the regulatory CAR on loans to ‘bad’ borrowers was often below that which the banks would want to keep as ‘economic’ capital for their own protection.

Clearly there was now a profit to be made by on-selling the better private sector loans to non-bank financial intermediaries who did not have to maintain the ‘excessive’ banking CARs on such assets. The way that this was done, for legal, administrative and transactional reasons, was to bundle such loans up into a new securitised form. Initially such securitised products were sold to traditional non-bank financial intermediaries such as insurance companies and pension funds. Increasingly, however, banks came to appreciate that they could establish associated shadow-banks, e.g. in the form of Structured Investment Vehicles...
(SIVs), which could use (short-term) finance obtained from wholesale markets (not deposits) to support collateralised, securitised loans of various kinds, such as Collateralised Mortgage Obligations and Collateralised Debt Obligations (CMOs and CDOs); and do so with a much reduced CAR.

These were decades of increasing financial liberalisation, especially in lending to persons, in the shape of credit and loans, mortgages offered to a wider range of potential borrowers (e.g. sub-prime), automobile loans, student loans, etc., etc. As Lord Turner has noted (2010) banks were lending relatively much less to industry, where the bigger firms were now looking more to capital markets for finance, and were now intermediating primarily between borrowing and lending individuals. Meanwhile, this financial liberalisation was causing the growth rate of (bank) credit to be significantly greater than that of bank deposits (Schularick and Taylor (2009) and Jorda, Schularick and Taylor (2012)). In the previous century before about 1970, indeed as far back as the data enable one to go, bank credit expansion and bank deposit expansion had risen hand in hand. Over the next 35 years they diverged, with bank credit growing considerably faster than bank deposits. This was facilitated both by the process of securitisation and by increasing resort to non-deposit wholesale funding, plus the associated rapid expansion in shadow banking.

Such developments were partly driven by regulatory arbitrage, and this worried the regulators. In particular, securitisation was intentionally shifting the best private sector assets out of the banks, and leaving them with the worst quality private sector assets. Basel I appeared to be having the effect of turning ‘good’ banks into ‘bad’ banks, and that was unacceptable. This was the background context in which work on Basel II got under way towards the end of the 1990s.

The other main feature of the time, the mid to late 1990s, was that the analysis of risk (and of potential return), especially by commercial banks, was becoming far more quantitative, i.e. based on mathematical models, and hence supposedly more ‘scientific’ than before. The key innovation in the field of risk measurement was the development, by Harry Markowitz in 1952, of the Value at Risk (VaR) metric. So, when the officials at the BCBS turned to the assessment of Market Risk in the mid 1990s, and circulated a draft paper based on the prior system of separate risk buckets, they were told, correctly, by the banks to whom they had circulated their Working Papers that their analytical procedure was old-hat and deficient. The regulatory officials accepted this criticism, and rushed to catch up on their model-building analytical technique, setting up modelling sub-committees, etc. But the private sector could hire more, better-trained ‘quants’, and the regulatory community became ‘cognitively captured’ in the sense that it was not only prepared, but actually keen, to use techniques and methods for risk assessment developed by the industry for regulatory purposes.
This was a mistake. This is not because the techniques and measurements developed by the private sector were consciously biased and self-serving, but because they were developed for different purposes. The objective of the VaR was to tell top management how risky its own portfolio was currently. And almost all the time (risk/return) conditions are (log) normal. But financial returns exhibit fat-tails (excess kurtosis) and downwards skew. So VaR based on an assumption of normality, is a poor measure of extreme risk. This is of less consequence to the bank manager, since in major crises the authorities will have to respond with policy measures, but the effect of such crises should, of course, be central to the concern of the relevant authorities. Historically based measures of VaR are not so subject to this critique so long as a major crisis occurred during the data period. But long periods of crisis-free outcomes, for example 1993-2007 in most of Europe, will have led to a diminishing appreciation of risk, and in a supposedly ‘scientific’ manner to boot.

Not only did VaR focus, perfectly reasonably from the viewpoint of the bank manager, on normality rather than on panic and crisis, but also it focussed, as it should from a managerial viewpoint, on each single institution (micro-prudential) rather than on the system as a whole (macro-prudential). From a micro-prudential standpoint, the senior tranches of a collateralised mortgage based security were, both historically and theoretically, very unlikely to default (as remained the case even after 2008). They could, therefore, on such grounds be treated as AAA and as virtually riskless, with a very low (or zero) risk weighting. But in a crisis, when correlations all tend to go to unity, no one will still feel so confident about estimating their future probability of default (PD), and their (mark-to-market) value may decline sharply. Since all banks will be led, in part by the regulations themselves, to be holding large amounts of such AAA assets, the effect on the valuations of the trading book, (plus guesses about their banking book), and hence on their profitability and perceived solvency, of such falls in value may well be systemically much more severe than falls in value, and non-performance (and default), of supposedly much riskier assets against which the banks have put protective capital in place. A problem of micro-prudential regulation is that it, semi-consciously, tends to force all banks to hold roughly similar portfolios; one aim of regulation always having been to bring all banks into line with the standards of the ‘best’ banks. This is fine so long as the adverse shocks are ‘small’. When, however, the adverse shocks are big enough to challenge the prior estimates of PD and valuations of previously supposedly-safe assets, this can lead to even greater contagion and a more precipitate collapse.

The next point is that the current measurements of risk, via VaR, and of profitability, via mark-to-market valuations, tend to be highly procyclical. During periods of upwards trending asset prices, variances and co-variances tend to go down; correlations fall; volatility as measured in various ways appears to be low.
The greater reliance on VaRs and bank-based measures of risk, in Basel II than in Basel I, and the increasing use of mark-to-market valuation were bound to make the whole system much more procyclical than had the previous more rough and ready regulatory approach. This was not because the private sector metrics were intentionally malign or intended to ‘game’ the system. It is rather that the regulators failed to realise that a procedure developed for private sector commercial purposes was inappropriate for public and social regulatory needs. It was one of the boasts of the authors of Basel II that they had brought regulatory capital requirements into line with the economic capital requirements that banks would want to hold on their own account. How misguided can one get?

This was then the context from which Basel II emerged. It sought to correct the distortions to the patterns of credit expansion that Basel I had engendered, primarily by adjusting regulatory requirements to align with the risk metrics developed in the private sector for their own (perfectly proper) purposes. While it did do some good work, e.g. in clarifying the relationship between off- and on-balance sheet requirements, it not only increased the complexity of regulation, now a rising complaint, but it also made the whole system much more procyclical and fragile in a way that was difficult, even, perhaps especially, for regulators to observe. Most banking systems seemed highly profitable, and on a Basel II RWA basis well capitalised in the early summer of 2007, (including Northern Rock). Some economists, White at the BIS, Ragu Rajan, and several of us at the Financial Markets Group (2001) worried that the inherent fragility of the system was being obscured by the procyclicality of Basel II, but, given the temper of the times, nothing was, or probably could have been, done.

Basel II focussed on the redefinition of asset risk weighting. It did not seek to revisit the definitions or the numbers (i.e. 4% Tier 1, 8% of Tier 1 and 2) of capital contained in Basel I. Nor did it attempt to reopen the question of liquidity requirements that had been put to one side by the BCBS in the mid-1980s. Getting agreement on the definition(s) of capital, as the basis of CARs, had been, perhaps, the most difficult aspect of Basel I. At the start of the new millennium there seemed little need, and there was no stomach, in the BCBS to reopen that issue. But, behind the scenes and mostly out of sight, the quality of the capital, notably in Tier 1, was being eroded. Banks came up with all kinds of schemes for ‘hybrid’ capital, partially equity-like and partially debt-like, and tried, with varying degrees of success, to get regulators to accept these for Tier 1 and 2. The available holdings of Tangible Core Tier 1 equity fell, in some cases, well below 4%. The simple leverage ratios in Europe, relating such equity to total assets rose in many cases to over 40 to 1, and in some cases to over 50 to 1. It would not take much in the shape of declines in asset values to wipe out the available stock of loss-absorbing equity. At the time, pre 2008, most regulators did not realize
this. With the benefit of hindsight the German position, prior to Basel I, seeking to focus on a much stricter and purer definition of capital, seems to have been eminently justified, and we have gone back to that in the course of Basel III. Bankers were probably more aware of the inherent fragility of the system than the regulators, hence the early closure of the unsecured interbank markets in 2008. Where they differed amongst themselves were between those who thought, and acted on the supposition, that the downturn in the housing and mortgage markets were temporary and reversible (and these tended to fail), and those who took the opposite view and properly hedged the systemic housing risk.

Nor did Basel II attempt to reopen the issue of liquidity requirements. During these years, in most countries, holdings of lower-yielding, but more liquid assets, mostly public sector bonds were being run off and being replaced by less-liquid mortgage-backed assets. Market liquidity was being replaced by funding liquidity, and ‘sticky’ deposit funding by more volatile and, effectively shorter-dated, wholesale market funding. The extent of (underlying) maturity mismatch was increasing. The general presumption was that, so long as macro-economic stability was maintained, by the achievement of inflation targets, and so long as bank solvency was assured, by adherence to the Basel II CAR targets, that the wholesale markets would always be open for the provision of liquidity to banks in need of it.

Unfortunately successful achievement of inflation targets did not prevent a bust in the housing market in several countries. Despite prior adherence to Basel II, the fragility of the CARs in practice did not mean that banks remained confident of each other’s solvency, and as a consequence the wholesale markets for liquidity dried up. The crisis began.

During the decade leading up to the crisis, the arena where regulatory issues were hammered out remained the BCBS, with European directives adopted subsequently in line with the decisions previously taken there. But the increasingly global scope of BCBS regulatory rulings meant that membership had to be diluted, weakening somewhat the majority of the European members. The BIS, along with the BCBS, was becoming global in character and membership, rather than just G10 (and primarily European) based. Moreover, market finance was in several countries, especially in the USA, growing in importance relative to bank finance. Bank regulation came under the aegis of Central Banks; capital market regulation did not; and the regulation of insurance was yet another separate field. Whereas the interaction between bank regulators and insurance regulators has been distant, and, possibly as a consequence, quite amicable, the relationship between bank and capital market regulators has been much closer, but possibly as a result more fractious, with both sides often arguing over turf. To
try to provide oversight and unity, this led to the establishment of the Financial Stability Board, senior to BCBS, IOSCO and IAIS in April 2009.\footnote{The FSB was established in April 2009 as the successor to the Financial Stability Forum (FSF). Their website features documents and statements of both the FSF and the FSB. The FSF was founded in 1999 by the G7 Finance Ministers and Central Bank Governors following recommendations by Hans Tietmeyer, President of the Deutsche Bundesbank. G7 Ministers and Governors had commissioned Dr Tietmeyer to recommend new structures for enhancing cooperation among the various national and international supervisory bodies and international financial institutions so as to promote stability in the international financial system. He called for the creation of a Financial Stability Forum. G7 Ministers and Governors endorsed the creation of the FSF at a meeting in Bonn in February 1999.}

7.4. **CRISIS AND THEREAFTER**

Prior to 2007, banks, property developers and individuals levered themselves up to the hilt to take advantage of the continuing rise in property values. This was encouraged and abetted in several ways by governments, notably in the USA where constraints on the ability of Fannie Mae and Freddie Mac to support lower quality loans were not only lifted but reversed, in effect requiring them to support more such lending. Governments in countries with housing booms, such as the USA, UK, Ireland and Spain, treated the resultant higher tax receipts not as temporary windfalls, but as permanent additions to revenue, and expanded expenditures to match. Credit rating agencies in the USA, basing their models on US housing data since the 1950s, during which time there had never been a significant nation-wide downturn in housing prices, extrapolated this comfortable past into the future, and so gave mortgage based securities AAA ratings, and thereby enhanced the enthusiasm of banks facing a risk-weighted CAR to buy them. Banks in countries without a housing boom of their own (such as Germany and Austria) made up for their disadvantage by buying large volumes of such Mortgage Backed Securities (MBS) from banks (and countries) with such a boom. There is a myth developing that the financial crisis was caused by investment banks (‘casino’ banks) betting, via proprietary trading, on complex derivative instruments. It was not. Lehman’s derivative trading was profitable. Its downfall was caused by its excessive long position on MBS. Mortgage lending is part of the bread and butter (retail) part of banking. It was bad retail banking (Northern Rock, HBoS, Anglo Irish) that was the problem. Macro-economists, notably at the Bank of England, frequently sang a similar Panglossian tune. There was nothing dangerous about the boom in housing prices. It was just a reflection of the low real interest rates, it was argued. By raising house prices relative to the price at which houses were originally bought, via a mortgage, it raises house owner equity, and thereby makes them safer. There was no wealth effect from higher house prices.
Economists take a particular pleasure in demolishing common beliefs, in this case the standard dinner-party view (in the decade up till 2007) that consumption was buoyed up massively by a wealth effect from housing prices. And in certain circumstances they are correct. Assume that new buyers have to buy their house entirely out of their own saved funds, and that existing house owners know the date of their death and can borrow to consume against their house, so that on death their borrowing is exactly repaid against the current value of their home. If the ratio of prospective buyers to existing householders is constant, the wealth effect out of rising house prices is zero. If the ratio of new buyers rises, the wealth effect could become negative, and house prices are likely to rise more when that ratio rises.

Let us, however, change the assumptions, and allow new buyers to borrow 100% of the value of the house (an LTV of 100%). They do not need to save in order to buy. Yes, but equally the existing house owner cannot use the equity in his house in order to borrow and consume, since his house is already fully mortgaged. So has nothing changed? In fact it has. Previously when house prices increased, the need for the new buyer to save more offset the benefit to the existing house owner. Now, assuming that expectations of future house price changes are not regressive, with 100% loan to value ratios, the rise in house prices leaves the new buyer unaffected (indeed better placed if expectations are extrapolative) while the existing house owner can borrow, and consume more against her higher equity. Thus a rise in LTV has a triple whammy. It brings more buyers into the housing market, thereby raising housing prices and pushes the system into a situation whereby increasing housing prices have a strong wealth effect. Of course, declining LTVs, which became general after a downturn in the housing market and the subsequent financial crisis, have the reverse effect.

Moreover, in the course of a major (housing) depression, the authorities are caught in a bind. If they allow foreclosures to continue when borrowers cannot pay, the downwards spiral of housing prices will accelerate. But, if they protect mortgage borrowers from eviction, as in Spain (and to some extent Ireland) recently, there is a threat of a snowball of non-performing loans (NPLs), which would endanger the solvency of the banking system. If ever there was a case for forbearance and book-value (i.e. not mark-to-market) accounting in banks, this is probably it (as has been so far carried out surreptitiously but successfully in the UK).

What is remarkable in Michael Lewis’ book, *The Big Short*, is that most of those who could see the growing probability of a sharp reversal in the housing market were loners, people who were immune from conventional wisdom, and tried to think everything out for themselves, from first principles. In contrast, the general view, up until 2006/7, was that housing prices would generally rise faster than goods and services prices, and at worst might stagnate for a few years. If so, your
house was, indeed, your piggy-bank, and the sooner you got onto the housing ladder, the better.

However, the resultant rise in housing prices, often fuelled by financial liberalisation (and rising LTVs), stimulated supply (except in the UK where restrictive planning laws held sway). The share of construction (including real estate services) rose considerably, in the USA from 16.4% in 1995 to 17.4% in 2006; in Spain from 25.4% to 28.2% in those same years; and in Ireland, (not including real estate services), from 8.7% to 9.9% in those same years. Eventually supply began to overtake demand, and from late 2006 onwards, house prices in certain parts of the USA began to decline.

But the weaker parts of the US mortgage market, notably sub-prime, were predicated on an assumption of steadily rising housing prices, and made perfect sense in such a context. When housing prices began to decline instead, such borrowers could no longer refinance on steadily better terms and instead defaulted. The resulting foreclosures then reinforced the downwards housing price spiral. All this led to upwards revisions of expectations of PDs on MBS, and downwards shifts in prices of such securitised assets. Uncertainty grew about the proper valuation of such assets, and the ‘marks’, or valuations, made by the various banks. Since such banks, and other informed investors, knew, partly from their own experience, how thinly most other banks were capitalised with loss-absorbing equity, in the face of a significant price decline in a major asset class, they began to pull out their funds from wholesale markets (the run on the repo). This reduced the liquidity of the banks most at risk. In so far as they then tried to sell MBS on the market, this just further decreased their price (fire sales), thereby giving an additional twist to the contagious downturn. As noted earlier, the banks had previously divested themselves of asset market liquid assets that they could use instead of funding liquidity, when the latter dried up.

So, the banks turned to their Central Banks for help, as usual claiming that this was simply an (unjustified) liquidity shortage, and their solvency remained strong, (as was then correct on a backwards-looking basis, but usually not so on an informed forwards-looking basis, which was why the informed investors were fleeing!) Many Central Bankers found it hard to see what the fuss was about, having been led by the mark-to-market accounting values in mid 2007 to believe that their banks were so flush with profits and capital as to be in an unusually strong position. But their metier is to provide liquidity support when their banking and financial system needs it, and they did so with more or less grace, least in the Bank of England, fretting about moral hazard, and most in the ECB.

The provision of liquidity, in mid/late 2007, saved the day temporarily, but did not arrest the continuing slide in the price of housing and, hence, of mortgage-related securities. This began to bring about a series of failures in those institu-
tions combining greater exposure to such MBS with a thinner equity buffer, first Bear Stearns’ acquisition by JP Morgan Chase was completed in May (after receiving liquidity support by FRB in March) and then Fannie Mae and Freddie Mac in September 2008. These were not forced into closure and liquidation, but supported in a variety of ways, leading most observers to expect similar support in future cases.

But such support also led to severe criticism, citing ‘moral hazard’, the benefits of penalising failure, Schumpeterian creative destruction, inappropriate use of taxpayer funds, invalid use of Central Bank powers, etc. So, when the next such case came along, Lehman Bros, on 15 September 2008, and the other big banks did not, or could not, take over (its losses), Secretary of the Treasury, Hank Paulson, claimed that he had no mandate to use taxpayer funds to rescue it, and that it would have to be closed and liquidated. Although the decision is understandable, it is possibly the single worst economic choice made, at least in modern times. Partly because there was no proper procedure for such a massive liquidation (notably of Lehman’s London subsidiary), and partly because the decision was so contrary to prior expectations and left everyone uncertain of the new ground-rules, the result of the Lehman failure was chaotic and disastrous.

If a utility such as a water, gas or railway company goes bankrupt, the real assets of such a company are not sold for scrap. They remain in place, and are run in the last resort by the government, if no private sector buyer can be found. Since the assets of a bank are its human capital, information and know-how, liquidation is the equivalent of selling the gas mains, or railway tracks as scrap metal; in short a silly idea. As with utilities, the management, shareholders, and a selection of other creditors should lose out, but the bank or at least the better, salvageable, parts of it should continue.

Be that as it may, the economic disruption attendant on the Lehman failure was so dramatic (and the memory of what happened in 1929-33 taken as a warning) that any further unravelling of the financial system had to be prevented. This began with the rescue of AIG. Since AIG was brought down by its sale of credit default swaps (CDS), this could be labelled as betting on complex derivatives, but from another view it was no more than a concentration of credit risk, a standard component of banking/financial failures down the years.

What then happened in October 2008, following a British initiative, probably emanating from the Bank of England, but for which the then Prime Minister, Gordon Brown, took the credit, was that the public sector in each country stepped behind all its large banks in all the major developed countries, by injecting equity funds for recapitalisation, by guaranteeing debt repayment, and by the provision of additional liquidity on beneficial easy terms. It is certainly arguable that the terms of such assistance were in some cases made too comfortable for
bank managers, shareholders and creditors, but overall it was probably the best,
most efficient, use of public funds that can be imagined. The alternative counter-
factual of allowing a contagious, cumulative collapse of the financial and banking
system would have been horrendous. Chapter 12 of this volume handles the sub-
ject of financial crises.

But that support was extremely expensive, especially in countries which had
combined a housing boom with banks which were large in comparison with the
economy of the home country. Ireland and the UK were leading examples, but
Spain, Iceland, Switzerland and even the United States had some of the same
features. Especially in countries which did not have their own currency, and
command over their own policies, the rise in government debt, partly occasioned
by the cost of bank bail out, began to threaten their solvency, since the standard
remedies for excessive public sector debt, i.e. low interest rates, devaluation and
inflation, (and to a lesser extent financial repression) were no longer open to
them. At the same time, but for rather different reasons, the debt/GDP ratios and
concerns about public sector solvency rose in other peripheral countries, Greece,
Cyprus, Portugal and Italy.

Banks are, in almost all countries, ultimately reliant on the background support
of their own government. Their liquid assets largely take the form of claims on
their own government. In the last resort, recapitalisation will involve government
help. So, while weak banks can, and do, exist in countries with financially strong
governments, it is much harder to envisage strong banks in countries with finan-
cially weak governments. Thus the financial weakness of the governments fed
back into a weakening of banks in those same countries. Bank credit expansion
then declined even more, thereby weakening those economies, and hence tax
receipts further. This was a key feature of the self-amplifying doom-loop, between
government and banks, especially in the Eurozone countries, that was meant to
be arrested by the move to an EU Banking Union, which will be discussed in the
final section of this chapter.

Despite (my claim that) bank recapitalisation, to prevent a financial melt-down,
was amongst the best possible uses of public funds, banks became seen not only
as too big and expensive to save, but also as too politically unpopular to save.

Such unpopularity derived from two interrelated sources. First, the remuneration,
especially the bonuses, of bankers, especially investment bankers, appeared
obscenely high relative to ordinary professional salaries. During the ‘good’ years
this could, perhaps12, be explained, and/or excused, as a return to risk manage-

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12 Why did remuneration in (investment) banking rise so high? A difficult question. My own preferred answer is
that such remuneration ultimately depended on the preferences of those in control of banks, i.e. the share-
holders. Given the limited liability of such shareholders, they benefited from banks taking on extra risk. The
form of the high remuneration was a semi-conscious inducement to bankers to assume more risk.
ment. But when such risk management patently failed, the remuneration (and bonuses) did not seem to decline commensurately. Hence a bank ‘bail-out’ was widely seen as a transfer from (poorer) taxpayer to (richer) banker, and resented as such.

The second reason for the unpopularity of bank bail-outs was its portrayal as a consequence of bad behaviour by the banks themselves, for which the rest of the economic community had no responsibility and about which they had no knowledge. Thus, it was suggested, banks failed because they took large (proprietary) bets on complex instruments (often at the expense of gullible clients), using High Frequency Trading with unimaginably detailed computer codes, etc., etc. They often also rigged the markets in their own favour (LIBOR). And they did all this on the basis of our deposits, and, if the bet went wrong, on the basis of taxpayer support.

As we all know such bad behaviour certainly was far too prevalent. The list of rogue traders grows longer. Clients have been encouraged to take on financial positions that benefit the intermediary (or its agent) rather than the client. The profit of the intermediary, or its agent/employee, is put before that of the client, at times illegally so (LIBOR again). All this is sadly true.

But (my claim is that) none of this had much to do with the financial crisis. That crisis was due to a bet, but a bet that housing prices would continue to rise, or at least not fall sharply. Most members of the economic community were complicit in that, authorities, regulators, economists, the personal sector, the construction industry, as well as the banks. And most sectors, including the public sector, persons, property, (monoline) insurance, as well as banks took on too much debt (high leverage) often in too concentrated a fashion (e.g. AIG, UBS).

In part because of a basic (and sometimes wilful) misinterpretation of the causes of the crisis, and also because the exaggerated salaries in banks mostly went to the investment banking arm of the bank, a dichotomy has developed in the public discourse between the supposedly ‘bad’ investment (or ‘casino’) bank and the assumed ‘good’ retail (or ‘utility’) bank. The idea is that investment bankers do little but gamble with funds provided to them by the ‘little man’. This is, of course, a travesty. This is not the place to describe in any detail what an investment bank does, but its clients are different, i.e. governments, large institutions in the public, private and financial sectors and a few rich individuals, and its work is largely to act as gate-keeper and facilitator to wholesale financial and capital markets for all the large institutions who use such markets.

Be that as it may, the viewpoint that the crisis was, in some large part, caused by the bad behaviour of investment bankers has not only hardened political insistence on limiting the scale of future public sector support, but has also influenced
the way in which that demand should be achieved via structural change and legislation. In particular this has resulted in proposals (e.g. Vickers and Liikanen) to limit such support to certain restricted forms of banking activity, i.e. retail banking, in certain limited geographical areas, i.e. the home country or the EU, where preference for one’s own country over other EU members is not allowed. Even within the EU, home authorities are encouraging their own banks to lend primarily in the home country, whereas host countries want to prevent host-country deposits from exceeding local lending. This route leads towards the re-nationalisation and Balkan fragmentation of banking, and a withdrawal from the previous global financial system.

Moreover, although restricting public sector support just to the retail part of banks may satisfy the current political imperative, it is far from clear that it will meet the economic objectives of preventing future contagious financial crisis. Lehman Bros was a pure investment bank. Investment banks are far more interconnected, for example via wholesale financial markets, with other banks, other markets, other financial institutions, etc., than retail banks. There are likely to be more economic externalities consequential on the failure of an investment bank, than of a retail bank. It is arguable that, to avoid economic disruption, investment banks should be supported and saved, whereas retail banks could be more easily closed, with the bad parts liquidated and the good parts transferred elsewhere.

Ring-fencing in some form, à la Vickers and Liikanen, is the leading contender for structural change. There are, however, other versions of this, such as the Volcker rules, though the definitions of what trading activities need to be put in a separate subsidiary, and how one can distinguish trading on one’s own account from market-making on behalf of clients, remain fuzzy. There are a wide range of other proposals. Thus if banks are too big to fail, (or alternatively too big to manage effectively), then just make them smaller? But ‘big’ in relation to what? Must small countries prevent local banks becoming cross-border banks. Must all large cross-border banks be based in the USA, China or Japan? Can the EU only afford large cross-border banks if, and when, a full Banking Union is established? Anyhow, the record of avoiding crises in states where banking was primarily done by many small (unit) banks has not been good (UK before 1850, USA relative to Canada, etc.). Contagious failure is even more common amongst weak, similar, small banks.

One common element amongst banking (financial) failures has been the presence, and extent, of maturity mismatch, whereby depositors, and other creditors, can withdraw funds from the bank before the bank can realise the value of assets, or only at a fire-sale loss. There are several potential measures to lessen the dangers arising from such maturity mismatch. The more extreme forms seek to ban it altogether. Narrow banking, and its more comprehensive version in the Chicago
Plan Revisited (Benes and Kumhof (2012)), seek to abolish maturity mismatch by legislative fiat. In this Plan the private sector can only offer zero-yielding (probably negative yielding, to offset running costs) transactions balances, or much longer-dated interest-bearing debt, (with a duration related to that of the assets), (or mutual-fund type equity). Since many investors seek short-dated, interest bearing assets, they would presumably switch towards Treasury Bills. In part the purpose of the Chicago Plan is, indeed, to shift financing channels (e.g. money creation) back from the private to the public sector.

While such more radical plans have remained largely within the confines of the academic community, the more traditional method of restraining maturity-mismatch risk had been via cash and liquidity ratios. In the previous sections of this chapter, the reasons for the demise of such liquidity requirements in the 1970s and 1980s were spelt out. When it became obvious, after the financial crisis had struck, that adherence to required CARs, i.e. to Basel II, did not guarantee access to continuing wholesale financial markets, attention has turned back to liquidity ratios, notably in the guise of an LCR (Liquidity Coverage Ratio) and an NSFR (Net Stable Funding Ratio).

There are, however, two problems with all such liquidity ratios. The first is that a ratio which has to be maintained at all times, if only out of fear of reputational damage, is almost by definition not usable, and hence not liquid. A liquidity requirement is an oxymoron. Our regulators have been slow to recognise this problem or to devise a method that encourages banks to maintain a ‘desirable’ level of liquid assets in normal times, but to fall temporarily below it when unusual and unforeseen net outflows occur. A pre-arranged ladder of sanctions for liquidity shortfall might be desirable.

The second problem is that the requirement to hold more lower-yielding liquid assets both substitutes for, and raises the required (to meet the bank’s objective) spread on, less liquid bank lending to the private sector. So the more severe the proposed LCR/NSFR will be, the greater the cost and the less the efficiency of bank intermediation. Some, for example Willem Buiter, have argued that, since the Central Bank can buy, or lend against, any asset, the whole notion of requiring liquidity ratios is otiose. While in some senses that is true, Central Banks do not like being put in a position of having suddenly to deal with a run caused by maturity mismatch, or equally to replace dysfunctional wholesale financial markets by having to expand their own balance sheet. Thus liquidity ratios can also be seen as protective devices for Central Banks.

Except in some very rare cases when liquidity shortages are caused by operational/administrative problems, e.g. computer malfunction, failures of clearing

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13 See also Chapter 9 in this Volume.
systems, etc., the reason why a bank cannot borrow enough (in wholesale markets) to meet its due debts is because its potential lending counterparties think that there is some probability that they will not get repaid. The estimated PD that would provoke a run of (unsecured) creditors can be small, since the cost of not doing (or not rolling over) the investment is also very small.

So the main protection, both against liquidity shortages, against bank failure and against the need to use taxpayer funds in support, has to be the maintenance of sufficient loss-absorbing bank funds to make default totally improbable. The foremost lesson of the financial crisis was, therefore, that bank capital buffers were too exiguous. The main purpose of Basel III has, as a result, been to reinforce and augment banks’ CARs. It has done so in four main ways. The first has been to focus on a narrower and purer definition of equity capital, as the Germans had argued for in the first place back in 1987. The second has been to require considerably higher ratios. The third has been to be much tougher on some risk weightings, notably of assets held in banks’ trading books. The fourth has involved getting started in devising a ladder of sanctions as equity capital falls towards the 4½% minimum level in the shape of a ‘conservation range’ when banks hold between 7% and 4½% of core tangible Tier 1 equity; when in this range constraints are placed on banks’ ability to pay out money to shareholders in dividends or buy-backs and in (extra) bonuses to senior staff.

While this is all to the good, many (academic) observers see some remaining, serious flaws. First, despite their manifold flaws, the focus remains on relating capital to risk-weighted assets, rather than to a simpler leverage ratio to total assets. There is now also to be some reliance on such a simpler ratio, but only as a backstop with a permissive quantification, 33 to 1. I would rather reverse the emphasis, using the simpler leverage ratio as the main control, perhaps at 20 to 1, but also employing a RWA measure as a back-stop to avoid attempts to get around the control by moving into higher risk/higher yield asset categories.

The second main problem, at least from the banks’ viewpoint, is that the proposals for augmenting CARs never seem to come to any final conclusion. Ideas for strengthening CARs, by raising equity ratios, by requiring (high or low trigger) CoCos or contractually bail-inable bonds in addition to the equity, continue relentlessly. The banks face extreme regulatory uncertainty. After a financial crisis of such magnitude this is probably inevitable, and, given the bad odour of some banking behaviour, such complaints will not be treated with much respect. Nevertheless it is quite hard to operate when the framework is in a constant state of flux.

The third, and most important, has been a failure to distinguish clearly enough between the desired equilibrium end state for CARs and the dynamic process for moving in that direction. Almost all (financial) economists agree that in the
optimal equilibrium state banks should have a much higher equity ratio, perhaps 20% of RWA or 12% of total assets, though many of us would want banks to be able to drop below this (counter-cyclically) at times of pressure, perhaps along a ladder of sanctions. The extra benefit in protection against default, contagion and crisis would outweigh the relatively minor increase (once in equilibrium) in the costs of intermediation. Even if the Modigliani-Miller theorem only holds partially, it can be shown that this remains the case.

The problem lies in getting there. Shareholders own, and ultimately control. They are naturally primarily interested in their own return, the return on equity (RoE). Bank managers know who is boss, and, being given equity bonuses, are also large shareholders. So RoE is the focus of their attention. Raising new equity dilutes RoE, and the benefit largely goes to the other debt holders, especially at times of low market (to book) values and large ‘debt overhang’. Bank boards will, therefore, not issue more new equity now unless they have absolutely no alternative, so an announced new issue becomes an even worse signal of weakness.

Against this background setting a higher capital adequacy ratio will simply enforce deleveraging of assets. Admittedly beforehand such leverage was excessive, so some deleveraging may be anyhow desirable. Allowing a lengthy period before such higher ratios need to be attained just slows up the process. Almost all governments are putting pressure on their own headquartered banks not to cut back on credit creation in their own countries. So this process strongly reinforces the reverse fragmentation of banking systems away from a global or regional (European) framework back into the segregated national systems from which they had emerged in the 1970s and 1980s.

The Americans have managed the recapitalisation of their banking system better than the Europeans. What is needed is a ‘stress’ test to assess the appropriate amount (level) of equity capital, conditional on the total (and risk-weighting) amount of assets at that (stress test) point of time. Then, incentives have to be put in place to induce each bank to raise such new equity, with the necessary proviso that, if equity capital fails to rise enough, the public sector will forcibly inject new equity on terms unfavourable to existing shareholders. The ESM could play such a role, at least to some extent, but whether it would do so has yet to be seen. Beyond that minimum level of equity, limitations on bank pay-outs to shareholders and in bonuses to senior managers could be used both as an incentive and as a means of bringing bank equity up to the desired level.
7.5. **Where do we go from Here?**

From 1945 until the late 1960s/early 1970s financial and banking systems were national in character. Although there were commonly shared ideas, regulation and supervision were undertaken separately in each country. Such segmentation then broke down under the influence of the global euro-dollar market, the abandonment of exchange controls and the development of IT. The separate national systems then transformed into a cross-border, global financial system. Regulation also became, to some extent, global under the aegis of the BCBS, but in truth the BCBS was dominated by the Europeans because of their numerical majority. Enforcement of such regulation and supervision, however, remained strictly national, partly because the BCBS and FSB did not feel constitutionally capable of recommending sanctions for those failing to abide by the proposed regulations. In so far as global supervision was undertaken, it was done by the IMF under their FSAP programme.

Now that global system is under increasing threat. The financial crisis has caused a fragmentation of banking (and to a lesser extent finance) back towards a strong national focus, especially in Europe. It is dubious whether this can, or should, be reversed at the global level. The prior dominance of the BCBS/FSB by the Europeans is disappearing with the rise of Asia. Anyhow the problems in Europe are largely sui generis and specific to the Eurozone, owing to the adoption of a single currency without the associated political and economic infrastructure (and adjustment mechanisms) in place that would allow such a currency system to operate effectively.

There are two main immediate problems. The first is the position and role of the UK. This has become the main financial centre in Europe. But the UK, whilst remaining (unsecurely?) in the EU, is not now, and unlikely in the foreseeable future to become, a member of the Eurozone. The consequence is that there will be continuing differences of approach to regulation and supervision between the ‘outs’ and the ‘ins’, which will shift the geographical balance of advantage and cause perennial frictions. If the intention is to move from a national, or more recently a global, to a more European banking and financial system, do we mean European as in Eurozone or as in EU, or some untidy and complex mixture of the two?

The second, and even more acute, problem is how to distribute the burden of meeting the banking losses that have been, and continue, arising as a result of the financial, and on-going, Eurozone crisis. He who pays the piper calls the tune. If the burden of meeting losses continues to fall solely, or primarily, on the nation state in which that bank is headquartered, then the balkanisation of banking back into segmented national silos will continue, and ‘Banking Union’ will exist in
name only. At the outset of the exercise to establish such a Banking Union, it was widely thought that not only would there be a single supervisory mechanism (SSM) via the ECB, but also that there would be a mechanism put in place, via the ESM, whereby the costs of any necessary recapitalisation would be absorbed at the Eurozone, rather than just at the national level, (plus a common Eurozone based deposit insurance mechanism). Subsequently movement in that direction appears to have gone into reverse. Costs and responsibilities will, it seems, mainly remain national, rather than European (Eurozone). The ‘doom-loop’ between sovereigns and their banks remains unbroken.

The future of Europe, and of its banking system, remains uncertain and at risk.

REFERENCES

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