

RASSEGNA BIBLIOGRAFICA

**Analisi d'opera\***

ALLEN F. - GALE D., *Comparing Financial Systems*, Cambridge (Mass.) - London, MIT Press, 2000.

*This excellent book collects, expands and streamlines the results of over ten years of work by Franklin Allen and Douglas Gale (A&G) on trying to answer a fundamental question: Why do financial systems deeply differ across industrialized countries otherwise enjoying a comparable stage of economic development?*

*Before venturing into the book, it is important to stress that the dismay of the major stock markets since year 2000 has rekindled the interest of academicians and policy makers alike on the issue, whereas previously the book risked been reserved mostly for historians.*

*The debate on the wide differences across financial systems is not a novel one. Rybczynski [16] created the taxonomy whereby financial systems may be grouped into two archetypes: Market-based (MB) versus bank-based (BB) ones. Market-based financial systems are those in which multilateral financial markets — and especially stock markets — are better developed and play a decisive role — in both qualitative and quantitative terms — in allocating funds*

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\* A cura di **Giovanni Ferri**, <g.ferri@dse.uniba.it>, Dipartimento di Scienze Economiche, Università di Bari.

*through the economy. On the contrary, in bank-based financial systems multilateral financial markets are less well developed and banks — through their bilateral relations with depositors and borrowers — have a special role in the allocation of funds.*

*To be sure, Rybczynski's classification did not come out of a vacuum. Rather, it was partly the result of the evolutionary approach to financial systems previously inaugurated by others. Raymond W. Goldsmith, among others, devoted much of his own life to analyse these differences among financial systems, reaching the conclusion that the passage from BB to MB financial systems is basically a "natural evolution"<sup>1</sup>. The keystone behind this approach is a "transactional" view of finance, whereby transaction costs will be minimised by multilateral markets, something that bank intermediation cannot intrinsically achieve. Thus, according to Goldsmith's interpretation, as industrial economies grow more affluent we should observe the deepening of financial markets everywhere together with the weakening in banks' role. Such evolution could be only slowed, but not stopped, by governmental policies disfavouring financial markets.*

*The evolutionary view à la Goldsmith had mixed fortunes because of two main weaknesses. First, it lacked deep analytical foundations in economic theory. Early on, prevailing theories of financial intermediation were mute on the relative efficiency of financial markets versus banks<sup>2</sup>. And, later on, theory moved away from a "transactional" to an "informational" approach<sup>3</sup>, where the substitutability between banks and markets became more questionable. Second, the fact that some bank-based systems in high performing industrial countries, such as Germany and Japan, were quite resistant to change was puzzling to the evolutionary view (Mayer [14]). What's more, in the late 1980s and early 1990s, Germany and Japan — the champions of BB systems — were perceived to be overtaking the USA — the champion of MB systems. Scholars analysing the reasons behind the high-*

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<sup>1</sup> See, for instance, GOLDSMITH R.W. [7] e [8].

<sup>2</sup> See, among others, the influential paper by MODIGLIANI F. - MILLER M. [15].

<sup>3</sup> Consider, e.g., the status of the literature in the early 1990s as represented by BHATTACHARYA S. - THAKOR A.V. [3].

*er long-term growth in Germany and Japan frequently gave credit to the BB financial systems of the two countries<sup>4</sup>.*

*Accordingly, the evolutionary view was rather out of fashion just ten years ago. But the pendulum was to swing the other way shortly. The recovery of high growth in the USA in the second half of the 1990s promoted Goldsmith's view once again. Indeed, the engine behind the new American boom was unanimously identified in the advent of the so called "new economy", a term grouping the pervasive organisational and productive modifications triggered by the intense use of the new information and communication technologies. But, at the same time, it became apparent that the "new economy" was largely intertwined with high reliance on the stock market. First, the perspective of stock market listings provided the basic incentive for venture capital finance, the true engine behind high-tech start-ups<sup>5</sup>. Second, the stock market fuelled the "new economy" frenzy energising it with the swift migration of resources from sun-setting industries.*

*In view of these attainments, the new fashion for deep financial markets rapidly spread even to those countries that had championed bank-based systems. Japan had already moved independently to reform its financial system ahead of the "new economy" rush — deregulation started in the 1970s and took momentum in the 1980s — but its pro-financial market reform peaked in the 1990s with the so called Big Bang<sup>6</sup>. In turn, still in the second half of the 1990s, consensus built in Germany to favour higher reliance on financial markets: Two moves exemplify this mood. First, a heated debate surfaced about the excessive power of banks in the gover-*

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<sup>4</sup> Among others, for Japan HOSHI T. - KASHYAP A. - SCHARFSTEIN D. [11] found a lower cost of dealing with episodes of financial distress for firms entertaining a strong relation with a main bank; for Germany, CABLE T. [6] found that firms with a higher proportion of equity controlled by banks had better performance.

<sup>5</sup> See, for example, HELLMANN T. - PURI M. [9].

<sup>6</sup> According to HOSHI T. - KASHYAP A. [10], the deep and long banking crisis afflicting Japan since the early 1990s — besides its linkages with the cyclical conditions of the Japanese economy — depends on the fact that the transformation from a bank-based to a market-based system was incomplete. Deregulation is also held (partly) responsible for the Japanese asset price bubble of the late 1980s and, thus, as well for the subsequent asset price deflation that has long afflicted Japan through the last decade.

nance of German corporations — partly based on the practice of proxy voting — and steps were taken to curb such power. Second, inspired by the success of the “new economy” and considering the crucial role of stock markets in this respect, Germany upgraded significantly its stock market and even opened up a new segment — the Neuer Markt — specifically listing high-tech start-ups.

Projections of ever growing stock market indices in the USA<sup>7</sup> endured in spite of a growing number of qualified admonitions. Alan Greenspan — Chairman of the Federal Reserve Board — stamped as affected by “irrational exuberance” the US stock market as early as in 1996, when the Dow Jones index reached 6,000 before it would double over the following years. Robert J. Shiller — one of the most respected economists with vast publications on the working of stock markets — documented that US stock markets were becoming much overvalued by any standard<sup>8</sup>: The widely used Price/Earnings ratio — the ratio between the level of the stock index (net of CPI inflation) and the flow of corporate earnings (also net of CPI inflation) — for the S&P500 index of the first 500 US listed industrial corporations, historically fluctuating in the range between 5 and 25, moved from around 15 in 1990 to 27 at the end of 1996 and kept increasing up to 44 at the end of 1999 (graph 1). Such a level of the Price/Earnings ratio was never observed previously in the USA, not even on the verge of the Great Crash of 1929, when it only reached 32 in September 1929.

The turn of the century has brought depression, if not panic, to the US stock market. While affecting also the other indices, the collapse was harshest for the NASDAQ100 high-tech index, plummeting from over 5,100 in April 2000 to some 1,100 recently. In spite of the sizable fall, though, only in the summer of 2002 has the Price/Earnings ratio of the S&P500 returned within its 5-25 historical range. The prick of the stock market bubble has negatively interacted with — if not caused — the current lack of strength of the US economy. After the short lived recession of 2001, the prospects

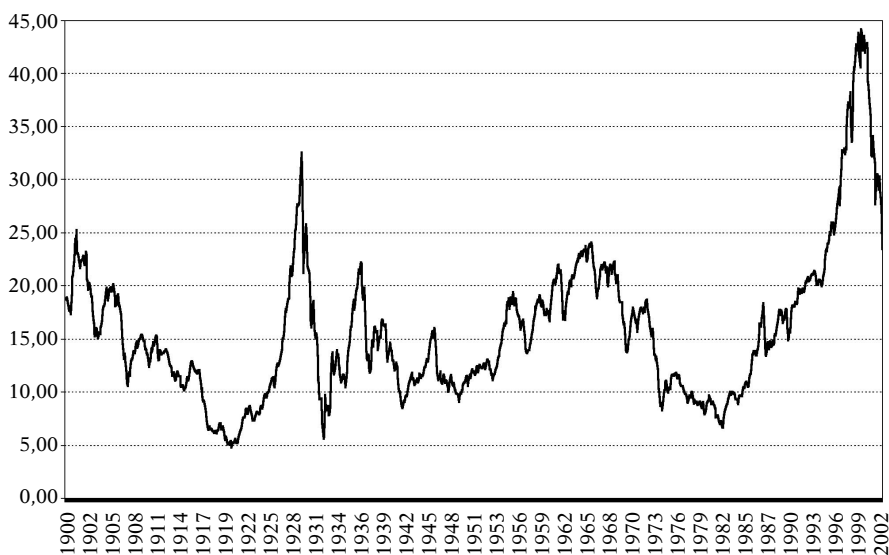
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<sup>7</sup> Just before the prick of the bubble in April 2000 some respected analysts openly forecasted the Dow Jones — then hovering around 12,000 — would soon reach 20,000.

<sup>8</sup> His writings were later collected in SHILLER R.J. [17].

GRAPH 1

PRICE (NET OF CPI INFLATION/EARNINGS  
(NET OF CPI INFLATION) RATIO FOR THE S&P500



Source: data taken from ROBERT J. SHILLER's homepage: <http://www.econ.yale.edu/~shiller>.

of a US macroeconomic recovery were unable to ignite a resurgence of the stock market. On the contrary, stock indices kept falling, saddened by corporate profit collapse and by growing concern on the truthfulness of company statements following the bankruptcy of some large listed companies like Enron, World Com and others. It was discovered that in (some of) these bankruptcies there was fraud on the part of company's management as well as of the associated auditing firm. Legislative and regulatory actions were (and are being) taken to shore up the conflicts of interests and the lack of control that brought to these fraud episodes. Market mood was indeed depressed.

The dismay of the US stock market has been contagious for other markets around the globe that have almost all undergone severe contraction, even where Price/Earnings ratios were already much

lower than in the USA. Since year 2000, in practically all stock markets: (i) investors have fled to safety out of stocks (particularly the high-growth ones); (ii) IPOs have almost disappeared; (iii) privatisations of state owned companies have stalled; (iv) venture capital funds' investments have been drastically cut. The newly launched (in various countries) stock market segments designed to promote high-tech companies have suffered the most. The situation of the Neuer Markt was so bad that, at the end of September 2002, German authorities decided to phase it out and close it by yearend 2003. In Japan, the fall of the Nikkei is hurting banks particularly, to the point that the Bank of Japan has recently announced its willingness to buy Japanese banks' corporate sector shareholdings. Should it go through, such move would be a drive to (temporary) nationalisation.

What is now left of the previous pro-financial market momentum after the burst of the US stock market bubble? It is perhaps too soon to answer this question. Nevertheless, it would be unlikely to predict that, at least for a period, stock markets will boom and substitute banks in industrialised economies. In other words, while a drive to BB systems may not be under way, the evolutionary view à la Goldsmith is experiencing yet another setback. This means that discussion on the structure of financial systems is open again. That's why the book under review is now clearly a "must read" for economists and policy makers at large.

What does A&G's book have to say about these changes in the mood toward financial markets? Indeed, this essay has a lot to say about that. Their fundamental contribution can be synthesized briefly: A&G hold that bank-based and market-based financial systems cannot be considered substitutes and ranked as superior one to the other. This conclusion derives from two distinct reasons. First, intermediaries are complementary to markets and, actually, intermediaries are needed to overcome the informational barriers to participation in markets and thus enable firms and investors to exploit markets effectively. Second, there is a trade-off between the two systems in terms of attaining different objectives.

Specifically, on one hand, MB financial systems excel in securing a fast reallocation of resources across different sectors and, thus,

*at guaranteeing that the allocation of resources is efficient cross-section, at a given moment in time. On the other hand, however, MB financial systems do a relatively poor job at guaranteeing an efficient allocation of resources across time, because they cannot offer insurance against intertemporal risks, such as the risk an investor is forced to sell when asset prices collapse because of changes in market information and investors' beliefs<sup>9</sup>: Financial markets cannot (while intermediaries can) offer insurance against this risk which is essentially non-diversifiable. To the opposite, BB financial systems outperform MB ones in terms of efficient allocation of resources across time but rank second in the cross-section allocation. Thus, the relation between the two systems is best characterized as a trade-off rather than a hierarchical evolutionary process. In order to gain more insight as to the reasons behind this trade-off as well as elucidate its other main contents, we need to go into some of the details in the book.*

*Thus, a large part of the book (the second part) is devoted to the trade-off between competition and insurance. The starting point (Chapter 6) is the specification of the intertemporal smoothing function whereby financial intermediaries can provide investors with insurance against fluctuations in asset values, a function financial markets cannot perform. Empirical evidence suggests economic fluctuations affect investors in MB financial systems more than in BB ones<sup>10</sup>. If, as it happens, markets to insure against the risk of intertemporal macroeconomic shocks are missing, then the risk associated with these shocks is non-diversifiable: It is not possible to eliminate this risk using markets for cross-sectional risk sharing. Accordingly, under these circumstances, markets are unable to provide insurance while unfettered financial intermediaries can meet this de-*

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<sup>9</sup> One important aspect of this intertemporal smoothing is the provision of liquidity to firms at difficult times: This will reduce the risk that illiquid but non-insolvent businesses are forced into bankruptcy.

<sup>10</sup> A&G exemplify this with the oil shocks of the 1970s. The shocks provoked significant drops in share prices and this reduced the long-term consumption of households investing in shares in MB economies while investors in BB economies were largely unaffected since their assets consisted of deposits with banks. This is indeed an example of non-diversifiable risk: The unforeseen oil price upsurge caused highly correlated declines of most shares and investors could not insure against this by diversifying their share portfolio.

*mand for insurance and eliminate the risk through intertemporal smoothing.*

*In cases like the one described, then, financial intermediaries are better than markets. What's more, with A&G, financial markets can actually destroy risk-sharing opportunities. In fact, intertemporal smoothing requires that investors accept lower returns than the market offers in some periods in exchange for higher returns in others. But, if they have to compete with financial markets, financial intermediaries will face disintermediation when the market return is higher than the smoothed return, even though the insurance provided by financial intermediaries would make everyone better off than they would be without it. Thus, unless financial intermediaries can be shielded from competition, they may be unable to offer welfare-improving insurance against fluctuations in market returns. This leads to the question of how much competition is desirable in banking (Chapter 8), where not only efficiency is involved, rather a tension emerges between the goals of competition and stability. In turn, A&G conclude (Chapter 9) that central bank's interventions are welfare improving when they give liquidity to banks and markets to prevent the collapse of asset prices triggered by panic selling.*

*Furthermore, A&G make a strong case (Chapter 7) that, even though markets are superior to financial intermediaries at disseminating information that is needed for efficient decision making, MB systems undergo a free-rider problem: There is no private incentive for anyone to collect information that will immediately become public through the markets. The consequence of this free-rider problem is that, paradoxically, MB systems may deliver under-investment in information. This is a potentially serious problem that may make MB systems vulnerable to fluctuations in asset prices based on investors' beliefs detached from economic fundamentals as well as to bubbles in the stock market<sup>11</sup>.*

*In addition, a further way to distinguish financial markets from financial intermediaries derives from the different type of relationship for parties entering a financial transaction. The relationship*

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<sup>11</sup> For a recent critical overview on the efficiency of financial markets, see e.g. SHLEIFER A. [18].

tends to be intimate in the bilateral relation between a bank and a customer — possibly leading to relationship banking<sup>12</sup> — while it is distant in the multilateral relation between an issuer and the subscribers to its security — once the security is issued and purchased it's very difficult to change its clauses. This difference is important since the intimate bilateral relationship typical of the intermediaries allows easier re-negotiation — i.e. the contract can be adjusted as circumstances change. A&G argue (Chapter 10) that easier re-negotiation may have both pros and cons. On one hand, from a risk-sharing perspective, continuous re-negotiation is desirable as it allows (“putty”) implicit contracts to substitute for writing very complex (“clay”) contracts. On the other hand, from a moral hazard standpoint, making re-negotiation more difficult, financial markets' contracts create a commitment providing an incentive for the agent to make better decisions *ex ante*. This seems to lead to an interesting conclusion. In situations in which idiosyncratic shocks prevail, moral hazard problems may be the most serious concern and the market commitment may be most desirable. On the contrary, easy re-negotiation appears efficient when economies face unanticipated and systemic negative shocks<sup>13</sup>.

The fourth part of the book starts contrasting intermediaries and markets in their catering for diversity of opinion among investors. Here A&G identify (Chapter 13) a clear superiority of the financial markets vis-à-vis the financial intermediaries. In fact, markets allow investors with different opinions to agree to disagree while intermediaries' delegated monitoring forces a compromise that might not satisfy most investors. But allowing for new opinions to emerge is crucial when new productive ideas come out, thus markets have a distinct advantage over intermediaries in key issues, such as the financing of new technologies, as it was clearly the case with the “new economy” boom in the USA.

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<sup>12</sup> See, for instance, BOOT A.W.A. [4].

<sup>13</sup> In this connection, it is interesting to notice the proposal by Ms. Krueger, representing the USA in the top ranks of the International Monetary Fund, to build a new framework to assist countries unable to meet their debt payments to international financial markets. The new framework would basically facilitate re-negotiation (IMF [12]).

Nevertheless, A&G hold that, in general, intermediaries and markets are complementary rather than substitutes. This is the case when financial markets grow overly complex, participation becomes costly and is therefore limited (Chapter 14): Here an important role emerges for intermediaries — via either investor friendly repackaging of complex securities or providing insurance against trading in unfamiliar securities — to supplement markets (Chapter 15). In a sense, A&G stress that intermediaries and markets specialise in different information and believe that “in the end, it is not a question of markets versus intermediaries but rather of markets and intermediaries”.

The book also contains other chapters worth reading, that were not cited above as peripheral to the main theme and also to make our guided tour of the book more concise. The first, mostly narrative, part of the book focuses on a cross-country analysis of the five G-7 countries selected by A&G: France, Germany, Japan, the UK and the USA. A preliminary discussion on the evolution of the national financial systems (Chapter 2) is followed by a somewhat detailed description of the commonality and difference — e.g. the extent to which households are exposed to risks from market change in asset values — in the relationship between institutions and markets (Chapter 3) and by an extensive overview of the different ways to ensure corporate governance (Chapter 4). More analytic Chapter 5 casts the investigation in a set up with incomplete markets just to show that theories ignoring transaction costs, information problems and other frictions are not conducive to explain why financial systems differ across these countries. The third part of the book concentrates on the theory of the firm and the role of the financial system in corporate governance. Much of it debates on the fact that the extent to which firms rely on internal finance is puzzling according to most theories (Chapter 11) and tries to provide a convincing justification considering the firm as a self-organising entity that uses internal capital markets to solve its own incentive problems (Chapter 12).

Among the issues not tackled by A&G two are worth mentioning. First, if MB economies are more unstable — as the “excess volatility” of financial markets more deeply affects investors’ beha-

viour — than *BB* economies, is there a different role for central banks not only as *ex post* liquidity providers but also as *ex ante* market stabilisers? In fact, A&G consider the special role of central banks in *MB* economies to give liquidity to banks and markets to avoid the collapse of asset prices triggered by panic selling. However, they disregard that central banks may have an even more important role *ex ante* in helping escape markets' major misalignments vis-à-vis economic fundamentals. Some hold — but consensus is not unanimous on this<sup>14</sup> — that early monetary policy restrictions are desirable to curb imbalances and prevent the development of stock market bubbles (Borio and Lowe [5]). And, beside that, other instruments are available. For example, if they perceive a bubble is forming central banks can use moral suasion, as Alan Greenspan likely tried to do in 1996 when he coined the term “irrational exuberance”. And, if that fails, margin requirements can probably be raised, as the transcripts of the Board meetings suggest it was discussed at the Federal Reserve.

The second issue involves current changes to banking regulation as defined by the Basel Committee on Banking Supervision. As it was already clear by the time A&G's book was printed<sup>15</sup>, the inspiring principle of the new regulation is that of “marking to market” bank assets, whereby minimum capital requirements for banks will be determined according to borrowers' ratings, either issued by external rating agencies or derived from the banks' own internal rating models. Since the ratings will reflect the borrowers' collateral values rather than their future prospects, as observed by various authors<sup>16</sup>, the new capital requirements could amplify procyclical swings in bank lending. In turn, this could weaken relationship lending and reduce banks' ability to perform their intertemporal smoothing role, as identified by A&G.

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<sup>14</sup> See BERNANKE B.J. - GERTLER M. [2] for an opposing view.

<sup>15</sup> Even though the proposal was finalised later (BASEL COMMITTEE ON BANKING SUPERVISION [1]) the framework of the new regulation was known since 1999.

<sup>16</sup> See, for example, LOWE P. [13].

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