Notes on the role of financing mechanisms in an industrial reconstruction of Europe

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1. Introduction

This paper develops some ideas on how financing mechanisms can play a role in renewing industrial production and restoring economic prosperity in Europe. This is equivalent to asking how development finance can be successfully built – or rebuilt – in Europe. This cannot be built in denial of the historical moment, but in appreciation of its complexity.

We proceed as follows. We first set out the overall challenge of financial-system behavior in Europe (section 2) as a context for this paper's topic. We then follow that with a brief review of some salient national economic statistics. We then describe two successful examples of development finance, one at national scale, one at village scale, exploring the ingredients of success. We then turn specifically to the possibilities for, and constraints on, developmental-finance innovation in the short and medium run. Section 4 focuses on Europe-wide and national-state ideas, section 5 on regional and local ideas. Section 7 concludes.

2. Elements of a functional financial system: the challenge confronting Europe

Ideally, banking systems should avoid breakdown and crisis, and fully support growth and innovation; that is, they should take account of Minskyian threats while exploiting Schumpeterian opportunities.

Many national components of Europe's banking systems have experienced a Minskyian crisis, without recourse to a Minsky-style "big-government/big-bank" recovery. What we have not seen, with the possible exception of Germany, are Schumpeterian banking dynamics. So these three points already define a full financial agenda for Europe and its member nations:

1. Put in place policies that limit speculative financial behavior; that reduce, insofar as possible, the possibility of credit flows that generate unsustainable and ultimately costly asset bubbles in housing, equity, and so on; and that limit the extent of zero-sum behaviors among participants in financial markets, including speculative position-taking in esoteric financial instruments, high-frequency asset-trading games, and so on.
2. Be sure that Europe and its member nations have adequate access to lender-of-last-resort facilities, and to counter-cyclical fiscal measures that will stabilize financial and macroeconomic systems in the wake of adverse shock events.
3. Build the capacity of the European financial system and its sub-components to nurture enterprise creation, job growth, and industrial renaissance.

It is the third of the elements of this agenda – which we might term the Schumpeterian dimension of banking – that concerns us in this paper. Undoubtedly, an adequate reconstruction of European banking systems, whether on a fully national or Europe-wide level, must encompass mechanisms and policies that limit the possibilities of more such meltdowns, and respond to those that happen. Those are points 1 and 2 of the above agenda.

The question is how to strengthen Schumpeterian capacity in Europe, especially under the constraints imposed by the design of the Eurozone itself. Figure 1 provides a visualization of

thinking these constraints from a financial perspective. The "Mundell-Fleming trilemma" is shown at the top of Figure 1.

Immediately below it is a banking-regulation triad, consisting of three elements that a regulator should possess: the capacity to regulate domestic banks, the means to oversea the activities of foreign banks, and lender-of-last-resort (crisis intervention) capacity. Note that the latter is put in close proximity with the "monetary control" element of the Mundell-Fleming trilemma, on the resolution of which it depends; similarly, the control of foreign banks and financial openness are placed next to one another due to their intimate linkage. Below this triad is a banking-behavior triad. An economically functional banking system should, in turn, maintain safety and soundness, provide efficient payments and credit services, and finance public borrowing.

The point of the juxtapositions in Figure 1 is that the outcomes observed for these triads are interlinked with the macrostructure of the economy. For example, China has not permitted financial openness, and thus retained macropolicy control over both its exchange-rate and monetary policies. This has provided with an opportunity to fine-tune its developing banking and bank regulation triads. Brazil is largely financially open, but imposes constraints on the behavior of foreign banks within its markets, again giving it the capacity to shape its banking market without external interference (in its case, by carving out a central role for public banks and for a public development bank).

The situation for European nations, of course, is very different. European nations have sacrificed monetary policy control, of course, in the context of the Mundell-Fleming trilemma; and they are also committed to the "one market" principle – markets opened anywhere in Europe must be similarly open everywhere in Europe. These points, while well known, have important implication for European banking regulation and behavior. In Figure 2, the regulatory elements eliminated in the design of the Eurozone are struck through. Note that bank regulation is hobbled: regulators retain responsibility over domestic banks, but cannot control foreign (European) banks; and they lack lender-of-last resort capacity. To regulate domestic banks tightly will disable them from competing with foreign banks. In consequence, effective regulation is incapacitated (shown in Figure 2 by underlining this lost element of bank regulation). The European crisis, then, in exposing weaknesses in underregulated European banks, led to the erosion of their access to money market borrowing. This in turn left these banks unable to meet credit needs in Europe; and as the crisis deepened, banks' capacity to finance public borrowing was also compromised. In the end, efforts focused on preserving banks as operating entities, even though they were not performing their economic functions within the economy as a whole.

3. The European context: some stylized facts

What development financing initiatives must do, of course, is to facilitate an increase in productive economic activity while not creating more financial-system risks (including the growth of new financial bubbles). "Productive" here can be taken to mean employment-creating; as such the financing in question could involve either start-up or expansion financing or working-capital loans – the former two to stimulate investment, the latter to support expanded production levels. Whether such expanded financing will create excessive additional risks depends on the current situation in Europe. We summarize some salient aspects of this situation with the help of a number of figures that focus (with one exception) on selected Eurozone nations along with the UK (a geographically proximate economy of

comparable size to the larger Eurozone economies, with a neoliberal orientation) and Brazil (also similar in size to the larger Eurozone nations, but with a developmentalist orientation).

Figures 3-5 (drawn from OECD statistics) depict the situation regarding investment expenditure (here using the figures for gross capital formation). Figure 3 shows the percentage growth of EU investment relative to the US, UK, and Brazil. The former three areas show a plunge in the crisis tranche of 2008-09, with very weak recovery thereafter; Brazil's performance is notably better – a more shallow plunge, and a much stronger recovery. Figure 4 demonstrates very similar patterns of investment fluctuation in four

Eurozone nations (including Germany and France), with a somewhat stronger pattern of investment recovery; but in the four southern Eurozone countries (Figure 5), investment was shattered in the crisis tranche and since then (with the partial exception of Italy), has shown no recovery. To what extent is economic activity linked to manufacturing in these nations? Figure 6 (the first of eight figures drawn from the World Bank database) shows that Germany has a uniquely high percentage of its GDP accounted for by manufacturing, with some slippage between 1999 and the present. Brazil comes second, again with some slippage; the other nations – France, Spain, and the UK – show a steady pattern of decline, at percentage levels of manufacturing about half that of Germany.

We next turn to the potential for expanding goods/services production with existing capacity. Figure 7 shows that real consumption expenditure in four Eurozone countries (Germany, France, Spain, and Greece) grew moderately in the pre-crisis 2000s; thereafter, Germany and France maintained moderate growth in the crisis years, while this spending fell off sharply in the UK, Spain, and Greece; after the crisis, every country except Greece, which continued declining, showed low single-digit growth. Real government spending (Figure 8) grew at slightly higher rates in the early 2000s in all the European countries (Greece showed remarkable instability), held on through the 2008-09 crisis tranche, and subsequently remained slightly positive but trended downward (except Greece). The patterns for Brazil show evidence of its consumer boom from 2008 onward (paused in 2009 and then falling off in 2012), with its government's 2010 stimulus program also in evidence).

The next set of figures illustrate some aspects of financial performance. Figure 9 sets out private-sector credit levels relative to GDP. There is clear evidence of the housing bubbles in the UK and Spain, and relatively steady ratios for Germany and France. Brazil's credit/GDP level also shows some growth but is at a lower level than the European countries. Where Brazil does show a significant level of credit relative to GDP is in lending for other users (primarily the public sector, which includes public companies such as Petrobras and Vale); see Figure 10. Non-private-sector credit/GDP ratios are lower in Europe, though Figure 10 has dramatic evidence of the Spanish and UK bank bailouts.

Figure 11 illustrates the deposit-to-GDP levels (UK data is missing); a relatively steady upward trend is shown, with the exception of a rapid ascent in Spain, reflecting cajas' competition for deposits in the context of their nationwide expansion. Figure 12 makes clear that deposit-to-GDP ratios are substantially lower than credit-to-GDP ratios in every nation except Germany. Germany's ratio declines steadily to almost 1-to-1 by 2011 – a reflection of its slow pace of credit expansion and its rising deposit share. The Greek pattern is unstable, reflecting its crisis-prone and unstable banking sector. The other nations' ratios are upward of 1.5:1, reflecting their dependence on borrowed-funds markets to support credit positions.

Finally, Figure 13 illustrates patterns of percentage change in credit growth. There is, once again, evidence of the Spanish and UK housing bubbles – Spanish credit growth peaking at

over 20% in 2004, and UK growth at just under 15% in 2006; in both nations, credit growth has now turned negative. France shows evidence of significant credit growth as well through the 2000s. Brazil's percentage growth in credit through much of the 2000s is remarkable; much of it was channeled to households who were enjoying the benefits of increases in income-transfers to the poor and in minimum-wage levels. Germany stands out for its low rate of credit expansion, with slightly negative credit growth in 2012.

Finally, Figure 14 makes a point about megabanking in Europe and the US. It illustrates the change in the ratio of bank size-to-GDP between 1989 and 2012, for the largest bank in every country shown. The 1989 ratio is normalized to 1.0 for the seven countries shown. The US and UK come in bottom, having expanded to 4 and to 5.8, respectively, by 2012. All the continental European banks have expanded more from their 1989 ratios, with Germany and Spain topping out at 10.2 and 10.1, respectively. The pace of increase was fastest after 2004.

Implications. Beyond demonstrating wide variation in European experience, some common trends emerge. First, Europe as a whole has an investment crisis and is in the midst of a manufacturing decline. Second, with stagnant government and consumer spending, this decline will be furthered by low levels of capacity utilization, deepening stagnation in Europe. Credit levels have grown virtually everywhere, with many European markets heavily dependent on non-deposit liabilities. Megabanks have grown spectacularly in every nation; given the high – but more modest – pace of credit (and deposit) growth, these institutions' growth is due to expanded activity outside of traditional banking activities.

4. Scale, coordination and control, and development financing

Development is of course a plastic concept. It can connote anything from a discovery whose knock-on effects transform all of industry and generate an innovation storm, to the acquisition of new capabilities and income flows by members of formerly impoverished households. We begin by compare two successful development-financing processes that touch these two polar developmental extremes – a development-finance institution aimed at creating and sustaining industrial development for a sovereign nation, and a 'financing-from-below' initiative aimed at encouraging growth in local communal areas. We draw some lessons and then briefly consider why a recent high-profile initiative failed.

A sovereign nation's development bank: There are two outstanding examples of development banks: the German firm KfW, formerly the Kreditanstalt für Wiederaufbau (Reconstruction Credit Institute), founded in 1948 as part of the Marshall Plan; and the Banco Nacional de Desenvolvimento Econômico e Social (Brazilian National Bank for Economic and Social Development, or BNDES). Table 1 from a recent study by Lazzarini *et al*. (2012)[1], which is presented after Figure 13 below, shows that BNDES and KfW are very similar in size. The only domestically-focused development bank that approaches these two in scale is the Korean Development Bank.[2]

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[1] S.G. Lazzarini, A. Musacchio, R. Bandeira-de-Mello, and R.M. Marcon, "What Do Development Banks Do? Evidence from Brazil, 2002-2009," Working Paper, Insper Institute of Education and Research, Sao Paulo, Brazil, April 27, 2012.

[2] The *Financial Times* reported on 28 August 2013 that the Korean Development Bank, which has been targeted for privatization since the IMF's December 1997 stabilization program in Korea, was no longer being considered for privatization. The China Development Bank listed in Table 1 focuses primarily on financing activities outside of China; the role played by BNDES in Brazil is conducted, in a very different, decentralized manner, by the complex of publicly-owned banks in China.

Here we focus on BNDES, as it is a proper development bank and its activities are universally acknowledged as a key factor in Brazil's economic growth. Here is a selective tour through aspects of its history and its success and complications:[3]

- BNDES was founded in 1952 by President Getulio Vargas as one expression of the developmentalist approach that also led to the founding of Petrobras a year later.
- A key enabling condition for these events was the 1948 founding of the United Nations' sponsored ECLAC (the Economic Center on Latin America and the Caribbean), which provided a think tank focusing the ideas of Raul Prebisch, Celso Furtado, Hans Singers and others who spawned ideas about import-substituting industrialization.
- BNDES provided the finance needed to create Petrobras and other state enterprises as infant industries, and to facilitate the founding and growth of numerous other firms.
- Initially BNDES' mission equated development with industrial development; but with the 1990s – in the post-dictatorship period – the bank's mission broadened to include more attention to small-business development and to social development.
- While it is a sizable lender, it is not a bank in that it does not accept deposits; however, it does borrow funds in the market, and maintains a capital-asset ratio consistent with Basel Accord standards.
- It operates as a "universal bank" in that it takes equity positions in Brazilian firms so as to risk-share and to leverage smaller firms' available capital. Initially BNDES carried out this venture-capital role alone; but in 1967 it was joined by Financiadora de Estudos e Projetos (FINEP), which became the main government vehicle for encouraging the nurturing and creation of innovative businesses in Brazil.
- Together with FINEP, BNDES sponsors continuing education programs for its professional staff, and advanced courses in Brazilian universities, aimed at training future employees and refreshing the knowledge set of current employees. Professional staff in Brazil circulate between federal universities, leading public companies (such as Vale, Petrobras, and Banco do Brasil), and government ministries. New employees are recruited via public, competitive exams, with as many as 120 applicants for every available place.
- Public companies in Brazil are required by statute to devote a portion of their earnings (approximately 2%) to education and research programs.
- BNDES, like KfW, provides credit for activities ranging from trade credit to microfinance to equity provision, working capital loans, and so on.
- BNDES accounts for about 10% of all credit outstanding in Brazil; on a flow basis, this percentage is higher; the percentage of all business credit is approximately 25%.
- The prominent place of BNDES in business lending has led recently to public complaints by Brazil's private sector banks that BNDES is too powerful and suppressing the development of private-market lending. However, BNDES has survived these complaints due to its widespread popular and political support; and it should be noted that Brazilian banks' loan-to-asset ratio is less than 40%, among the lowest in the world. The Lazzarini *et al.* study noted above found no evidence of political influence on the allocation of BNDES business credit, and no evidence that

[3] For a comprehensive recent discussion of BNDES activities, see J. Hermann, "Development banks in the financial-liberalization era: the case of BNDES in Brazil," *CEPAL Review* No. 100, April 2010: 189-2003. Hermann shows that BNDES did not knuckle under to the market-led premises of the neoliberal age; to the contrary, it maintained its contrarian position.

BNDES makes "lemon loans" to failing enterprises; see Table 3 from that study, printed below after that study's Table 1.

- BNDES makes loans that target emerging industries in which Brazil's global market share promises to be significant. Examples are cane and ethanol production,[4] and before that ethylene,[5] and most recently, pre-sal oil extraction.
- Some BNDES lending has met massive resistance, including its politically unpopular financing of the Belo Monte dam in the Amazon region and its large loans to support Eike Batista's extended (and now failing) empire.
- The leadership of BNDES is appointed by the Brazilian President. During the regimes of Presidents Lula da Silva and Dilma Rousseff, BNDES has received regular infusions of funds via the Brazilian federal budget. These permitted it to support Brazilian business during the crisis tranche period of 2008-09.

Local development finance: The example chosen here is the Grameen Bank of Bangladesh, with a focus on its early (pre 1992) experience. The reason for this selection is not to hold up the Grameen as a paradigm of development finance in localized communities, as so many have done (including its Nobel-Prize winning founder, Muhammad Yunus), but instead to bring out some seldom-recognized factors in its initial successes. These factors have not been present in many of the subsequent attempts to replicate Grameen's apparently miraculous success. So their transportability to other times and places, and especially the applicability to the European case, has been forcefully challenged, as we shall see.

The textbook-case Grameen Bank operation involves recruiting members in small teams from the very poorest households. Each team undergoes intensive social and entrepreneurial training, and each team member agrees to save regularly on a strict schedule. Most Bank members -- about 87% % -- are women. After a team has built up its savings, one member of the group is chosen for a small loan (a maximum of €5-600 in 2013 prices), which must be repaid with 50 weekly installments. The interest rate on these loans, while non-trivial, is much lower than on other informal-market loans. All members of a borrowing team are equally responsible for repaying a loan made to any one member of that team. This provides the social pressure for success that can overcome the absence of collateral.

This story is held up as an example of how individual initiative, properly supported in even small-scale settings, can overcome immense odds. The implication is that if external constraints – due either to an oppressive local political/religious elite, or to excessive government regulation – can be pushed aside, the pro-democratic market wins. Some other 'bottom-up' programs, such as LETS and 'peer-to-peer' lending, rely on similar arguments.

However, there is another way of interpreting Grameen's success in its early years in rural Bangladesh.[6] That is, its lending model attacked both supply-side and demand-side problems keeping low-income households poor. On the supply side, the Grameen approach made credit for capital accumulation available, despite the absence of collateral, and provided a cushion against high-cost emergency borrowing; on the demand side, the Grameen model boosted

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[4] See "Brazil - BNDES offers U$1.97 billion in credit to revitalize cane and ethanol production," *International Sugar Journal* 115(1370), 2013: p. 82.

[5] See K. Sissell, "Brazil - BNDES offers carrot for streamlining Copesul, Copene," *Chemical Week* 161(12), 1999: p. 16.

[6] These points are elaborated in G. Dymski, "Using Finance to Promote Equitable Development in the United States: Can Grameen Bank be Transplanted?" in *Development, Equity, Poverty*, a volume honoring Dr. Aziz Khan, edited by Anirban Dasgupta, Lopamudra Banerjee, and Riswan Islam. New York: UNDP and Delhi: Macmillan Publishers India Ltd., 2010.

aggregate market demand in the communities it entered. Significant studies by Bangladesh Institute for Development Studies researchers showed that up to half the households in Grameen-participating villages would have Grameen-bank members. So in effect, Grameen membership in many cases broke the power of interlinked credit and labor markets over low-income households, and permitted the gains obtained to be shared locally. It should also be noted that the training- and guidance-heavy Grameen model ran at a budgetary loss; in that early time-period, it received subsidies from foreign donor-organizations and the Bangladeshi government.

The model, of course, went global, with many adaptations. Suffice it to say here that efforts to run profit-maximizing Grameen operations in substantially larger urban areas with adverse economic environments (such as Grameen America's South Bronx location) have had checquered histories, sometimes degenerating into subprime borrowing, and in any case have seen a shift from a focus on social transformation to borrower repayment streams. Bateman and Chang, in a recent paper,[7] argue that microfinance has severe flaws; in addition to the points made here, they argue that it ignores the importance of scale, "helps to deindustrialize and infantilize the local economy", lacks connections to the broader enterprise sector, and ignore the importance of solidarity and local community ownership and control.

Lessons? A structural comparison of BNDES and early-Grameen-Bank experience reveals several factors that facilitated their success: operating at an adequate scale to affect the overall economic dynamics of the market into which they were intervening; a systematic renewal of lending capacity; the ability to implement education/training for staff and clients; planning for and (implicit or explicit) coordination of market activities (at appropriate scales).

From this perspective, we can classify the United States' Community Development Financial Institutions (CDFI) initiative, passed in 1992 in the wake of the Los Angeles riots, as a failed initiative.[8] Specifically, the CDFI initiative was articulated as public support for the provision of credit to community-development entities (often subsidiaries of banks) in markets underserved by banks. After several years, the program expanded to include provision of capital to markets underserved by banks, under the "New Markets" initiative. The program fluctuated in size over the years, but remained too small to impact local, much less, regional or national, lending markets: in its first ten years, $650 million was allocated to 1580 recipient programs. The allocations were not refreshed after initially being made. Technical support assistance was available, but its provision was not coordinated with credit or capital program awards.

Predictably, the program reported some successes, given that it focused on credit-starved areas. However, this program nowhere triggered industrial renaissance. Half the funding for the New Markets capital-market initiative was used for commercial real-estate development. The share of credit-program monies awarded to the 15 largest US bank-holding companies ranged from a high of 60% to a low of 20%. These megabanks, of course, were at the same time fine-tuning the mechanisms of subprime lending. It is clear that this program failed along each of the dimensions identified above – its awards were too small to affect the scale of overall lending, were not renewed, were unconnected from training, and were delinked

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[7] M. Bateman and H-J. Chang, "Microfinance and the Illusion of Development: From Hubris to Nemesis in Thirty Years," *World Economic Review* 1, 2012: 13-36.

[8] See G. Dymski, "Financing Community Development in the U.S.: A Comparison of "War on Poverty" and 1990s Approaches," *Review of Black Political Economy* 36(3-4), September/December 2009: 245-73.

from any planning or coordination process.

5. Development finance in Europe I: EU-wide and nation-state initiatives

We now turn to European policy proposals that can build on the experiences discussed above. Clearly no one formula can apply. There is, first, the diversity of European Community nations' banking and financial institutions and of these institutions' relationships to investment and consumption practices. These relationships, in turn, are conditioned by each nation's history and legal traditions matter for financial institutions' ownership structures, for the responsibilities and options of borrowers and lenders, and for the ecologies of financial instruments that can be created and traded. Another factor is the extent to which businesses and households bring high levels of indebtedness into the current situation; and a fourth, the freedom of action of each national government to initiate or provide support for new or existing programs. The final factor is the extent to which the overall capacity of the Eurozone as a unified economic area can be harnessed.

In this section we presume that the structure of the European Union and of the Maastricht Treaty (as modified in the Treaty of Lisbon) remain substantially in place. The Treaty of Rome that launched the EU as we know it today created the European Investment Bank (EIB) in 1958. One immediate question is whether the EIB can play the kind of role for Europe that BNDES has for Brazil. This immediately raises the question, why is the EIB relatively invisible in European economic development?[9] This is especially pertinent given that EIB is the "world's largest multilateral lending institution" (Robinson 2009; see footnote 6), exceeding the lending volume of the World Bank since 1993.

One possibility, raised by Robinson (2009), is that the EIB is quantitatively important in lending terms, and further is important in policy terms insofar as it makes quantitiatively significant numbers of loans. While this is the case, there are some crucial differences in the modus operandi of EIB and BNDES:

- The BNDES targets loans in areas of key industrial growth for Brazil, whereas the EIB makes it a point to distribute its loans among a wide portfolio of industrial and other activities.
- BNDES is under some political pressure to provide funding for other (neglected) areas of Brazil, and does so based on its overall political calculus. By contrast, under-served areas in the Eurozone, in the southern reaches of the Zone, can only access EIB funds if they co-fund their participation – an impossibility in the current crisis.
- Further, BNDES is under the leadership of a management team that is subject to a unified political leadership. By contrast, EIB is managed by a committee that represents all the European Union member nations. More recently, BNDES has been given the autonomy to deepen its impact on the Brazilian economy's performance. By contrast, the EIB has come under stricter control, with member states being more accountable for the risks being run by its loan-making decisions.

Beyond this, then, is the question of what sort of Europe-wide initiative – using the EIB – would have a chance of being effective in the context of the criteria for success identified above. For the question to be answered is, at what spatial/governance scale is it possible to generate a focused credit-market intervention, linked to strategic guidance and training, and

[9] Nick Robinson, "The European Investment Bank: The EU's Neglected Institution," *Journal of Common Market Studies* 47(3), 2009: 651-73.

to coordination of market activities? This will not be feasible through the EIB as currently configured; and changing the mandate of the EIB would require changes in European Community rules that are perhaps beyond the pale. A possibility, then, would be to have the EIB sponsor the creation of some autonomous national development funds – by funding or co-funding them – that could, in turn, generate the sort of focused industrial activity (in the broadest sense) that may lead to economic renewal in a member-nation. To what extent would it be feasible for the EIB to support funds facilitating economic development at the national level? This is perhaps a legal question, to be resolved by the interpretation or transformation of the relevant laws.

6. Development finance in Europe II: Regional and local development initiatives

If it is not possible to generate a focused, coordinated credit-market intervention at the nation-state level, what about the regional level? The creation of credit-market innovations at the regional or local level is a goal that may be attainable if larger-scale initiatives cannot be launched. But then what alternatives are available for sub-national initiatives?

An alternative approach to CDFIs: Community Development Banks (CDBs). One possibility for regional or local development is to create European or national initiatives for nurturing development financing. This can be done by creating one or more programs that put in place – and then channel loanable funds to (and refresh the flows of such funds) to a dispersed network of institutions for capacitating small-scale development-finance institutions. The central program hub in this network would act as both a source of technical assistance and training, and a regulatory monitor, for the participating CDBs.

One proposal for such a CDB system was proposed to the Clinton Administration by the Levy Economics Institute in 1993.[10] It was not implemented, as the Administration went forward with the less ambitious CDFI program outlined above. However, the CDB proposal overcame some of the key limitations of the CDFI structure. The Levy authors observed that, “the existing financial structure is particularly weak in servicing small and start-up businesses, and in servicing certain consumer groups.” They noted that banks in the community will provide payment services, savings, but not credit facilities, even for 'bankable risks', because of a scale problem. The problem is one of lack of profitability due to size. So the challenge for the CDBs is to be profitable by scaling themselves to fit into this gap. The small businesses in some disadvantage communities, in particular, lack connections (to loan officers) and experience. The key element of this CDB proposal is this:

> “The Federal Bank for Community Development Banks (FBCDB) will be the central bank, … the link with financial markets, the supervising authority for the CDBs. It will provide up to 50% of the equity for the CDBs … [and] be responsib[le] … for the development of professional staff.
> The Federal Bank for Community Development Banks will be where the CDBs hold their reserve and their operating deposits. It will be the correspondent bank for the CDBs… the FBCDB would help finance positions in assets and, in some cases, would take shares in deals arranged by the CDBs. As the CDBs develop a mortgage business, the Federal Bank would be the agency that securitizes these instruments.
> The Federal Bank for Community Development Banks will be started with an initial

[10] See H.P. Minsky, D.B. Papadimitriou, R.J. Phillips, and L.R. Wray, “Community Development Banking: A Proposal to Establish a Nationwide System of Community Development Banks,” *Public Policy Brief No. 3*. Annandale-on-Hudson, NY: Levy Economics Institute of Bard College, 1993.

> investment of $1 billion [up] to $5 billion...
> The FBCDB will match up to $10 million of private investment in each CDB. [It will be] a major investor in each CDB." (Minsky, Papadimitriou, Philips, Wray 1993).

Linked business nurturing: Silicon Valley "angel investors" or San Gabriel Valley ethnobanks. There are, of course, networks of community-based banks in Europe; it is precisely the over-expansion of some of these networks, and their participation in speculative asset-acquisition, that has required deep government intervention in Germany and Spain, to mention the two more notable cases. If it is not feasible to put a FBCDB of the above type in place, an alternative is to nurture the financial capacity of one or more mini-regions that are attracting entrepreneurs. One possibility is to seek out emerging clusters of innovative, technologically adventurous entrepreneurs– that is, the potential Silicon Valley regions. A study of California's prototype indicates that locally-based business banks, together with "angel investors" knowledgeable about technology and willing to risk-share, provided the financial resources for its 'takeoff into growth.'

Another possibility is to look further south in California at the emergence in the 1980s of a network of small-scale "ethnobanks" that emerged at the nexus of a wave of immigration from the East Asian diaspora. This immigration was spatially focused; and it involved influxes of both skilled new residents working in and creating businesses, and of the financial resources they brought with them.[11] More recently, business growth in southern California has involved not just Chinese restaurants in Rosemead, but high-tech ventures as well. These northern and southern California trends are linked via an entrepreneurial/migrant-worker bridge. Saxenian and Sabel (2008) show how Taiwanese working in Silicon Valley returned home to build fabrication and other facilities in Taiwan; and it is clear that this echo-boom is being met by a re-echo-boom, given that so many Taiwanese have established residential roots in southern California.[12] The broader point is that enabling and participating in vibrant exchanges of migrant/immigrant labor and expertise can enhance industrial expansion (in this case, in both the 'core' and 'peripheral' regions, counting Taiwan as 'periphery' in this instance) – if financing facilities exist.

Poverty and development in Northeastern Brazil. A very different model of regional development has been initiated in the historically impoverished northeastern region of Brazil. The Banco do Nordeste (BN), a regional development bank headquartered in Fortaleza, has developed a set of programs to nurture industrial growth that take into account both the existing financial infrastructure and the specific challenges of the region. The financial infrastructure in the Northeast is provided very adequately in the cities by Brazil's large commercial banks (two of which are publicly-owned), but is scarce in smaller cities and absent in towns and the countryside. BN has experimented with a variety of mechanisms for enhancing value flows where money is scarce and/or few people have bank accounts – including the creation of LETS systems. BN has also tried out a range of microfinance programs at different scales. In addition, BN is working with the local federal universities and local farmers to identify methods of enhancing plant propagation to create hardier species, both for subsistence crops and for possible export agricultural products. BN also has a robust system of short-term finance for businesses, and has equity participation in regional start-ups.

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[11] See W. Li, Y. Zhou, G. Dymski, and M. Chee, "Banking on Social Capital in the Era of Globalization: Chinese Ethnobanks in Los Angeles," with *Environment and Planning A*. Vol. 33, 2001: 1923-48.

[12] Annalee Saxenian and Charles Sabel, "Venture Capital in the 'Periphery': The New Argonauts, Global Search, and Local Institution Building," *Economic Geography* 84(4), 2008: 379-94.

BN, the only surviving public regional development bank in Brazil (formed from a merger among previous institutions in the four states of the Northeast), thus concentrates its attention on the multiple challenges of its region, working in both urban and rural settings and both with (relatively) higher-income and impoverished areas; the result is a wide-ranging set of financial tools aimed at feeding into different parts of the Northeast's impoverished but complex economic ecosystem.

Shifting ownership patterns and emerging development finance technologies? Europe is globally famous for some of its experiments in worker-ownership and in cooperative development. At a time when large private banks are unable or unwilling to lend, cooperatives that pool savings and provide working-capital credit might represent a viable form of business stabilization in impacted areas. This is an area in which study of current examples of success and failure is of fundamental importance. Efforts in Mexico, for example, to use the remittances of Mexican migrant workers to enhance commerce and industry in the small villages from which these workers often come have been unsuccessful. The Coop Bank in the UK provides an example to learn from as well.

It would be best to consider these as experiments, part of an ongoing search for methods of mobilizing savings and delivering credit in ways that are consistent with achievable scale in different types of community. The spirit of experimentation would permit efforts to test whether peer-to-peer lending or crowd-funding are feasible vehicles for concentrating financial resources in businesses and in areas where the sparks of industrial renaissance could generate smoke, if not fire. Of course, those likeliest to be enthusiastic about these last-mentioned innovations, the young, have the highest unemployment rates and the lowest asset levels in Europe. So these zones of social financial experimentation should be considered as areas for enterprise and job development, not just funding mechanisms per se.[13]

7. Conclusion

Several factors facilitated the success of otherwise widely-different development-financing institutions: operating at an adequate scale to affect the overall economic dynamics of the market into which they were intervening; a systematic renewal of lending capacity; the ability to implement education/training for staff and clients; planning for and (implicit or explicit) coordination of market activities (at appropriate scales). We might add, the willingness to admit and learn from mistakes. This said, we pass directly to our summary policy proposals:

- If the will to create a politically integrated fiscal union existed, the EIB could be rechartered, linked to the EU budget process, and redesigned along the lines of Brazil's BNDES. Doing this would require some renegotiating economic roles with existing national development banks – the most significant of which is Germany's KfW.
- Short of this solution, the EIB can sponsor the creation of some autonomous national development funds – by funding or co-funding them; this, in turn, could generate the sort of focused industrial activity (in the broadest sense) that may lead to economic renewal in a member-nation.
- If this is not possible, the charter of the EIB should be amended to at least permit member nations to use it to support more focused, coordinated industrial renewal initiatives.

[13] One critical factor in the super-expansion of return-oriented microfinance has been the entry into that venue of hedge funds. It would be important to control any such entry into financial vehicles designed to nurture growth or opportunity for Europeans, to guard against goal displacement.

- Alternatively, a national government could establish a central public-banking entity to provide oversight, expertise, and secondary markets for locally-based banks making loans to businesses in local areas (along the lines of the community-development banking plan developed by Minsky and colleagues at the Levy Institute).
- Another idea is to facilitate an angel-investor network for the creation of business ventures in next-step areas of technological development, possibly supported by a new set of locally-based and locally-focused banks whose mission is business lending.
- The creation of such locally-based and –focused banks can facilitate the flourishing and economic embedding of immigrant communities that link migrant workers and companies with global business networks. These last two initiatives can even feed off each other.
- A regionally-focused development bank like Brazil's Banco do Nordeste could bring multiple instruments and approaches to enhancing enterprise development and financial capacity in areas of Europe with significant levels of poverty.
- Careful study should be given to the expansion potential of pre-existing experiments – especially European ones – in cooperative savings alternatives. Ways of linking these with worker-ownership of firms should be studied and considered.
- Experiments can be carried out with innovative ways of bringing potential lenders together with firms operating without adequate capital or credit, such as peer-to-peer lending and crowdfunding.
- These last two suggestions should be accompanied by careful study from all angles before a deeper shift toward these non-traditional routes to accomplishing traditional banking functions is contemplated.
- Most of the suggestions here build on two (untested) premises. The first is that traditional banking – when shorn of predatory or purely speculative motives – plays a key role in economic reproduction and should be renewed or re-invented. A second premise herein is that virtually every nation's megabanks have shifted into activities that resemble traditional banking activities in some ways, but that are accomplished in ways that make these activities unavailable to customers that "old-fashioned" banks would have serviced and lent to in the normal course of things. How megabanks should be regulated, contained, or redesigned is not taken up here; they might at least help resource some of what is proposed here, either via a transactions tax of some kind or via a mandate to purchase some of the assets generated by new institutions proposed here.

Figure 1: A micro-macro framework for financial structure

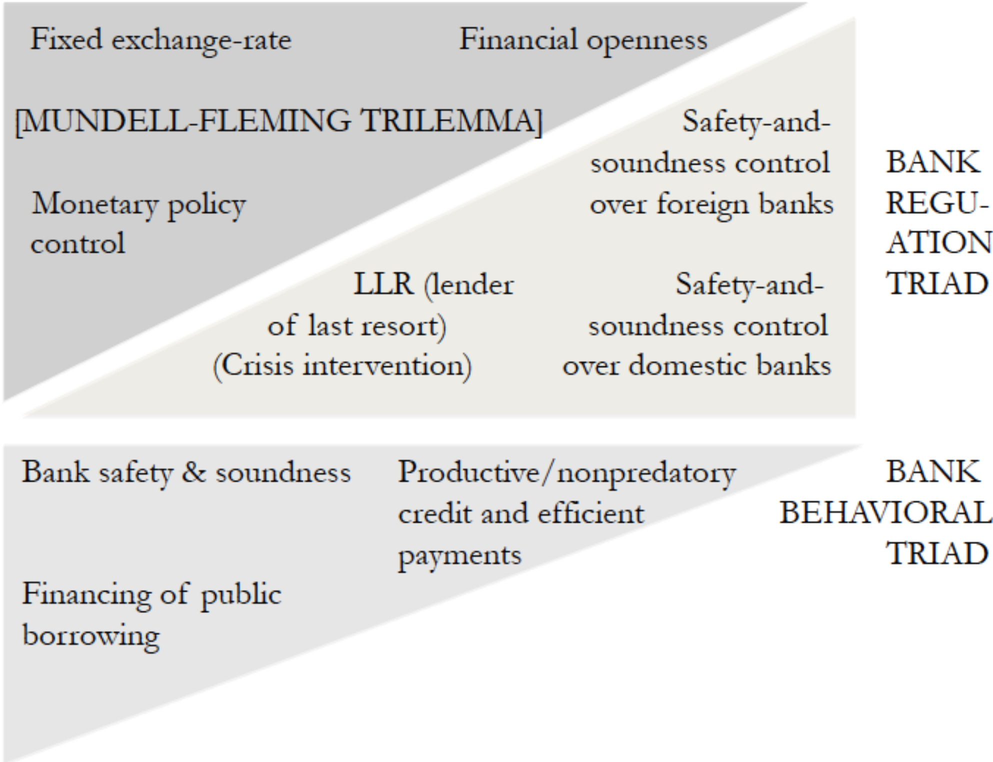
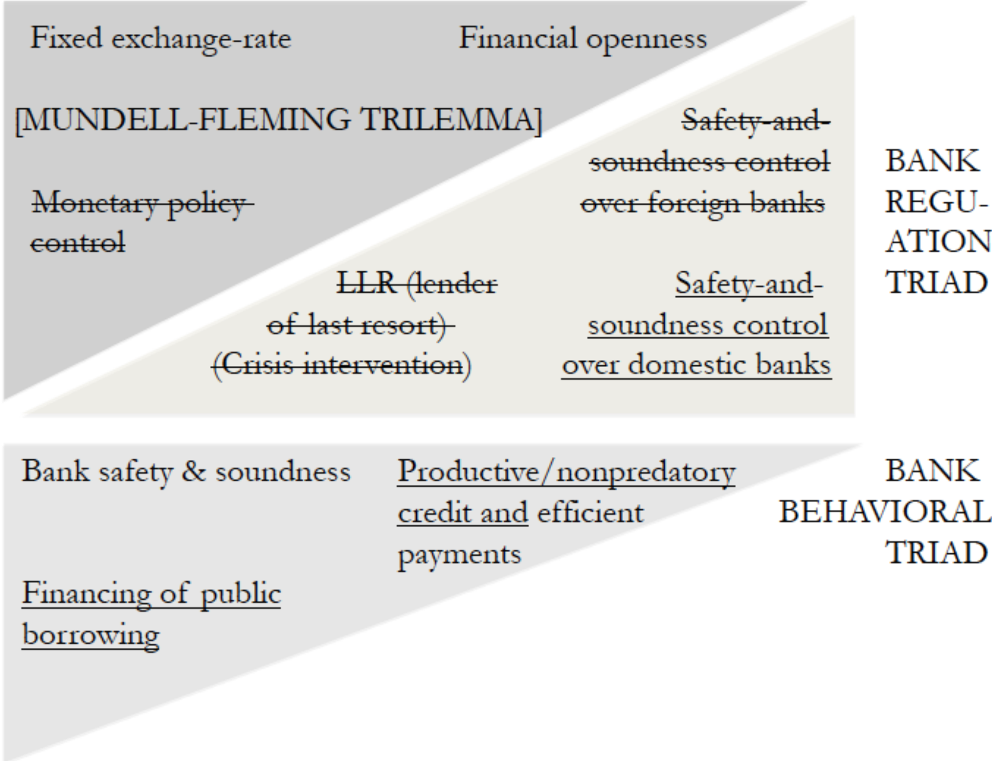


Figure 2: European banking: design and implications



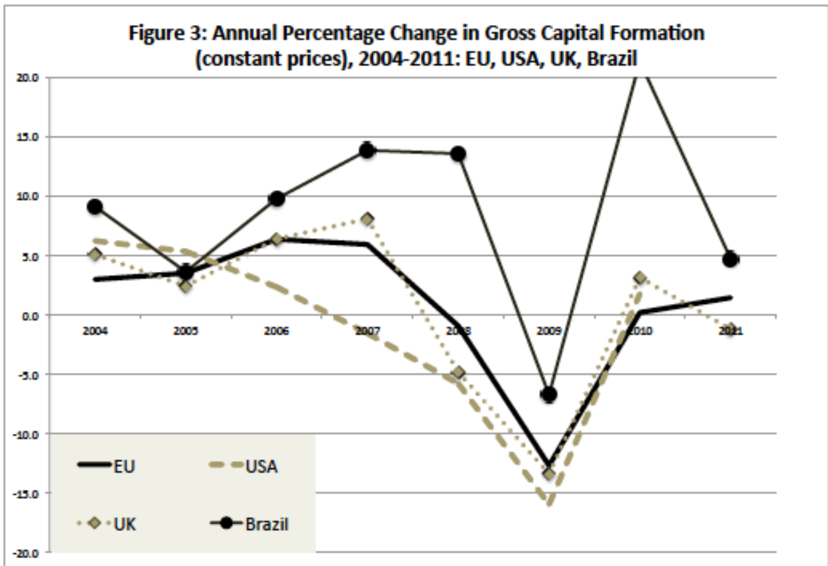


Figure 3: Annual Percentage Change in Gross Capital Formation (constant prices), 2004-2011: EU, USA, UK, Brazil
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
-15.0
-20.0
2004
2005
2006
2007
2008
2009
2010
2011
EU
USA
UK
Brazil

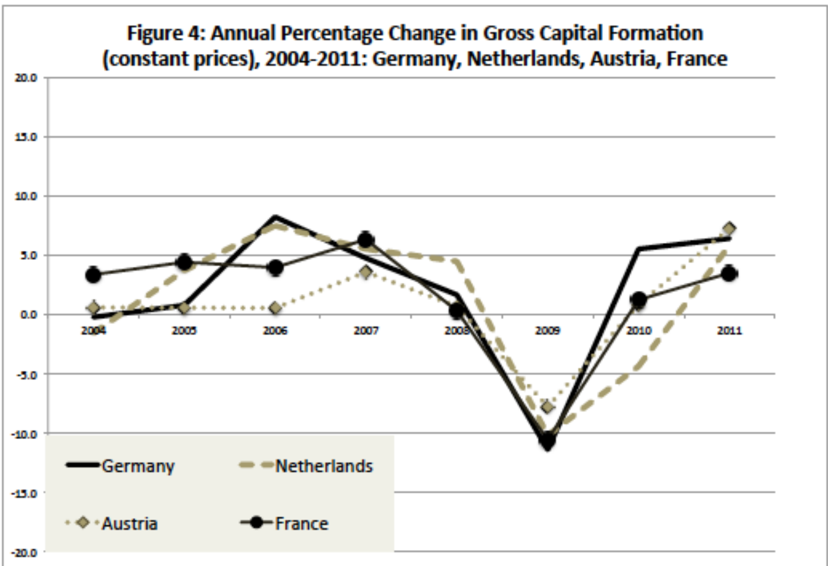


Figure 4: Annual Percentage Change in Gross Capital Formation (constant prices), 2004-2011: Germany, Netherlands, Austria, France
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
-15.0
-20.0
2004
2005
2006
2007
2008
2009
2010
2011
Germany
Netherlands
Austria
France

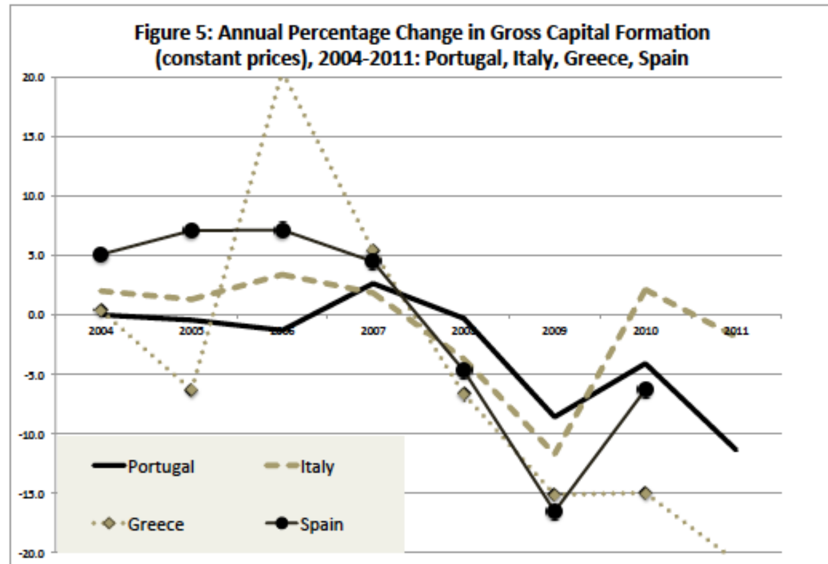


Figure 5: Annual Percentage Change in Gross Capital Formation (constant prices), 2004-2011: Portugal, Italy, Greece, Spain
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
-15.0
-20.0
2004
2005
2007
2009
2010
2011
Portugal
Italy
Greece
Spain

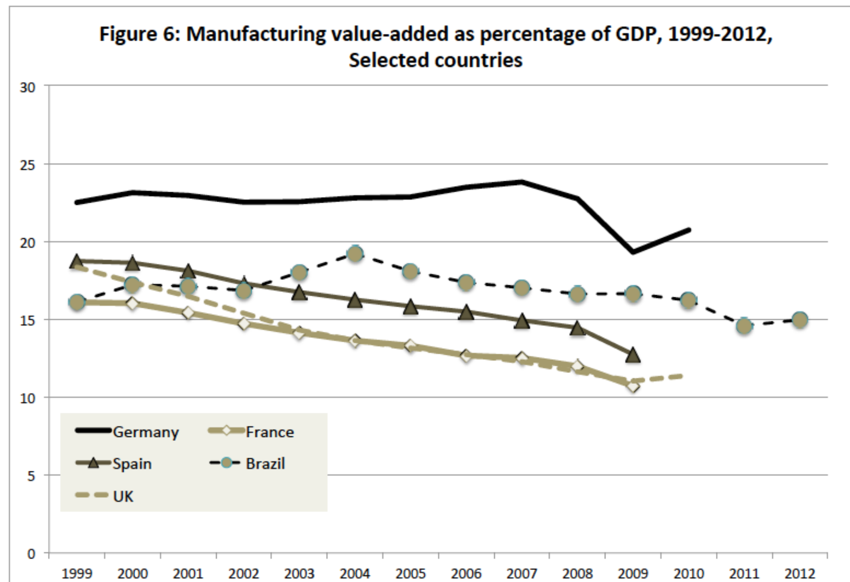


Figure 6: Manufacturing value-added as percentage of GDP, 1999-2012, Selected countries
30
25
20
15
10
5
0
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Germany
France
Spain
Brazil
UK

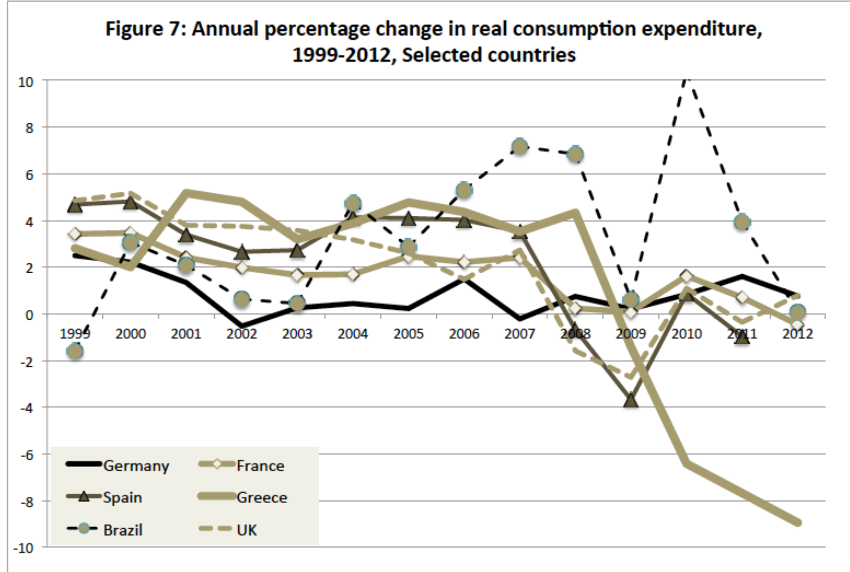


Figure 7: Annual percentage change in real consumption expenditure, 1999-2012, Selected countries
10
8
6
4
2
0
-2
-4
-6
-8
-10
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Germany
France
Spain
Greece
Brazil
UK

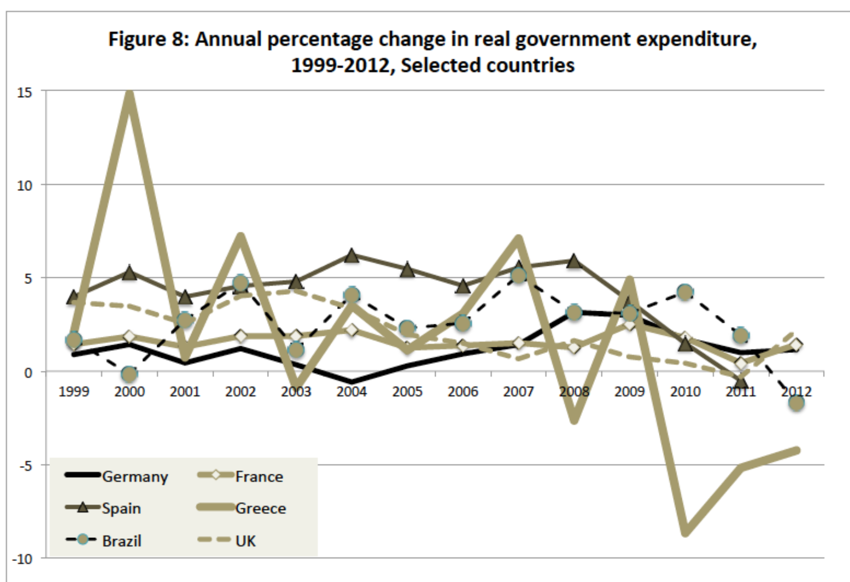


Figure 8: Annual percentage change in real government expenditure, 1999-2012, Selected countries
15
10
5
0
-5
-10
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Germany
France
Spain
Greece
Brazil
UK

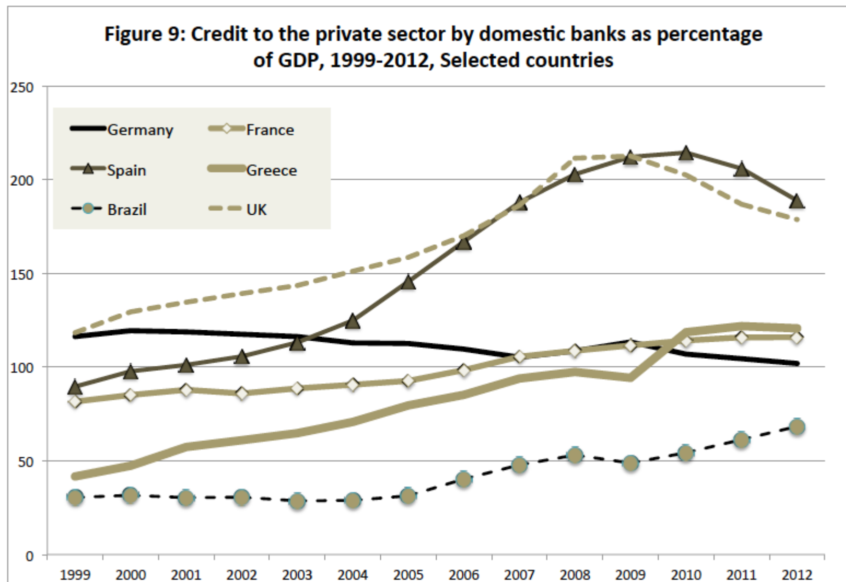


Figure 9: Credit to the private sector by domestic banks as percentage of GDP, 1999-2012, Selected countries
Germany
France
Spain
Greece
Brazil
UK
250
200
150
100
50
0
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

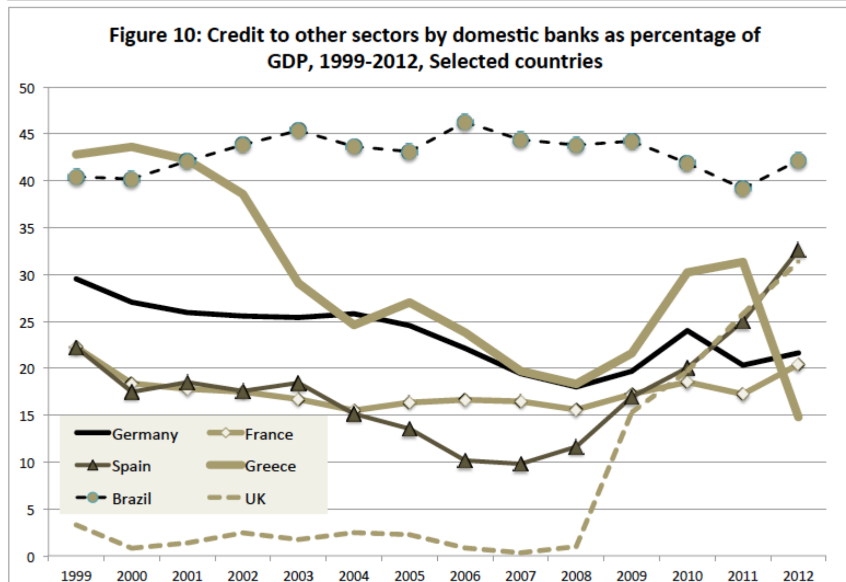


Figure 10: Credit to other sectors by domestic banks as percentage of GDP, 1999-2012, Selected countries
Germany
France
Spain
Greece
Brazil
UK
50
45
40
35
30
25
20
15
10
5
0
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

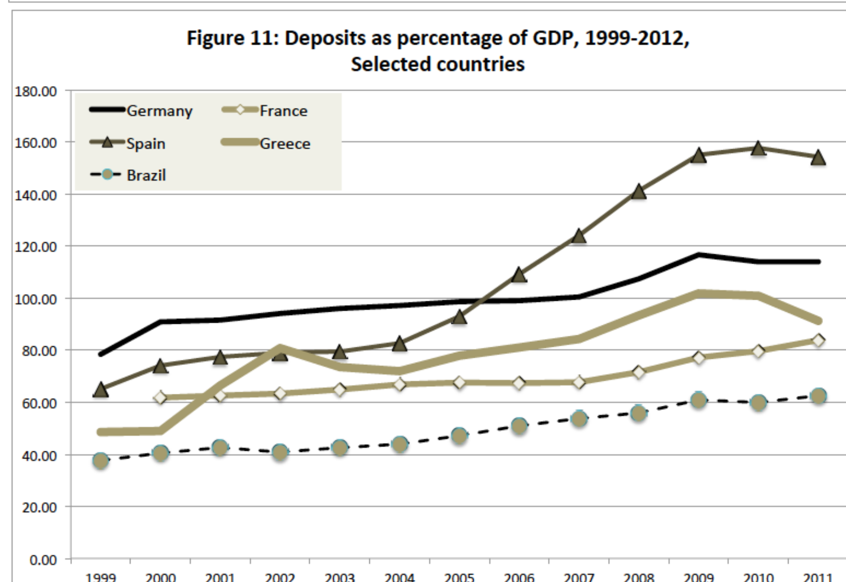


Figure 11: Deposits as percentage of GDP, 1999-2012, Selected countries
Germany
France
Spain
Greece
Brazil
180.00
160.00
140.00
120.00
100.00
80.00
60.00
40.00
20.00
0.00
1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011

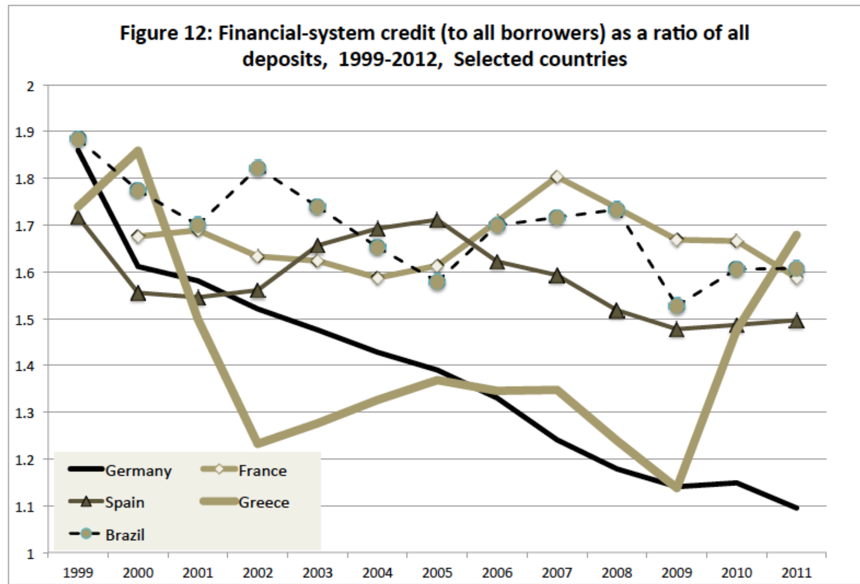


Figure 12: Financial-system credit (to all borrowers) as a ratio of all deposits, 1999-2012, Selected countries
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
Germany
France
Spain
Greece
Brazil
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011

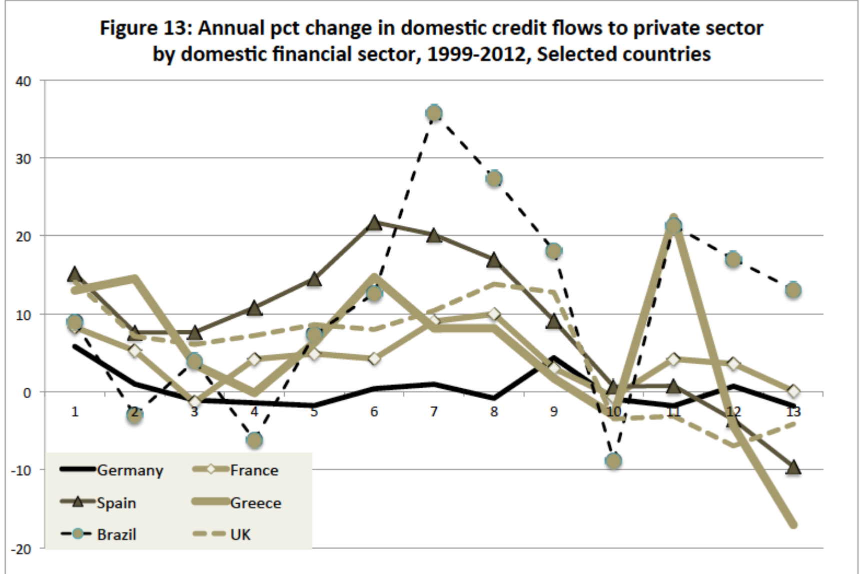


Figure 13: Annual pct change in domestic credit flows to private sector by domestic financial sector, 1999-2012, Selected countries
40
30
20
10
0
-10
-20
1
2
3
4
5
6
7
8
9
10
11
12
13
Germany
France
Spain
Greece
Brazil
UK

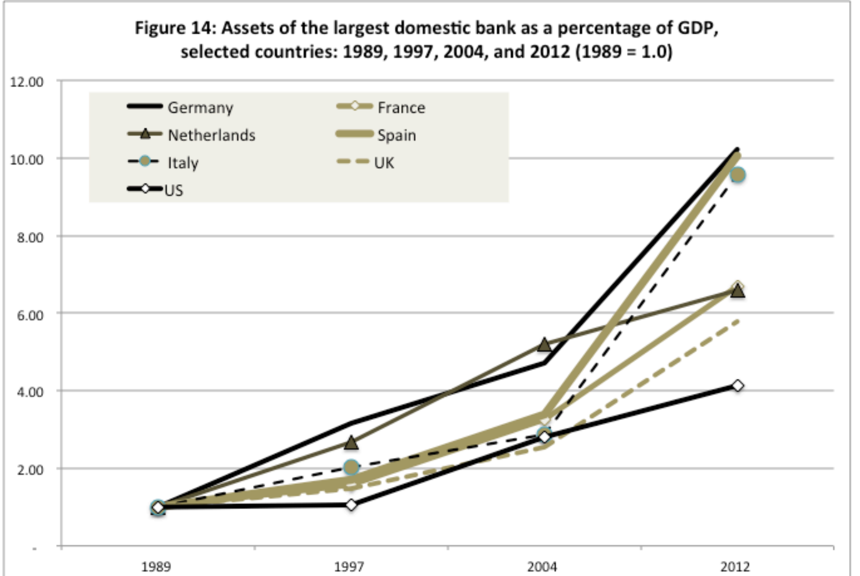


Figure 14: Assets of the largest domestic bank as a percentage of GDP, selected countries: 1989, 1997, 2004, and 2012 (1989 = 1.0)
12.00
10.00
8.00
6.00
4.00
2.00
-
Germany
France
Netherlands
Spain
Italy
UK
US
1989
1997
2004
2012

Table 1: Tables 1 and 3 from Lazzarini *et al*. (2012); see note 1.

Table 1
Comparison of selected development banks (2010)

	Brazil's BNDES	Inter-American Dev. Bank (IDB)	World Bank	Korea Dev. Bank	Germany's KfW	China Dev. Bank
Financials (US$ bn) and employment						
Total assets	330	87	428	123	596	751.8
Equity	40	21	166	17	21	59.2
Profit	6.0	0.3	1.7	1.3	3.5	5.5
New loans	101	10	26	n.a.	113	84.2
Outstanding loans	218	63	234	64	571	663.2
Staff	2,982	~2,000	~10,000	2,266	4,531	4,000
Performance ratios						
Return on equity (%)	15.0	1.6	1.0	7.8	16.7	9.2
Return on assets (%)	1.8	0.4	0.4	1.1	0.6	0.7
Profit/employee (US$ M)	2.0	0.2	0.2	0.6	0.8	1.4
Equity/assets (%)	12.0	24.0	38.7	14.0	3.5	7.9
Assets (US$ M) per employee	110.8	43.6	42.8	54.4	131.5	188.0

Source: based on Torres Filho (2009), with updated information from the banks' annual reports. For the World Bank the financial year is from 6/2009 to 6/2010.

Table 3
BNDES' participation in the firms included in the database

Year	Firms in sample	Firms observed with BNDES loans			Firms observed with BNDES equity		
		Number of firms	% of sample	BNDES loans to total debt, average (%)	Number of firms	% of sample	BNDES equity share, average (%)
2002	218	115	52.8	25.2	13	6.0	17.0
2003	196	109	55.6	30.1	12	6.1	17.6
2004	179	102	57.0	31.7	12	6.7	14.4
2005	170	96	56.5	31.1	17	10.0	15.4
2006	176	95	54.0	31.4	20	11.4	13.0
2007	203	114	56.2	31.8	25	12.3	12.3
2008	208	128	61.5	28.7	28	13.5	13.3
2009	215	128	59.5	32.9	31	14.4	13.2
Median			56.3	31.2		10.7	13.9