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Financing Utilities: How the Role of the European Investment Bank shifted from regional development to making markets

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2013

Online at <https://mpra.ub.uni-muenchen.de/51011/>
MPRA Paper No. 51011, posted 28 Oct 2013 14:29 UTC

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Abstract

In the face of continuing financial and economic crises, the European Investment Bank (EIB) has been criticized for being overly-conservative in its loans to Europe. Critics in particular have called on the EIB to vastly increase its investment in utilities as a counter-cyclical measure. To take stock and, in order to evaluate the role of the EIB in financing utilities over time, we compile and analyze an original database of all EIB utilities project loans from 1958 to 2004. We find the EIB started out by functioning as a regional development bank, prioritizing utilities finance in its members' poorer zones; however, energy crises in the 1970s marked a shift whereby the logic of EIB finance to utilities became more politically-oriented. By the 1980s, utilities projects supported by the EIB were intimately related to those required for the Single Market. The origins of the EIB's current conservative approach to utilities loans was born in the 1970s and fully consolidated by the 1990s.

1. Introduction

Utilities represent a considerable challenge from the financial viewpoint. They generally require massive capital investment involving sunk costs, whilst the financial decision is often accompanied by relatively high regulatory and economic risk, as well as issues of asymmetrical information, incentives, externalities and transaction costs (Florio 2013). Financial shortages for long-term investment purposes are particularly important, because utilities tend to be capital-intensive and have long maturities. These are some of the major reasons why private sector initiatives alone have often been insufficient to finance the development of utilities around the world. Initiatives from the public sector have also been necessary.

International Financial Institutions (IFI) have assumed an important role as part of public sector efforts to support utilities finance in the post-war period. Indeed, one of the main reasons to create IFI was to facilitate the finance of utilities, for reconstruction, development, growth or cohesion purposes. The pioneer IFI in this respect was the International Bank for Reconstruction and Development (IBRD), founded in 1944, later, to be known as the World Bank¹; after which a string of regional financial institutions or developments banks were established, including; the European Investment Bank (EIB) (1958), the Inter-American Development Bank (1959), the African Development Bank (1964), the Asian Development Bank (1966) and the European Bank for Reconstruction and Development (1991). Most of these institutions are based on intergovernmental cooperation among lenders and borrowers and function in a similar way to the World Bank but at the regional level.

Despite the fact the EIB was created as a regional IFI, it actually overtook the World Bank in 1994, as regards the volume of loans to projects in general, and to utilities projects in particular (EIB 1994; World Bank 1994). Since then, the EIB has maintained its position as the world's most important financier of utilities projects. In this light, it is surprising that there is a lack of scholarly work on the role of the EIB in financing utilities. General histories of the EIB are available, including both official publications (EIB 1978, 1998) as

well as scholarly accounts (Licari 1969; Bussière *et al.* 2008; Coppolaro 2009). But Robinson (2009) was right when he referred to the EIB as Europe's "neglected institution". Studies of EIB finance exist, but most of this work is limited to analyzing one sector at a given moment in time. As examples, Griffith-Jones *et al.* (2011) examined EIB loans to Small and Medium-sized Enterprises; Pinder (1986) and Pinder *et al.* (1995) focused on the finance of regional development and transport; and Tuijnman (2009) studied loans to education. But these studies do not provide an over-arching perspective on EIB finance. Much more is known about loans by the International Monetary Fund (IMF) and the World Bank than the EIB.²

Hence there is a lack of understanding about the role of the EIB in financing utilities. This omission has become more acute during the ongoing financial and economic crises. The EIB has been criticized for assuming an overly-conservative posture towards lending in the crisis. Both the popular press (*Financial Times* 2012a and 2012b) as well as the scholarly community (Lesay 2010, Kaul 2012, Griffith-Jones *et al.* 2012, Griffith-Jones and Tyson 2013) have called on the EIB to adopt bolder decisions by increasing the scale of its lending to finance higher risk activities, particularly, to utilities, as a countercyclical policy to assuage the current economic context, specifically towards those countries most negatively affected by the crisis. At the theoretical level too, the ongoing financial and economic crisis is generating a revitalization of economic theory on the role of public investment for growth (Lin and Rosenblatt, 2012; Cortuk, 2013 and Lin, Sun and Jiang, 2013).

The main aim of this paper is to start to fill this knowledge gap by analysing the EIB's contribution to financing utilities over the long-term. To the best of our knowledge, this article represents the first attempt to reconstruct and analyse all loan data for utilities over the life of the EIB. To do so, we extracted data from the *Annual Reports* available in the historical archives of the European University Institute, Florence, Italy. Our analysis spans the period between 1958, the year the EIB commenced lending, to 2004, the final year that this data is publicly available.³

Our analysis of the EIB's contribution to utilities finance is framed using key economic history literature (particularly, Hausman *et al.* 2008 and Millward 2005). Accordingly, we

would expect to see an initial period, from the creation of the EIB to around the 1970s, characterised by a “golden age” as regards the role of IFI in financing utilities, due to their inherent advantages in offering long-term and low interest loans in an age of financial shortages. We would then expect a new phase to be ushered in, characterized by financial globalization and excess liquidity in capital markets, Stiglitz’s (2003) “roaring nineties”. In this period, the availability of excess private capital led some scholars to question whether IFI were still important (Klein 1998) whilst others came to their defense, claiming they were still important, in their providing technical expertise (Rodrik 1995) and economic stability, engaging as they did in counter-cyclical lending when necessary (Stiglitz 1998, 120).

To anticipate our findings, our analysis of EIB utilities finance broadly fits into this pattern. We identify a first phase, between 1958 and 1972, where the EIB functions predominantly as a bank to promote regional development in the poorest regions in the European Economic Community (EEC). A key strand of this work was the financing of public utilities projects in the Mezzogiorno, Southern Italy, by far, the poorest region of its Member States. This lending practice was disrupted from 1973, due to the oil crises and the collapse of the international monetary system. EIB finance is associated in this period with promoting a new energy paradigm and as acting as a “sweetener” for new accession Member States. Then, from the middle of the 1980s, a new lending pattern emerges. EIB lending becomes more closely aligned than ever with the objective of consolidating the Single Market project. In this period, utilities projects are prioritized across all Member States – particularly those on the geographical periphery of the Single Market – to further their integration into the market. At the sectoral level, finance is targeted predominantly towards the Trans-European Networks (TENS) – particularly road and railway transportation - as well as those sectors put up for liberalization through sectoral Directives and, often, privatization, particularly, telecommunications, electricity and gas. In this period, we describe the logic of EIB loans as that of a “market-maker”. In sum, EIB finance was initially guided by regional development objectives in the early period, was disrupted and converted in a political one associated with the new energy paradigm, and, finally, emerged as a market-based logic, bolstering the Single Market project.

The rest of this article is organized in the following way. Section Two provides an

analytical framework setting out the changing ways in which utilities have been financed over time, grounded in recent economic history literature, before briefly discussing the background to the creation of the EIB and its lending prerogatives, as established in its Statutes (EIB 1957). We also describe the methodology of data collection. We then turn to the three phases of EIB lending. Section Three analyses the first phase of EIB finance from 1958 to 1972; Section Four describes the transition period, chronicling the EIB's changed role in responding to new policy priorities. Section Five examines EIB lending in the most recent period, from 1985 to 2004, showing its turn to market-making. We conclude with some observations about the real and potential role of the EIB in the ongoing crisis.

2. Analytical framework

Tapia (2012) observed that the availability, access to and nature of finance is a key factor in understanding how utilities develop. In the recent period, important studies have provided insight into the complex and changing ways by which utilities have been financed over the longer term. Millward (2005) analyzed the changing role of public and private initiatives in the development of energy, transport and telecommunications across Western Europe during the nineteenth and twentieth centuries. Hausman *et al.* (2008) tracked the role of international private and public finance as the world was electrified from the end of the nineteenth century to the present. These the scholars coincide that the expansion of utilities can be organized roughly into three, major “waves” as regards involvement of public/private actors in utilities finance (Clifton *et al.* 2011). In the first wave, during the nineteenth century, much utility development was characterised by the pioneering role of private sector initiatives, which was supported in turn by the public sector, principally as a regulator (Millward 2005). A second wave emerged, gradually, from the end of the nineteenth century, accelerating after the Second World War. In this period, it was the turn of the public sector to rise to dominance in utilities development, both in regard to their finance and management. Finally, triggered by the collapse of the international monetary system and the oil crises during the 1970s, a third wave emerged. Again, the private sector reinstated itself as the prime protagonist in the promotion of utilities finance. Clearly, these are overall, impressionistic, waves of public/private involvement in utilities and, typically, public and private initiatives worked together in multiple and complex forms throughout the two centuries. Nevertheless, we will use this overarching framework to uncover the

role of the EIB as a financier of utilities across the period.

The EIB was established in the Treaty of Rome in 1957 and created in 1958, well into the second wave of utilities development where public initiative was ascendant. Its members were the EEC “six”: Belgium, France, the Federal Republic of Germany, Italy, Luxembourg and the Netherlands. Its constitutive documents, inscribed in the Statutes (EIB 1957), which set out its functions, financial mechanisms and financial objectives, reflect this historical moment. However, like other IFI, the EIB had to adapt to changing circumstances and financial priorities in the ensuing decades. Doggart (1994) has documented, for instance, how the World Bank adapted from prioritizing the finance of reconstruction, mostly in Europe, to financing development in developing countries. In the case of the EIB, we show how it evolved from an IFI that initially prioritized financing utilities associated with development in an age of long-term capital scarcity, to one that primarily financed utilities that contributed towards the consolidation of the Single Market in a period of private capital surplus. This has important consequences constraining the EIB’s activity in the ongoing crisis, as we conclude.

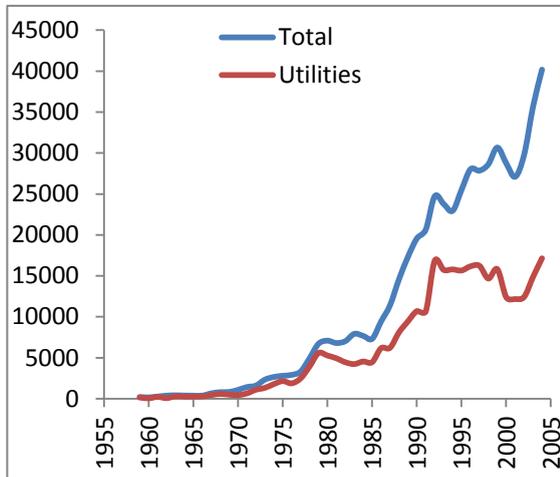
To appreciate the initial role of the EIB *vis-à-vis* utilities finance, we need to understand the broader context. Financial restrictions, international capital controls and dollar shortages predominated. The creation of the EIB in 1958 marked another step as part of an ongoing initiative, which the World Bank had started, to help finance reconstruction efforts in the post-war period. There are notable similarities as regards the functioning of the World Bank and the EIB in the early period. The first continuity is found in the kinds of projects financed; the second continuity, in the financial mechanism used.

As regards projects financed, the World Bank’s first loans between 1944 and 1947 were destined for reconstruction programmes in France, the Netherlands, Denmark and Luxembourg. These loans were designed as national programmes, not associated directly with a specific project or sector. But soon, from 1949, the World Bank was already changing its approach, reducing its finance of reconstruction in Europe, and augmenting finance of developing countries, whilst opting to finance projects not programmes (Alacevich 2011). The World Bank did continue to finance projects in Europe in the

1950s, though this took up a declining share of its overall activities. Important project finance occurred in this decade in the Netherlands, Belgium, Finland, Turkey and Italy, in particular, in the Mezzogiorno. As the World Bank reduced proportionally its finance away from Europe to developing countries, the EIB increased the loans made to European countries. There appears to have been an informal “hand-over” period, in that some of the first EIB loans were co-financed with the World Bank during the late 1950s and the 1960s (EIB *Annual Reports*, 1958-1971, World Bank 2013a).

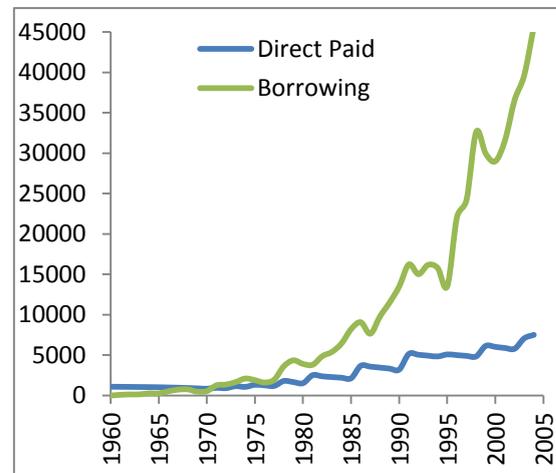
The second similarity between the two IFI was the lending policy adopted. The World Bank established itself as a non-profit IFI whereby its loans were financed by borrowing at the best available rate in international markets, but its loans had an interest rate set at the World Bank’s own borrowing cost, thus the same for all borrowers regardless of country or project. In other words, the World Bank gave equal status to all borrowers (Doggart 1994: 8). The EIB emulated the World Bank, applying this same lending policy. EIB loans were sourced principally from international capital markets, though these were supplemented by direct payment from members as well as additional capital guarantees. Figures 1 and 2 show how, until 1973, EIB project finance was relatively small and mostly financed by EIB resources but, from 1973, its loans increased significantly in parallel with the increase in its capture of funds in capital markets, which became the dominant form of finance. The EIB could therefore make long-term loans at favourable conditions because it enjoyed “triple A rating”, as guaranteed by its solvent members (Robinson, 2009).

Figure 1. EIB finance in the EU-15 (million 2000 US\$)



Source: Elaborated by authors based on EIB (various years).

Figure 2. EIB finance sources (million 2000 US\$)



Source: Elaborated by authors based on EIB (various years).

So, the creation of the EIB is a case *par excellence* of the increased role of public finance of utilities in the post-war period. Even so, negotiations leading up to its establishment exhibited some tension as to the extent to which the EIB would function as a regional development bank – prioritizing investment to poorer and less-developed regions, as Italy in particular had desired – or whether it would act more in line with private market principles, financing largely only viable projects, as the German government had sought (Bussière *et al.* 2008). These tensions were partially resolved in the compromised approach as reflected by the Statutes (EIB 1957). The Statutes set out the governance of its financial operations, and specified the bank would finance three kinds of projects: 1) projects for less developed regions 2) projects for modernizing or converting enterprises or creating new activities required by the Single Market which would not be entirely funded by individual Member States; 3) and projects of common interest to several Member States which would not be financed by Member States alone. As regards financing mechanisms, the EIB would co-finance projects, including utilities, along with other public as well as private agents. In addition, the EIB could lend to Member States and also to non-members.

Of course, taken together, these three lending rationales are relatively open-ended and

allow for a high degree of discretion, flexibility and change. Whilst it is clear that objective one is associated with a development function, objectives two and three are less obviously connected to development. Both objectives two and three could be used equally well to justify the finance of a project with social or cohesion aims as a project with profit-making purposes. Given this, the EIB enjoyed considerable flexibility as the Statutes could be used to justify different kinds of financial decisions. The very fact that the EIB's three lending objectives were so broad was an early sign that it could potentially develop in different directions to the World Bank. For one thing, it could lend to all its members - not just the less developed ones. But it could also diversify more broadly than the World Bank by sector: and this it did, initially into nuclear power and industrial development banks in the early 1960s (EIB 1962).

In light of the framework on the shifting role of public and private involvement in utilities finance presented above, we might expect the EIB to focus more on objective one during the late 1950s and throughout the 1960s, before turning to prioritizing projects more associated with private markets from the 1970s onwards, using as justification objectives two and three. To anticipate our conclusions, this is, broadly speaking, what we find, though with some nuances. And it was the flexibility in EIB Statutes that helped it shift from development to supporting the market, as we shall see.

A brief mention should be made of our data collection and analysis before proceeding to the analysis. We extracted all loans made by the EIB and organized them by project between 1958 and 2004 using official annual reports (EIB *Annual Reports* 1958-2004). We then selected only those projects financed in the EEC/EU. Our analysis thus draws on a comprehensive dataset comprising micro-data on over 6,000 projects co-financed by the EIB, of which 56% were in the utilities sectors. The database includes information about the relative quantity of finance by the EIB (in current terms and also in constant US\$ 2000), the description of each project, by sector, country, region and the company or administration involved. To express the value of project finance in constant terms and, in order to compare our findings in the international context and to introduce an unbiased rate of inflation, we report all figures in 2000 US\$.⁴ This database allows for disaggregation, by sector and geography, helping ascertain the changing logic of EIB lending over the

period.

3. The Initial Years: A Bank for Development? 1958-1972

Our analysis of EIB utilities finance over the period shows there were three clearly demarcated periods. Initially, from 1958 to 1972, EIB finance shows the overall objective was to finance development, objective one of the Statutes (EIB 1957). The EIB's official report of its first twenty years stated that over 70% of its finance had gone to regional development (EIB 1978). Lending was particularly channelled to the Mezzogiorno, in Southern Italy, the least-developed region of all its members at the time. Important utilities projects included the improvement of transport networks in Calabria and Sicily, water supply and irrigation in Apulia, Basilicata, Calabria and Sicily and power station development in Calabria, Campania and Sardinia. In this period, therefore, the EIB most closely resembled a multilateral development bank, prioritizing project finance in its Members' poorest regions. Thus, as World Bank finance was reduced to Europe at this time, EIB finance grew in the region. This occurred for example in the Mezzogiorno. Here, the World Bank had already been involved in financing, usually through the regional development institution, *Cassa per il Mezzogiorno*, which obtained loans guaranteed by the Italian government. As World Bank loans withdrew from the region, EIB loans increased; in the intermediary period, many projects were co-financed by both IFI.

The first four EIB loans were approved in 1958. In 1959, the volume of projects financed reached 222 million 2000 US\$ and, of this, two thirds was destined for utilities projects. Between 1958 and 1972, EIB loans increased eightfold: in 1972, annual loans totalled 1.6 billion 2000 US\$. Again, two thirds of this amount was destined for utilities.

Italy attracted by far the most finance in this period. In total, Italy received 5.2 billion 2000 US\$, or nearly 60% of all EIB loans. Finance was mostly destined to utilities and industrial development in the south of the country. France and Germany were the second and third countries to receive loans, attracting 21.8% and 13.2% of total finance, respectively. Meanwhile, the smaller members, Belgium, Luxembourg and the Netherlands, received

only 5% between them. Another way of analysing finance is per capita. But even measured this way, Italy, along with Luxembourg, received largest volumes per capita (around 102 2000 US\$).

Two thirds of EIB finance went to utilities. Table 1 shows the distribution of finance by sector and country. Transport led, followed by energy and water and waste until the mid-1960s, after which, telecommunications emerged in third place.

Table 1. EIB finance to utility projects by country and sector, 1959-1972 (million 2000 US\$ and percentages of total)

Country	Transport		Energy		Telecommunications		Water and waste	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Belgium	96	4.2	98	6.4	0	0	0	0
France	287	12.7	673	44.3	332	37.7	171	37.2
Germany	258	11.4	430	28.3	0	0	0	0
Italy	1594	70.4	254	16.7	548	62.3	274	59.6
Luxembourg	0	0	17	1.1	0	0	14	3.1
Netherlands	28	1.3	47	3.1	0	0	0	0
Total	2263	100	1519	100	881	100	459	100

Source: Elaborated by authors based on EIB (various years).

Most finance to transport went to Italy. Initially, EIB loans targeted railways in Italy, Germany and France but, particularly from 1964, loans increased to develop motorways, especially in Italy. Of particular importance was motorway construction and widening in Bari-Masafra, L'Aquila-Villa Vomano and Caserta-Salerno (88, 86 and 77 million 2000 US\$ respectively). Regarding energy projects, however, France received most finance (44.3% of all total for this sector) followed by Germany (28.3%) and then Italy (16.7%). From 1972, however, finance shifted sharply towards nuclear energy, a trend that would continue into the second phase of EIB lending, as we shall see. Amongst earlier significant projects here were Fessenheim (France), Philippsburg and Brunsbittel, both in Germany,

and Liege, Belgium. Finance for telecommunications was destined to develop networks in the south of Italy (two thirds of finance for this sector) and the south of France. Italy also received nearly 60% of all EIB finance for the water and waste sector: again, most of this was destined for its south. France received most of the remainder.

How can this domination of EIB finance to Italy's south be explained? First, it should be remembered that Italy was also the World Bank's major European borrower between 1951 and 1959. The World Bank had lent Italy a total of 1.51 billion 2000 US\$ and in 1965, another 0.45 billion 2000 US\$. As World Bank loans decreased to Italy, loans by the EIB increased: effectively, the EIB "took over" the job from the World Bank in the region. By the end of June 1972, the EIB had granted 172 loans and guaranteed another 3.94 billion 2000 US\$ for ventures in the Mezzogiorno. This represented around 80% of all its operations in Italy or half of its finance across all Member States. Simply, the Mezzogiorno was by far region to attract most from EIB loans in this first period. Of EIB finance to the region, 44% was destined to utilities infrastructure; transport received 18%, telecommunications 11%, energy 6.4%, and water supply and distribution, 3% (EIB 1972). Alacevich (2013) claims that one of the reasons the Mezzogiorno successfully attracted finance from IFI in this period is that the "Southern Question" became recognized as being an issue of national interest, and key to the attainment of national economic convergence. In addition, in organizational terms, the presence of the Mezzogiorno in national and international negotiations was bolstered as the *Cassa per il Mezzogiorno* interacted as a regional actor in parallel to the Italian government's implementation of national economic planning from the 1960s (Pasquino and Pecchini, 1975). However, the success of Mezzogiorno representatives in promoting regional finance is most likely not due to planning efficiency: Prodi (1974) and Fraenkel (1975) characterize Italy's early planning attempts as largely impotent and slow. An alternative explanation for the region's success in attracting finance is more likely to be found in astute political bargaining on the part of regional and Italian negotiators. Nevertheless, the EIB's significant finance towards the region in this period is the clearest illustration that, overall, the objective of financing the poorest regions of Members was at the heart of the development-oriented EIB in this first period (Bussière *et al.* 2008).

4. Rupture and Transition: The Turn to a Policy-Oriented Bank

The year 1973, marking the onset of the first oil crisis, and the collapse of the international monetary system established in Bretton Woods, heralded a rupture in EIB lending practice. From this year to 1985, EIB lending entered a transition period, whereby former priorities privileging development objectives were gradually diluted whilst new, policy-oriented objectives came to the fore. The crisis sparked a rise in inflation and current account deficits. The recycled oil surplus created excess liquidity in commercial banks, and many developing countries sought out international loans at low interest rates. However, once the US Fed tightened monetary supply in 1979, US and European interest rates rose, leaving developing countries unable to service their foreign debts.

The World Bank responded by shifting from its tradition of financing large utility projects towards country-oriented lending. In particular, it supported structural adjustment programs (Galambos and Milobsky 1995). In practice, this meant that borrower countries enjoyed loans conditional on their implementation of particular policies. In this case, World Bank loans were made if borrower countries promised to undertake structural adjustment thus meeting their debt obligations and economic restructuring. These policies entailed reducing public consumption and investment, liberalisation and privatisation of state-owned enterprises – including, of course, the utilities. Galambos and Milobsky (1995) showed that this change to structural adjustment program was part of the long-term transformation of the World Bank under McNamara (1968-1981) towards a more business-oriented organisation, reflecting the influence from Wall Street. In short, World Bank loans became less oriented on technicalities and long-term investment for development, and more focused on short term political programs involving structural adjustment.

The EIB also changed its lending priorities in this period. Firstly, EIB lending reduced its former prioritizing of financing lesser-developed regions. Support for development remained, but was diluted. And secondly, lending became more closely aligned with new political logics. Two stand out above all. The first political logic was connected to the Commission and Member States' quest for energy independence in the aftermath of the

1973 oil shock. The second logic was the use of EIB finance as a “sweetener” for newly acceding Member States, starting with Denmark, Ireland and the United Kingdom (UK) in 1973, followed by Greece in 1981.

We now turn to analyze the projects financed in the period. Between 1973 and 1985, the volume of loans made by the EIB increased over threefold, from 2.3 billion in 1973 to 7.3 billion 2000 US\$. This was possible due to the increase in interest rates in world financial markets, which facilitated EIB loans to its members because it could offer them lower interest rates over a longer-term thanks to its privileged borrowing from international capital markets.

Though EIB loans to Italy were less dominant than in the first period, Italy still captured nearly 42% of all loans between 1973 and 1985 (29.1 billion 2000 US\$ 2000). However, the second most important country to capture finance was the UK, which attracted 13.2 billion 2000 US\$ 2000, nearly 20% of all loans. This can be understood as some kind of sweetener for the largest of the new accession Member States. Again, an analysis of finance per capita can shed a different light on these patterns. From this perspective, two new Member States, Ireland (with 715 2000 US\$ per inhabitant) and Denmark (300 2000 US\$ per inhabitant) received highest percentages, reinforcing the political logic of loans associated with accession. Italy was only in third place (258 2000 US\$ per inhabitant) and Greece trailed closely behind. Germany and the Netherlands received the lowest percentages of finance per capita, with 15 and 9 2000 US\$ respectively. Utilities, once again, were the most important sectors to receive loans and made up for half of all EIB finance. But, in contrast to the first period, those utilities projects receiving finance were not predominantly those located in those less-developed regions. Rather, they were associated with the will to establish a new energy paradigm. The distribution of utility projects by country and sector in this period is shown in Table 2.

Table 2. EIB finance to utility projects by country and sector, 1973-1985 (million 2000 US\$ and percentages of total)

Country	Energy		Telecommunications		Transport		Water and waste	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Belgium	1240	5.6	0	0.0	0	0.0	0	0.0
Denmark	1884	8.5	48	0.6	480	6.5	32	0.5
France	3281	14.8	1858	22.0	1493	20.3	141	2.0
Germany	2017	9.1	0	0.0	0	0.0	53	0.8
Greece	498	2.2	509	6.0	472	6.4	266	3.8
Ireland	1009	4.5	1052	12.4	784	10.7	737	10.4
Italy	6816	30.7	4034	47.7	2728	37.2	3310	46.8
Luxembourg	0	0.0	0	0.0	20	0.3	0	0.0
Netherlands	178	0.8	0	0.0	62	0.8	0	0.0
United Kingdom	5313	23.9	952	11.3	1301	17.7	2534	35.8
Total	22235	100.0	8453	100.0	7338	100.0	7073	100.0

Source: Elaborated by authors based on EIB (various years).

Contrasting the distribution of finance by sector and country in the two periods 1958-1972 and 1973-1985 is revealing. Whereas in the first period, transport dominated, in this second period, energy is by far the dominant sector. Finance to energy totalled 22.2 billion 2000 US\$ during this period. Moreover, EIB finance to energy peaked twice, in 1974 and 1979, first in reaction to, and then in conjunction with, the two oil crises. This supports our claim that EIB finance became more influenced by new energy policy pushed by the Commission and Member States. The oil crises had sparked activity among Member States and the Commission as regards strengthening a common policy. EIB official documents formally acknowledged the objectives of reducing energy dependency and the balance of payments deficit had become its new priorities (EIB 1978).

EIB finance was particularly important for nuclear energy in this period. Already in 1972, the year prior to the crisis, Belgium, France and Germany had used EIB finance towards the development of their nuclear power programmes. This was just the beginning

of a process that was given huge impetus by the energy crisis. Between 1974 and 1985, the EIB lent over 5 billion 2000 US\$ to the nuclear sector. Then, from 1973 to 1985, finance to nuclear energy projects boomed, especially in Belgium, France and Germany, but also in Denmark, Italy and the UK. This finance was often done in collaboration with state-owned energy companies, including EDF or ENEL.

After energy, telecommunications was the second most important of the utilities to receive finance. Indeed, telecommunications finance increased steadily throughout the period. Often, EIB finance was associated with development, particularly as half of telecommunications finance went to southern Italy (Apulia, Campania and Sicily). Lagging some way behind Italy was France, with 22%, mostly destined for its northern regions such as Lorraine and Calais, Ireland (12.4%) and the UK (11.3%).

Relative volumes of finance to transport fell drastically in this second period – indeed, it appears that extra finance for energy was prioritized in place of transport. Finance to transport was destined for Italy, followed by France, the UK and Ireland. Most loans were targeted for highway development, in France, the south of Italy, and to connect Italy with the rest of Europe. Finance to water and waste increased when compared to the first period, and nearly equalled that for transportation in the second period. Water and waste finance lagged behind the other sectors. Water finance followed a cyclical pattern, peaking in 1979, when the EIB invested 1.4 billion 2000 US\$. Italy, the UK and Ireland were the main recipients of finance, in that order. In the cases of finance of transport, telecommunications and water/waste, bias towards the new accession countries, can be observed. The logic of EIB finance had switched from one prioritizing development to one responding to EU policy objectives: energy independence and enlargement.

5. The EIB as “Market Maker”

From the middle of the 1980s, in the aftermath of the oil shocks and the collapse of the international monetary system, the EIB settled into a new phase of lending. This period ushered in a new approach to economic policy of privatization, deregulation and market liberalization. These same policies were diffused and promoted by international financial institutions, particularly, the IMF and the World Bank, and became to be

known as the Washington Consensus. This new trend changed the rules of the game as regards economic policy in general, privileging private actors over public ones (Rodrik 2006).

Financial globalization meant that the traditional model of IFI designed to finance large utilities projects in times of capital scarcity was losing ground. Financial deregulation, coupled with the privatization and deregulation of public service utilities, challenged IFI lending practices. Lindbaek *et al.* (1998) remarked that IFI even risked encroaching on opportunities for private financial business which could increasingly lend at better conditions than IFI. Rodrik (1995) suggested IFI bolster their long-acquired skills in technical and information expertise in order to remain relevant. Klein (1998) predicted that, in the face of financial deregulation, World Bank utilities finance would become untenable. In practice, this did not occur: private finance to utilities did not continue to increase as Klein (1998) had predicted; indeed, it actually declined over the period 1997 to the mid-2000s (Clive 2003, Estache 2010).

In the specific context of the EU, though the Commission lacked competence to promote privatization, it did push for deeper economic integration when Jacques Delors, president of the Commission, announced his priority would be to further extend the Single Market. The Single Market Act and the Treaty of Maastricht put this target into place. This included the progressive liberalization of goods but also of services – including major utilities such as electricity, gas, telecommunications, as well as some forms of transport – from the 1980s onwards. Meanwhile, the UK government led by Margaret Thatcher had commenced a privatization movement from 1979 which was emulated, unevenly, and for various reasons, by other EU governments during the 1990s. Theoretically, liberalization and privatization are distinct policies, the first referring to competition and the second to ownership. However, in practice, in the specific context of the EU at this time, the liberalization and privatization of utilities, particularly in energy, transportation and communications, became inter-related (Clifton *et al.* 2006, 2010, Trillas 2010). One consequence was that, within a few years, huge utility firms emerged as some of the world's most important Multinationals (Clifton *et al.* 2007, 2013, UNCTAD 2008). What we see in this period of financial globalization and deeper European integration is the EIB's prioritization, generally cyclical, of finance towards those sectors that are

subject to: liberalization by national governments or the EU, via sectoral directives; national privatization programs; and, finally, sectors key to the Trans European Network program (TENS).⁵

Liberalization and deregulation of the utilities sectors went hand in hand with financial deregulation. Increased openness of international financial markets, financial innovation and progressive lowering of interest rates favoured greater access by the EIB to new investment flows. Despite the fact that this period was characterized by low interest rates, loans by the EIB soared, particularly towards utilities. This can be explained by various factors. First, the EIB experienced an overall increase in demand for loans, partly due to the accession to the EU of Spain and Portugal from 1986, and Austria, Finland and Sweden from 1995. Secondly, a greater diversity of countries with unequal privileges regarding access to private capital markets sought EIB loans. Thirdly, there was a growth in the number of medium to high-risk, huge investment infrastructure projects. Here, EIB lending rates remained highly competitive *vis-à-vis* private capital markets. Examples include EIB loans for highway construction in North Spain (1994-6); railway investment in London (1997), London-Glasgow (1999) and London-Fawkham Junction (2003) and the London Underground (2002-3); plus the high-speed railways linking Rome-Naples in 1998; Bologna-Florence 1999; Milan and Naples in 2004. Reflecting increased demand, the value of projects financed by the EIB more than quadrupled between 1986 and 2004, from 9.4 billion 2000 US\$ to 40.2 billion 2000 US\$. In this age of excessive private capital availability, whilst the World Bank reduced its lending volumes, particularly to utilities (Klein 1998, Estache 2010), the EIB actually *increased* them. Its lending strategy favoured above all loans to transport, particularly roads and railways, and energy infrastructure, often in the name of connecting previously fragmented national markets.

By 1994, the EIB emerged as the world's most important multilateral lending institution, more important even than the World Bank (EIB 1994; World Bank 1994; Lankowski 2000). So, the Single Market project and the turn to privatization, combined with the deregulation of financial markets, set the scene for this new phase of EIB lending. We argue the EIB was transformed into a "market maker", as huge volumes of finance were channelled to utilities either undergoing or about to undergo sector

privatization, and/or, liberalization. EIB finance was guided to a much lesser extent by objective one, towards development of the poorest regions of its members, since the percentage of loans for development was reduced in this phase as a proportion of total loans. Rather, we argue, the overarching project was that of consolidating the Single Market. Returning to the EIB's original three finance objectives, consolidating the Single Market can best be categorized as belonging to objective 3, projects of common interest. This had two, inter-related strands. Firstly, EIB finance reflected a logic of "bringing in" Members on Europe's peripheries "into" the Single Market. Secondly, EIB finance to utilities prioritized projects associated with TENS, which were often justified as those projects which exhibited positive externalities which could not be captured by one Member State alone.

We now analyze EIB loans in this new phase. Again, between 1986 and 2004, Italy was as the country to receive the largest volumes of finance from the EIB, with 21.2% of a total of (99 billion 2000 US\$). But there were two important differences. Firstly, Italy was no longer the EIB's poorest Member State. Secondly, the difference between finance by country had closed sharply: Spain received 15.5%; Germany 15.1% - in the throes of reunification from the beginning of the 1990s; France 12.5% and the United Kingdom 12.3%. And finance per capita makes the EIB's new approach even clearer: it is the Member States on the geographical periphery of the Single Market which received more loans; Denmark (3,287), Portugal (2,774) and Ireland (1,920). Again, differences across finance by country are much smaller than in the previous periods: countries to receive less finance per capita were Germany and the Netherlands, 873 and 546 2000 US\$ respectively.

Utilities remained the main sector for EIB investment, despite the fact their relative weight as a proportion of total investment declined, from 65.4 % in 1986 to 42.7 % in 2004. And it was those utilities best serving the development of the TENS, particularly road and rail transport, as well as those subject to liberalization and/or privatization, which attracted most finance (Knieps 1993; Pinder et al. 1995; Turró 1999). We now disaggregate EIB funding by sector in Table 3.

Table 3. EIB finance to utility projects by country and sector, 1986-2004 (million 2000US\$ and percentages of total)

Country	Transport		Energy		Telecommunications		Water and waste	
	Quantity	%	Quantity	%	Quantity	%	Quantity	%
Austria	779	0.6	591	1	450	1.2	466	1.7
Belgium	2833	2.3	565	1	570	1.6	832	3.1
Denmark	8524	6.8	3468	5.9	1910	5.3	363	1.4
Finland	1526	1.2	235	0.4	300	0.8	44	0.2
France	19198	15.4	729	1.2	430	1.2	622	2.3
Germany	6870	5.5	5633	9.5	2742	7.6	4021	15
Greece	7246	5.8	2195	3.7	786	2.2	158	0.6
Ireland	2029	1.6	1666	2.8	503	1.4	131	0.5
Italy	14433	11.6	19938	33.7	11448	31.6	3650	13.7
Luxembourg	475	0.4	76	0.1	90	0.2	0	0
Netherlands	2011	1.6	588	1	323	0.9	1602	6
Portugal	13469	10.8	3947	6.7	2416	6.7	822	3.1
Spain	27092	21.7	7268	12.3	9334	25.8	3674	13.7
Sweden	3514	2.8	1056	1.8	1027	2.8	289	1.1
United Kingdom	14750	11.8	11122	18.8	3907	10.8	10055	37.6
Total	124750	100	59077	100	36235	100	26728	100

Source: Elaborated by authors based on EIB (various years).

Transport in this period dominated by far between 1986 and 2004, reaching nearly 125 billion 2000 US\$. At the beginning of the 1990s, EIB finance destined for roads grew dramatically, most importantly, in Spain, France, Portugal and the UK. From the early 2000s, EIB finance grew sharply in inter-city and urban railway transportation, particularly in Denmark, France, Italy, Portugal and Spain. Railway transportation was, overall, the

leading sector to attract EIB funds destined for transport. Finance to the air transport sector underwent a double cycle with peaks in the 1990s: 1.7 billion 2000 US\$ in 1990 and 2.2 billion 2000 US\$ in 1999. Italy and the UK received most finance in this sector in the first cycle; Spain dominated the second. EIB finance to the energy sector was also cyclical during the 1990s. The bulk of this finance went to develop gas networks to connect Italy via the Second Trans Mediterranean Gasline. As for telecommunications, Italy and Spain attracted the bulk of EIB finance to this sector, with 31.6% and 25.8% of the total respectively. Again, finance was cyclical, reaching a maximum between 1998 and 1999 (at 10 billion 2000 US\$ across both years). As regards timing, this peak occurred just after the passage of the 1996 Directive (EC 1996a) liberalizing telecommunications, and also immediately after the privatization of Telecom Italia and the final sale of Telefonica shares, both in 1997. So, EIB finance effectively supported the transition of the two incumbents into a privatized and liberalized environment, including a loan of 1.5 billion 2000 US\$ to Telecom Italia to improve telecoms networks in the Mezzogiorno and another loan of 6 billion 2000 US\$ between 1988 and 2003 to Telefonica for network improvements. Finally, EIB finance to water and waste management also followed a cyclical pattern peaking around 1993 (2.5 billion 2000 US\$). The process of water privatization in the UK was significant here, and the UK received the bulk of finance in this sector (Byatt 2013). For example, nearly 1 billion 2000 US\$ was destined to improve the water supply in London and the North West and South West of the country. The UK water market has since emerged as consisting of private regional monopolies, owned by domestic or international firms, including Utility Multinationals based in continental Europe (Bel and Warner, 2008; Clifton *et al.* 2007). Other finance to water went to Italy (Massarutto and Ermano 2013), Germany from 1995, and Spain, between 1992 and 1994. Overall, the logic of EIB finance had become tightly linked to consolidating the Single Market, either through integrating national markets, via TENs, or by financing utilities subject to sectoral liberalization Directives.

Conclusions

Utilities exhibit special characteristics making their finance complex. Huge capital requirements, sunk costs and long maturities have meant private involvement has not

always been sufficient when financing utilities development. Public involvement has also been important. IFI played an important role in financing utilities from the post-war period.

We observed how much more is known about the contribution of both World Bank and the IMF than the EIB as regards financing utility projects. This article shed new light on the role of the EIB in financing utilities over nearly half a century. In the context of the ongoing crisis, the EIB has been criticized for not doing enough to support ailing European economies on their road to recovery due to what is perceived as an overly conservative approach to lending (Griffith-Jones and Tyson, 2012; Griffith *et al.*, 2012).

After assembling and processing all data on EIB lending over time until 2004, we selected all finance going to utilities projects in Europe. We then analyzed the data, using an analytical framework based on the work of Millward (2005) and Hausman *et al.* (2008), and anticipated we would encounter different phases in the logic of EIB finance. Firstly, an initial period where lending corresponded to a “golden age” where the role of IFI was deemed essential due to private capital scarcity, dollar shortages and so on. And secondly, from the 1970s, a new phase, consolidated during the 1980s and 1990s, of private capital excess as a result of financial globalization, wherein the continued relevance of IFI would be questioned.

We found that EIB lending can be explained generally, using these two phases, though there were some important nuances. There were three clear stages in EIB lending practice. Firstly, from 1958 to 1972, EIB finance promoted, above all, lending to the poorest regions among its members, in line with objective one of its Statutes. It functioned as a developing bank for Europe. The year 1973 brought about a rupture in EIB lending practice: oil crises and the collapse of the international monetary system led to a scenario whereby EIB finance became closely aligned with the Commission’s and Member States’ interest in achieving energy independence whilst finance was used as a sweetener for enlargement. From 1973 to 1985, EIB finance responded to these two key policy objectives. From 1986, a new pattern in EIB finance emerged. As financial globalization and utilities deregulation spread around the world, and excess private capital helped fuel questions about the

relevance of IFI, the EIB looked for a new role inside Europe. As policy-makers promoted deeper integration and the consolidation of the Single Market, whilst privatization programmes grew, EIB finance boomed, firstly, towards utilities sectors key to the TENs (road and rail transport) and, secondly, to those sectors being liberalized and/or privatized (telecommunications, energy and water, to a lesser extent). In sum, over nearly half a decade, EIB finance shifted from prioritizing utilities for regional development, to promoting an enhanced market presence in the utilities sector.

Our analysis of the changing role of EIB loans to utilities helps explain the current predicament facing the EIB. Contemporary scholars criticize the EIB for an overly-conservative approach to lending in the crisis and for not taking risks in the name of the social interest (Griffith-Jones *et al.* 2012, Griffith-Jones and Tyson 2013, Kaul 2012). Many scholars argue that what is required in times of austerity is greater finance of infrastructure in an attempt to spark growth. The EIB sits in a privileged position to do so, due to the favorable conditions it enjoys to offer finance. In the 1950s and 1960s EIB finance prioritized regional development. Back once more to the age of crisis and austerity, the EIB should look to its founding Statutes, written after war and crisis, and find the courage to finance regional development once more.

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¹ For ease, we use the term World Bank to refer in particular to the activities of one of its five institutions, the International Bank for Reconstruction and Development, IBRD.

² Examples of this literature include Bird and Rowlands (2001), who identified institutional, economic and political determinants of IMF loans at the global level; Harrigan et al. (2006), who analysed the political and economic factors guiding IMF and World Bank loans across North Africa and the Middle East during 25 years from 1975; and Morrison (2011), who studied the determinants of World Bank loans to the world's poorest countries between 1977 and 2005.

³ European University Institute archives on the EIB are at: http://www.eui.eu/flora_ahue/jsp/ahue/view_fonds.jsp?recordId=archive%3AARCH_ACCESSION%3A7325

⁴ To do so, we deploy exchange rates of the EIB annual reports (EIB, various years) and the CPI series provided by the US Department of Labor Bureau of Labor Statistics. Other alternatives such as the Atlas method (World Bank) or the utilization of the ECU have been discarded because successive EU enlargements might influence them and therefore might cause bias in our findings.

⁵ See Johnson and Turner (2007) for a discussion of the development of TENs.