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World Bank Loans and the Portuguese Electric Sector in the mid-1960s

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ABSTRACT

In the mid-1960s, Portugal took five loans from the World Bank for the development of its electric sector. Although they were just a small part of the total Portuguese borrowing at the World Bank, these five loans played an important role in the development of the Portuguese electric sector. They helped to avoid any interruption in the development of the Portuguese electric sector at a time when the country experienced a financial crisis due to the impact of the colonial war. They also helped to shape the characteristics of its productive structure, to improve management techniques of the involved firms and to open international capital markets to the Portuguese firms of the sector.

1. Introduction - Portugal and the World Bank

Portugal became the 66th World Bank member in 1961 (March 21). It may worth noticing that all the western European countries that belonged to the Organization for European Economic Cooperation linked to the Marshall Plan had joined the World Bank between 1945 and 1958 (the last one being Spain), with the exception of Switzerland (which only joined in 1992).

During the following three decades, Portugal took 32 loans amounting to 1,338.8 million dollars, most of them between 1976 and 1989. The intended uses of these loans were quite diversified (figures expressed in million dollars): development in general

240.5; power 219.9; industry 214; agriculture, forestry and fisheries 185.4; transportation 180; education 93; and urban facilities 65 (table 1).

TABLE 1
World Bank loans to Portugal

Project	Date	Amount (10 ⁶ \$)
Hidroeléctrica do Douro [Bemposta]	1963-11-06	7.5
Empresa Termoeléctrica Portuguesa [Tapada do Outeiro]	1963-11-06	5
Empresa Termoeléctrica Portuguesa [Carregado]	1965-04-29	15
Carrapatelo hydroelectric	1966-06-14	20
Carregado thermal power	1966-06-14	10
Power (06)	1976-06-24	36
Highway (01)	1976-10-19	24
Banco de Fomento Nacional (01)	1977-05-24	50
Lisbon Water Supply	1978-03-28	40
Education (01)	1978-04-27	21
Agriculture and Fisheries Credit	1978-04-27	70
Fertilizer Modernization	1979-01-04	58
Small and Medium Scale Industry Development (01)	1979-05-17	45
Highway (02)	1979-05-17	40
Education (02)	1980-05-15	40
Forestry	1980-05-27	50
Mechanical Industries	1980-06-19	44
Banco de Fomento Nacional (02)	1981-01-13	100
Petroleum Exploration	1981-06-23	20
Industrial Energy Conservation and Diversification	1982-06-03	30
Trás-os-Montes Rural Development	1982-06-10	51
Power (07)	1983-02-22	126.4
Small and Medium Scale Industry (02)	1983-04-19	40.3
Textile Industry Restructuring	1984-05-24	34.7
Manpower Training and Development	1984-06-27	30.5
Agricultural services	1984-06-27	7.4
Coal Handling Port	1985-04-23	66
Urban Development	1985-12-03	25
Highway (03)	1987-06-16	50
Technology Education	1987-07-21	32
Banco de Fomento Nacional (03)	1988-01-26	60
Trás-os-Montes Regional Development	1989-04-11	90

Source: World Bank webpage.

It may be noticed that the profile of the loans matches the periodization presented in the World Bank webpage regarding the evolution of the activity of the Bank:

- Until 1967, there have been five loans (57.5 million dollars) concentrated in the energy sector. According to the World Bank webpage, between 1946 and 1967 the World Bank acted as “builder and engineer”, mainly in the fields of power, irrigation and transportation. The priorities established by the July 1944 Bretton Woods Conference – “rebuilding the economies of countries devastated by war and increasing the economic development of developing countries” – led the International Bank for Reconstruction and Development (IBRD) to concentrate its early loans in Europe, but soon American assistance under the so-called Marshal Plan (1948) brought the second purpose to the fore.¹
- Between 1968 and 1981, there have been fourteen loans (638 million dollars), with development in general (150), industry (147) and agriculture, forestry and fisheries (120) getting the largest shares. According to the World Bank webpage, during these years the main concern of the World Bank was “to accelerate economic growth and reduce poverty” (World Development Report, 1978) with environment, rural development, water, sanitation and education being the main investment fields.
- Between 1982 and 1989, there have been thirteen loans (639.3 million dollars), destined firstly to power (188.4) followed by rural development (148.4) and industry (105) which together got the largest share. According to the World Bank webpage, between 1982 and 1994, economies in transition from central planning to market economic system and structural adjustment

¹ During this period, three subsidiaries, the International Finance Corporation (IFC), the International Development Association (IDA) and the International Centre for the Settlement of Investment Disputes (ICSID), were established, respectively in 1956, 1960 and 1965. Portugal became a member of IFC in 1966, of IDA in 1992 and of ICSID in 1984.

became the main challenges, to which the Global Environment Facility (GEF, 1991) and the Heavily Indebted Poor Countries Debt Initiative (1996) tried to respond.²

- No loans have been taken since 1989. According to the World Bank webpage, since 1995, sustainable development and global partnership have become the main challenges, to which the Comprehensive Development Framework and the Sustainable Development Goals tried to respond. At the same time, fighting corruption also became a priority in the action of the World Bank action.

Although they represented a small part of the total Portugal borrowing from the World Bank, the five loans taken between late 1963 and mid-1966 played an important role in the development of the Portuguese energy sector (more precisely the Portuguese electric sector). These loans are the focus of this paper. Section 2 briefly describes the evolution of the Portuguese electric sector until the early 1960s. Section 3 examines the World Bank loans to the Portuguese electric sector of the mid-1960s and their impact on the structure of the sector, the management techniques and the relations with international capital markets. Section 4 stresses some aspects of the later evolution of the Portuguese economy in general and of the Portuguese electric sector in particular. The analysis is based on former studies about the Portuguese economy and the Portuguese electric sector and on the archives of the World Bank.

2. The Portuguese electric sector until the early 1960s

Until the Second World War, the growth of the Portuguese electric sector was poor, mainly based on relatively small private firms or on the initiative of municipalities. An early development plan (Economic Reconstitution Law [Lei de Reconstituição Económica], 1936-1950) allocated less than 1% of its total expenditure to the electric

² During this period, a new subsidiary, the Multilateral Investment Guarantee Agency (MIGA), was established, in 1988. Portugal became a member of MIGA in 1988.

sector (Table 3). Thermoelectric production based on imported coal was the dominant technology.

The turning point came with the government involvement in the formal program established by Law 2004 of 1944, December 27 which envisaged the creation of five so-called mixed firms, calling for some private investments, but firmly controlled by the government. Three of them, HICA - Hidro-Elétrica do Cávado (Hydro-Electric of Cávado; Cávado is a river in the north of the country), HEZ - Hidro-Elétrica do Zêzere (Hydro-Electric of Zêzere; Zêzere is a river in the centre of the country), and HED - Hidro-Elétrica do Douro (Hydro-Electric of Douro; Douro is a river in the north of the country), aimed at developing the potential of hydroelectric production of the country. Another one, ETP - Empresa Termoelétrica Portuguesa (Thermoelectric Portuguese Firm), aimed at complementing hydroelectric production with new thermoelectric plants (hopes to replace imported coal with domestic coal were thwarted by the low quality of domestic coal; oil derivatives gradually replaced coal as the main fuel). The fifth, CNE - Companhia Nacional de Eletricidade (National Electricity Company), operated in the sector of transportation (mainly from the rich hydroelectric north and the centre to the relatively dry south of the country). These five firms became what was called the primary system of the Portuguese electric sector.

Financing the expansion of the electricity sector required a lot of public funds. At first, an important part of the government expenditure in the sector took the form of a participation in the share capital and debentures of some of the above-mentioned mixed firms (Table 2).

Afterwards, the First Development Plan (1953-1958) allocated more than 45% of its total expenditure to the electric sector whereas in the following years the weight of investment in electricity decreased to 26% in the Second Plan (1959-1964) and to 11% in the Interim (1965-1967) and Third (1968-1973) Plans, but the average yearly absolute amounts did not decrease (see Table 3).

Thus, in the early 1960s the development of the Portuguese electric sector was in full swing. In the 1950s, the yearly production of electricity more than trebled passing from less than 1 million kwh

TABLE 2
Government financing of electricity companies 1945-1951

Year	HICA	HEZ	CNE	Total
1945	9,000	14,000	—	23,000
1946	7,500	—	—	7,500
1947	49,500	—	7,500	57,000
1948	—	20,000	17,500	37,500
1949	95,456	—	4,170	99,626
1950	10,000	—	9,730	19,730
1951	20,000	—	—	20,000
total	191,456	34,000	38,900	264,356

Source: Conta Geral do Estado (General State Account), respective years. Figures in thousand escudos (1 thousand escudos $\approx$ 30 US dollars).

TABLE 3
Electricity in the Development Plans [Planos de Fomento]

item	ERL ¹ 1936-1950	I Plan 1953-1958	II Plan 1959-1964	Inter- mediate Plan 1965-1967	III Plan 1968-1973
Expenditure in Portugal	8,550	9,890	27,119	32,067	66,505
Investment in electricity	63	4,514	7,070	3,562	7,478
Overseas loans	0	2,200	980	1,755	? ³
Total financing ²	8,550	12,090	28,099	33,822	46,163 ³
Domestic loans	4,800	4,949	7,145	4,871	7,148
Foreign loans	0	467	3,147	4,547	2,992

¹ ERL = Economic Reconstitution Law [Lei de Reconstituição Económica].

² Total financing exceeds expenditure in Portugal proper because of overseas loans, borrowed by the central government on behalf of the colonies to finance expenditures overseas.

³ Information published about the III Plan is incomplete, especially concerning financing of expenditure in manufacturing and overseas loans.

Source: Nunes, Valério, 1983 for ERL; Ferraz, 2022 for the development plans. Figures in million escudos (1 thousand escudos $\approx$ 30 US dollars).

to more than 3 million kwh, according to the report of the World Bank mission to Portugal in 1963.

However, the early 1960s witnessed some difficulties, mainly because of the problems triggered by the beginning of the colonial war. A glimpse at the evolution of some macroeconomic data will illustrate this point (Table 4).

TABLE 4
The Portuguese economy during the 1960s: macroeconomic data

Year	Balance of public accounts		Balance of external payments		Gross domestic product current prices
	Amount	% of GDP	Amount	% of GDP	Amount
1958	+24	≈ 0	+195	+0,2	79.191
1959	-593	-0,7	+375	+0,4	84.042
1960	-1.362	-1,5	-122	-0,1	88.994
1961	-2.217	-2,4	-2.377	-2,6	92.648
1962	-2.456	-2,4	+5.041	+4,8	103.987
1963	-2.803	-2,6	+1.867	+1,7	107.438
1964	-3.117	-2,7	+3.138	+2,7	116.626
1965	-1.245	-0,9	+2.226	+1,6	135.681
1966	-907	-0,6	+4.028	+2,8	144.812
1967	-1.206	-0,7	+4.589	+2,8	162.217
1968	-1.383	-0,8	+4.416	+2,5	175.432
1969	-1.072	-0,6	+2.490	+1,3	188.229
1970	+297	+0,1	+2.225	+1,0	212.358
1971	-1.820	-0,7	+9.244	+3,8	245.768
1972	-1.409	-0,5	+7.665	+2,6	289.955
1973	-2.427	-0,7	+9.834	+2,9	342.817
1974	-9.692	-2,4	-13.215	-3,3	405.744

Source: Portuguese Historical Statistics, 2001. Figures in million escudos (1 thousand escudos ≈ 30 US dollars).

Problems are evident looking at the high deficits in public accounts between 1961 and 1964. At the same time, foreign payments might seem favourable, but they just reflect the flight of capital from war plagued overseas possessions to the safe heaven of Portugal proper. The Portuguese economy in general, and the Portuguese government in particular had to resort to foreign loans to overcome short-term difficulties. Data presented in table 3 regarding the financing of the development plans show that the use of domestic loans peaked in the Second Plan, between 1958 and 1964 reaching up to 25% while the use of foreign loans peaked in the Intermediate

Plan, between 1965 and 1967, reaching 13% (only slightly above the figure of 11% for the Second Plan).

The World Bank loans were part of those foreign loans that helped to overcome these difficulties. In particular, they helped to avoid any significant postponement of the building of power production capacity, which was crucial to the further growth and development of the Portuguese economy.

3. The World Bank loans of the mid-1960s and their impact on the Portuguese electric sector

3.1 General aspects

Despite the problems faced at that time, the World Bank appraisal of the Portuguese economy in the early 1960s was quite optimistic. It acknowledged its dual structure (traditional agricultural sector versus modern industrial sector) but emphasised its rapid growth and monetary stability. This created the ideal background for the World Bank support to further improvement. Energy supply clearly appeared as a potential bottleneck, and its development as a crucial contribution to continuation of growth.

Concerning the Portuguese electric sector, there were some doubts about two points. One was the priority given to the development of the hydroelectric potential, which involved higher investment costs (expected to be compensated later by lower functioning costs), and some risk because of the irregular rain and river flows typical of the Portuguese Mediterranean or semi-Mediterranean climate. The other was the administrative control of the technical and financial relations among the five mixed firms of the so-called primary system.

These points were at least partially acknowledged and corrected by the Portuguese government. This is an excerpt of the report of the President of the World Bank recommending the 1965 loan: "The two Bank missions which visited Portugal in 1961 and in 1963 concluded that lending for power projects would be justified provided

that the Government changed its power policy to bring about a better balance between hydro and thermal power production and improve the financial situation of the power companies. The Government did so [...].”

Thus, despite their short duration and reduced amounts, the 1963-1966 World Bank loans were important because they insured there would be no energy shortage to the development of the Portuguese economy, and they helped to shape the Portuguese electric sector in the 1960s, with regards both to hydro and thermal technologies and to the management practices of the firms of the primary system.

The characteristics of the five World Bank loans to Portugal in the mid-1960s are summarized in Table 5.

The November 1963 loans allowed to complete the Bemposta hydroelectric plant located in the border section of the Douro River (the last of three 70 MW units) and the Tapada do Outeiro thermo-

TABLE 5
Summary of the five World Bank loans to Portugal in the mid-1960s

Date	1963-11-06	1963-11-06	1965-04-29	1966-06-14	1966-06-14
Amount USD 10 ⁶	7.5	5	15	20	10
Borrower	Hidro-Eléctrica do Douro	Empresa Termoeléctrica Portuguesa	Empresa Termoeléctrica Portuguesa	Hidroeléctrica do Douro	Empresa Termoeléctrica Portuguesa
Purpose	Bemposta hydroelectric plant	Tapada do Outeiro thermoelectric plant and study of Carregado	Carregado thermoelectric plant	Carrapatelo hydroelectric plant	Carregado thermoelectric plant
Interest	4½%	4½%	4½%	6%	6%
Commission	1%	1%	1%	—	—
Commitment charge	3/4%	3/4%	3/8%	3/8%	3/8%
Amortization	47 semi-annual instalments September 1965 September 1988	33 semi-annual instalments September 1967 September 1983	34 semi-annual instalments December 1968 June 1985	31 semi-annual instalments March 1971 March 1986	23 semi-annual instalments June 1969 June 1981

Source: World Bank archives (see references).

electric unit near Porto (the last of three 50 MW units) and to study the building of the Carregado thermoelectric plant near Lisbon. The April 1965 loan was allocated to the Carregado thermoelectric plant (first unit of 125 MW). The June 1966 loans was directed to the Carapatelo hydroelectric plant in the Douro River nearer Porto (three 60 MW units) and again to the Carregado thermoelectric plant (second unit of 125 MW).

The slightly rising interest rate and associated charges reflect the evolution of the international market. The lower amounts and shorter amortization periods of the loans for thermoelectric purposes reflect the lower initial investment and their expected quicker profitability. It is significant that no loan for hydroelectric plants was granted without a simultaneous loan for a thermoelectric plant.

3.2 Improvement of management techniques

The improvement of the management techniques within the electric primary system firms (with likely spill-over to other sectors of the Portuguese economy) that the dialogue with the World Bank stimulated was already acknowledged, for instance in the report of the Administration Board of ETP in 1963: "These World Bank loans [...] have the highest significance, not only at a national level, but also for the firm itself, whose future may be considered now financially cleared and in conditions that are not usual in our country: financing plans studied and schematized for a period of the order of five years."³

3.3 Relations within the primary system

Clarification of the technical and financial relations among the five

³ Published in the official gazette (Diário do Governo), n.º 92 (III Série), 17 April, 1964 pages 1210-1213: "Estes empréstimos do Banco Mundial [...] têm o mais alto significado, não só de ordem nacional, mas também para a própria empresa, cujo futuro se considera agora financeiramente esclarecido e em condições que não são usuais no nosso país: planos de financiamento estudados e esquematizados para um período da ordem de cinco anos".

mixed firms of the so-called primary system was successively attempted by several regimes:

- At first, CNE (the transportation mixed firm) acted as an intermediary between production firms (both mixed and private) and distribution firms (mainly private or municipal) at prices established by the government. Only firms able to avoid CNE intermediation, because they produced for self-consumption or directly for distribution, remained outside the scheme.
- Decree Law 43335 of 19 November, 1960 revised the previous scheme, especially regulating a Thermal Support Fund [Fundo de Apoio Térmico] that collected revenue from the hydro production firms in good rain years to finance peaks of thermal production in poor rain years.
- Decree Law 46031 of 14 November, 1964 aimed at ensuring that HED and ETP had revenue high enough to pay for the World Bank loans and for the levels of self-financing demanded by the World Bank. This involved revenue redistribution among producing firms favouring those that had received the World Bank loans.
- Decree Law 46917 of 23 March, 1966 revised once again the previous scheme to cope with the dissatisfaction with the disconnection of revenue from supply in the transportation network brought about by the 1964 regime. Problems were mitigated, but did not disappear.

3.4 Other international borrowing

Another important development was the building of confidence, which allowed the Portuguese electric sector to take loans on the international financial market. Electricity firms acknowledged the following sources to finance their investment projects during the 1960s and early 1970s (Table 6).

The main point to stress is that foreign loans, besides World Bank loans, became a significant, although far from dominant, financing source for electric investment. While World Bank loans

TABLE 6
Financing of investment by electric firms 1961-1972

Year	Self-financing	Share issuing	Debenture issuing	Domestic loans	Foreign loans	State subsidies	Total
1961	24	23			49	4	?
1962	19	32			45	4	?
1963	11	2			86	1	?
1964	15	21			62	2	?
1965	32	21	3	17	24	3	944200
1966	10	50	8	11	19	2	1615400
1967	16	34	16	11	21	2	1907254
1968	9	38	15	8	27	3	1509583
1969	9	4	4	62	17	4	1534225
1970	10	2	0	76	7	5	1852551
1971	14	0	0	75	7	4	2282167
1972	20	3	15	53	5	4	2711642

Source: Reports of the National Association of Electricity Firms [Grémio Nacional dos Industriais de Eletricidade]. Breakdown in percentages. Total in million escudos (1 thousand escudos $\approx$ 30 US dollars).

amounted to 57.5 million dollars, between 1963 and 1973 foreign loans from other sources amounted to around 15 million dollars. According to the reports of the Administration Board of ETP, in 1968 the highest loans were taken by ETP from Lazard Brothers & C. Ltd. (representing a group of British banks; 2.6 million pounds, around 6.9 million dollars) and from Crédit Lyonnais and Hill Samuel, Ltd (around 7.8 million dollars) to finance Carregado expansion (third unit of 125 MW).

4. Later evolution

A better performance of public accounts and of the balance of payments allowed the Portuguese electric sector (and Portugal in general) to dispense with borrowing from the World Bank for nearly a decade, between mid-1960s and mid-1970s.

Meanwhile, the administrative control of the relations among the primary system firms was replaced by an outright merger in 1969, giving rise to the Companhia Portuguesa de Eletricidade (Portuguese Electricity Company). Of course, the new firm took on the responsibility for the World Bank loans previously held by Hidro-Elétrica do Douro and Empresa Termoeletrica Portuguesa (besides taking a new important foreign loan of 11 million dollars from Orion Termbank in 1974).

As private firms that remained in the sector were relatively small, the merger of the mixed firms of the primary system was a big step towards a single electricity company in the country. This became effective after the 1974 revolution, which replaced the right-wing authoritarian regime with a new democratic republic. The relatively small private firms (and Companhia Portuguesa de Eletricidade, which had remained formally a mixed firm) were nationalized in 1975, and all firms of the electric sector of Portuguese Mainland merged into Eletricidade de Portugal (Electricity of Portugal) in 1976. The Eletricidade de Portugal monopoly would hold until the liberalization of the electric sector in the 1980s and it would remain state-owned until its privatization that took place in the 1990s.

New troubles in the wake of the mid-1970 international crisis led Portugal to call again for World Bank loans as explained above, until the development process and a short-term stabilization allowed to dispense with them in 1989.

5. Conclusion

The mid-1960s World Bank loans to the Portuguese electric sector are a good and successful example of the “builder and engineer” vocation of IBRD at that time. They helped to avoid any interruption in the development of the Portuguese electric sector, given the financial problems faced by the country caused by the impact of the colonial war, and helped to shape the characteristics of its productive structure and to improve management techniques of the involved firms.

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