



## AMERICAN & FOREIGN POWER IN ARGENTINA AND BRAZIL (1926–65)

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**The article analyses the evolution, strategies, and position of the American & Foreign Power company (AFP) in Argentina and Brazil from the mid-1920s to the second post-war period. We compare the economic performance and the strategies followed by this US group in different host economies, examining the relations between the US electricity firms and the governments of both countries that explain American & Foreign Power's withdrawal from Argentina and Brazil in 1959–65. The study is based upon the annual reports and proceedings of American & Foreign Power (1923–63) and other corporate reports, government statistics, and official reports from Argentina, Brazil, and the US.**

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### INTRODUCTION

The arrival of the American & Foreign Power Co. Inc. (AFP) in Brazil and Argentina indicated the large-scale expansion of US direct investment in the provision of electricity in Latin America in the 1920s. Between 1929 and 1955, AFP was the largest US private equity investor in the region. Twenty-five years later than other major electricity firms, this US holding company established itself through brownfield-type investments in countries such as Brazil and Argentina, whose main markets were already served by electricity companies from Europe and Canada.

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This article analyses the trajectory and performance of AFP in Argentina and Brazil, focusing on the company's investment strategies and their impact on business–state relations. We intend to show the interplay between the strategies of AFP and conditions in the host economies, identifying the impact of US direct investment on electricity systems in both countries.<sup>1</sup> The analysis of conditions in the host economies is mainly based on two sets of parameters proposed by Mira Wilkins to explain decisions to invest abroad: the opportunity parameter (prospects for markets) and the political parameter (government policies, regulations, attitude towards Foreign Direct Investment [FDI]).<sup>2</sup>

Our main thesis is that the poor performance of AFP in Argentina and Brazil resulted from its late entry into the southern cone. The acquisition of electric utilities located in secondary cities just before the crash of 1929, restricted the initial investments as financial resources became scarce, preventing the reorganisation of electricity systems as had been planned by AFP. Moreover, the host economy conditions that had favoured large investments in fixed assets to develop public utilities during the first global economy broke down after the Great Depression when the gold standard collapsed. The disintegration of the global economy had a great impact on AFP subsidiaries in both countries, as currency depreciation reduced profits converted into US dollars, and government regulation arose. To face the crisis of the 1930s, the company gave priority to the Brazilian market, investing in new plants and enlarging electricity networks. By contrast, the company suspended the construction of hydroelectric and thermoelectric plants in Argentinian secondary cities. Distinct investment decisions gave origin to divergent trajectories: AFP's operating companies were expropriated in Argentina, while they expanded in Brazil, particularly when Brazil reinforced its position as a natural ally of the US during the Second World War.

The article is organised as follows. The next section reviews the establishment and evolution of AFP in Brazil and Argentina. Looking at the relation with its parent company Electric Bond & Share, the section examines the company's strategies to organise electric utilities in both markets, the impact of the economic crisis, and the performance of the subsidiaries in Argentina and Brazil in the interwar period. The following section analyses regulatory strategies and business–state relations in both countries. Finally, the article identifies the conditions that may explain the different trajectory of the holding company in Argentina and Brazil, as well as the reasons behind its decision to divest from the region in the late 1950s.

- 1 Only a few studies focus on the impact of multinationals on Latin American countries from a business history perspective. Jones, *Multinationals*, pp. 363–8. For foreign electric utilities in Brazil, see Armstrong and Nelles, *Southern Exposure*; McDowall, *The Light*, and Saes, *Conflitos do capital*. For Argentina, see Hertner, *Globale elektrifizierung*; Lanciotti, *Foreign investments in electric utilities*. For a global perspective see Hausman, Hertner and Wilkins, *Global Electrification*.
- 2 Wilkins proposes five parameters to analyse FDI: opportunity, political, familiarity, third country and finally corporate parameter. Wilkins, *Comparative hosts*, pp. 18–50.

AMERICAN & FOREIGN POWER'S BUSINESSES IN  
LATIN AMERICA (1923–50)

**From Electric Bond & Share to American & Foreign Power**

At the end of the First World War, US foreign policy underwent a change. With Europe war-weary and debt-laden, the US emerged as the great new industrial power and financial centre of the world.<sup>3</sup> South America, like many other regions, received greater attention from American businesses: increasing US investments were diversified across new activities, such as oil production, manufacturing, and public utilities.<sup>4</sup> Capital invested in infrastructure accounted for 45 per cent and 50 per cent respectively of US FDI in Argentina and Brazil (Table 1).

The expansion of US FDI in public utilities was dominated by a few large holding companies, which financed their new investments through the boom in the stock market. At the top of a pyramidal structure, financial holding companies controlled the operation of public utility holding companies, which in turn were responsible for local utilities across several countries.<sup>5</sup> In the 1920s, according to the directors of AFP, a real opportunity emerged to develop electric utilities in Latin American secondary cities. Moreover, the remodeling and expansion of electricity plants would provide a market for US electrical machinery and equipment.<sup>6</sup> This strategy, called *Unternehmensgesellschaft*, had been previously implemented by major European electric manufacturers, who created holding companies and

**Table 1. US Foreign direct investment in Argentina and Brazil, 1929 (million US dollars)**

Activity/country	Argentina	Brazil	South America
Agriculture	–	†	44
Mining	†	†	528
Manufacturing	82	45.7	170
Sales	52.9	15.8	94
Petroleum	29.8	23	512
Public utilities	147.8	96.9	348
Miscellaneous	19.3	12.2	n.d.
Total	331.8	193.6	1720

Wilkins, *The Maturing of Multinational Enterprise*, pp. 55–7. †Included in Miscellaneous.

3 Kindleberger, *World Economic Primacy*; Kenwood and Lougheed, *Growth of the International Economy*.

4 For the evolution of US FDI, see Wilkins, *The Maturing of Multinational Enterprise*, pp. 52–7.

5 In the 1920s, US investments in public utilities grew faster than in any other sector. Hausman and Neufeld, *U.S. Foreign Direct Investment*, pp. 363–4.

6 'Review of the Company affairs', American & Foreign Power, *Annual Report* (1942), p. 11.

financial trusts based in Switzerland and Belgium to finance and manage electric utilities. To this end, the Société Financière de Transports et d'Entreprises Industrielles (SOFINA), the Schweizerische Gesellschaft für Elektrische Industrie (Indelec), and Motor für Angewandte Elektrizität (Motor) were founded in the 1890s.<sup>7</sup>

Electric Bond & Share, created in 1905, was also a typical example of this strategy. In 1915–16, Bond & Share sought the opportunity to develop electricity companies in Latin America, as a result of a discussion between Sydney Z. Mitchell – chairman of Bond & Share – and representatives of General Electric Co., its parent company.<sup>8</sup> They agreed to acquire a number of gas, telephone, electricity, and tramway companies in Panama. In 1919, Electric Bond & Share moved to Guatemala, applying the same strategy to Cuba in 1922. In 1923, the company organised AFP and transferred its Latin American holdings. By 1925, Bond & Share controlled five holding companies in electric utilities, mostly operating in the US: American Gas And Electric Co. (1906), American Power & Light Co. (1909), National Power & Light Co. (1921); American & Foreign Power Co. (1923), and Electric Power & Light Corp. (1925).<sup>9</sup>

Electric Bond & Share's initial investments were located in countries close to the US, such as Panama, Guatemala, and Cuba. Business success in these low-risk investments might have given US companies the confidence to proceed into new markets in the second half of the 1920s.<sup>10</sup> Nevertheless, the group's expansion into the largest Latin American markets occurred too late in comparison with other foreign electricity companies.

In Argentina and Brazil, the entry of major international companies investing in electric utilities had occurred nearly three decades prior to the arrival of AFP. By the First World War, Buenos Aires and Rosario had awarded concessions for electricity services to large companies like the German DUEG (*Deutsch Überseeische Elektrizitäts-Gesellschaft*) and the Belgian SER (*Société d'Electricité de Rosario*), a subsidiary of SOFINA, while the Canadian Light & Power provided electricity to the most populous cities of Brazil: Rio de Janeiro and Sao Paulo.<sup>11</sup> Therefore, AFP's strategy focused on trying to win over secondary markets, such as regional capitals or towns scattered throughout the country. In Brazil, these concessions covered a number of medium and small communities in a widespread area.

7 Hertner, *German multinational enterprise*, pp. 127–28; Segreto, *Financing the electric industry world-wide*, pp. 163–64.

8 The sales subsidiary of General Electric in Brazil was created at that time. Later, GE also installed a plant. Geiger, *General Electric*, pp. 38–41. For the relation of General Electric and Bond & Share, see: Hausman, Hertner & Wilkins, *Global Electrification*, p. 171.

9 Electric Bond and Share Company. *Power for National Defense*. In 1929, Bond & Share was the second-largest electricity group in the US. United States Securities and Exchange Commission, *The Public Utility Holding Company Act of 1935, Report to the Subcommittee on Monopoly*, p. 3 For the origin of Electric Bond & Share, see Hausman and Neufeld, U.S. Foreign Direct Investment.

10 Hausman and Neufeld, U.S. Foreign Direct Investment; American & Foreign Power, *The Foreign Power*, p. 14.

11 For Argentina, see Lanciotti, *Foreign investments*. For DUEG, see Hertner, *Globale elektrifizierung*. For Light's investments in Brazil see: Armstrong and Nelles, *Southern Exposure*; McDowall, *The Light*, and Saes, *Conflitos do Capital*.

The electricity companies taken over by the group not only shared problems of financial management and technological development, but also diverse contractual terms set out in various concessions granted by local authorities. Unlike the experience in the Caribbean, the concessions acquired in Argentina and Brazil were previously owned by local groups and foreign companies – mainly British – operating with obsolete technology under different jurisdictions.<sup>12</sup> On that ground, one priority for the company was to renegotiate the concession agreements with local authorities to build a homogeneous regulatory framework that would ensure future investments. Secondly, new investments were required, as plants using obsolete technology and poorly integrated electricity grids did not generate economies of scale.

According to the 1929 report, AFP intended to take over the financial organisation of the operating subsidiaries, expanding the capacity of their plants and modernising transmission and distribution systems. Moreover, it expected to develop new forms of energy use, applying special rates to promote growth in electricity consumption and a greater variety of electric energy use.<sup>13</sup> The company especially considered new operating and accounting methods, as well as improving the relationship with local communities. In short, the modernisation project sought to develop more efficient and profitable systems.<sup>14</sup>

In Brazil, electricity supply faced two strategic challenges in the 1920s: building integrated regional systems to supply more energy to diversified consumer markets, and implementing cost-saving innovations to neutralise the effect of rising coal prices.<sup>15</sup> Hydroelectricity could be an option, but demanded huge resources to assemble the system, which were unavailable to local entrepreneurs.

In this context, AFP acquired the *Companhia Brasileira de Energia Elétrica*, the electricity distributor for Salvador (Bahia) and for the state of Rio de Janeiro.<sup>16</sup> In the state of São Paulo, AFP took advantage of a decentralised system with a few regional companies such as *Companhia Paulista de Força e Luz* (CPFL), to start an integration project through transmission lines.<sup>17</sup> This project would allow the company to replace costly and obsolete thermoelectric power plants with hydroelectric dams, more distant, but with greater power-generating capacity.

12 In Argentina, British and Argentinian electricity companies operated direct-current power stations, with low generating capacity, while German and Belgian companies rapidly switched to the alternating-current system. In Brazil, AFP faced different conditions: thermo-electrical plants increased their operating costs during the 1930s, while midsize hydroelectric plants had better conditions to overcome the Great Depression. Obsolete equipment in the former plants provoked continuous blackouts in regional capitals, such as Natal, Maceio, Salvador and Porto Alegre.

13 In particular, the company sought to introduce rate structures based on demand-charge to maximise profits. Neufeld, *Price discrimination*.

14 American & Foreign Power, *Annual Report* (1929), pp. 7–8.

15 Saes, *A Grande Empresa*, p. 257; Lorenzo, *Eletrificação*, p. 100. For the Brazilian coal scarcity: Saes, *Light versus CBEE*.

16 Barros, *Guilherme Guinle*; Honorato, *O pólvora*, and Saes, *Conflitos do Capital*, ch. 6.

17 For the expansion of AFP in Brazil: Lorenzo, *Eletrificação*, p. 90 and Cachapuz, *Panorama do Setor*, pp. 83–90.

By acquiring small and medium concessions, the company quickly gained large concession areas. Between 1927 and 1939, its market expanded from 78 to 309 cities. In this context, two subsidiaries were established: *Companhia Auxiliar de Empresas Elétricas Brasileiras* (CAEEB) – initially called *Empresas Elétricas Brasileiras* – and the *Companhia Brasileira de Força Elétrica*, both active in the state of São Paulo, an economically important coffee region. CAAEB also engaged to supply electric power to regional capitals (Table 2).<sup>18</sup>

In Argentina, the most significant change in the power sector during the first post-war period was the transfer of DUEG to the Belgian firm SOFINA, which took control of the electricity and tramway systems in the nation's largest markets by population and income. In parallel, an Italian–Swiss consortium led by CIAE (*Compañía Italo-Argentina de Electricidad*) acquired several plants located in small towns.<sup>19</sup> Both groups increased their investments to expand generating capacity and distribution networks in the coastal region of the pampas (provinces of Buenos Aires and Santa Fe).<sup>20</sup> In the rest of the country, electric utilities continued to be provided by various separate British and Argentine companies until the arrival of AFP. These companies operated low capacity hydroelectric and thermoelectric power plants.<sup>21</sup> Unlike in Brazil, hydroelectric power generation was not important in Argentina: in 1930, it accounted for only 6 per cent of overall production.

Between 1928 and 1932, AFP acquired 19 electricity companies in Argentina, and reorganised them into five regional firms, to reduce the number of concession contracts (Table 3). New commercial departments and sale offices introduced marketing strategies to foster electricity businesses. In the late 1930s the company had 58 offices and shops, whose sales of electrical equipment totalled 2 million pesos. By 1933, after eliminating common stock and updating fixed assets, the financial reorganisation of the subsidiaries came to an end.

By the mid-1930s, AFP had consolidated its position in the Argentine and Brazilian markets. In Argentina, it generated 12 per cent of overall electricity production, making it the second largest company in the sector, but still well behind SOFINA, whose subsidiaries generated 53 per cent of the country's electricity. In Brazil, the industry structure was similar: AFP accounted for almost 20 per cent, while Canadian Light grabbed 50 per cent of Brazil's electricity generation.<sup>22</sup> Although the American company remained in secondary markets, it reached a prominent position due to the volume of investments. In terms of

18 Cachapuz, *Panorama do Setor*, pp. 83–90.

19 CIAE was financed by the Swiss holding Columbus (founded by Brown Boveri, Pirelli, and the Argentinean group Devoto).

20 Only a few electric appliances were in use in the 1920s. According to the US Department of Commerce, they were quite expensive for Argentine customers. United States Department of Commerce, *Central Light and Power Plants*, p. 33.

21 As late as 1927, regional capital cities such as Santa Fe, Entre Ríos, San Juan, Salta y Catamarca, still used direct current electricity. United States Department of Commerce, *Central Light and Power Plants*, pp. 29–33.

22 Szmrecsányi, Apontamentos, pp. 132–5; Martin, *Processus d'Industrialisation*.

Table 2. American &amp; Foreign Power's subsidiaries in Brazil, 1932

Company	Subsidiaries	Main cities	Regions	Hydropower generating capacity (kW)	Thermoelectric generating capacity (kW)
Companhia Auxiliar de Empresas Elétricas Brasileiras	The Pernambuco Tramways e Power Co. Ltd.	Recife	Pernambuco		20,500
	Telephone Company of Pernambuco Limited				
	Companhia Energia Elétrica da Bahia	Salvador	Bahia	9,000	
	Companhia Linha Circular de Carris da Bahia				
	Companhia Força e Luz do Nordeste	Natal, Maceió	Rio Grande do Norte, Alagoas		2,340
Companhia Brasileira de Força Elétrica	Companhia Central Brasileira de Força	Vitória	Espírito Santo	5,240	5,672
	Companhia Brasileira de Energia Elétrica	Niterói	Rio de Janeiro	13,800	1,000
	Companhia Força e Luz de Minas Gerais	Belo Horizonte	Minas Gerais	11,400	
	Companhia Força e Luz do Paraná	Curitiba	Paraná	8,000	
	Companhia Traction Luz Força de Florianópolis	Florianópolis	Santa Catarina		
	Companhia de Energia Elétrica Rio-Grandense	Porto Alegre	Rio Grande do Sul		24,600
Companhia Brasileira de Força Elétrica	The Rio Grandense Light & Power Synd.	Pelotas			6,950
	Companhia Paulista de Força e Luz	Campinas, Ribeirão Preto	São Paulo	42,066	

Empresas subsidiárias da American e Foreign Power Co. Inc. do Brasil. *Revista Brasileira de Política Internacional*, pp. 169–78.

**Table 3. American & Foreign Power's subsidiaries in Argentina, 1932**

Main operating company	Subsidiaries	Number of cities served	Region/province	Generating capacity (in kW)	Electricity output (in thousands of kWh)	Electric customers
Compañía Central Argentina de Electricidad	Compañía General de Electricidad de Córdoba Electricidad de Alta Gracia Compañía de Luz y Fuerza de Córdoba	56	Córdoba, Santa Fe	66,373	98,259	80,417
Compañía de Electricidad del Norte Argentino	Compañía Hidroeléctrica de Tucumán	5	Jujuy, Salta, Tucumán	11,354	19,501	12,979
Compañía de Electricidad del Sud argentino		64	Buenos Aires, La Pampa, Río Negro, Chubut, Santa Fe.	34,123	53,829	69,149
Compañía de Electricidad del Este Argentino		12	Entre Ríos, Chaco	14,087	20,832	19,519
Compañía de Electricidad de los Andes SA		19	San Juan, Mendoza, San Luis.	19,487	32,866	29,631
Total		156		145,424	225,287	211,695

Revista Electrotécnica 19 (October 1933): 442-500.



assets invested abroad it was the largest electricity company in the world in 1937, with \$534 million invested in its subsidiaries in 11 countries.<sup>23</sup> The Canadian group Brazilian Traction, Light and Power (Light) came second with \$425 million, followed by SOFINA and Electrobél, with \$398 million and \$217 million respectively.<sup>24</sup>

### *Reversal of the investment scenario in 1930*

In the early years of operations, AFP issued \$50 million of funded debt securities and shares to start its expansion programme. However, 1930 marked the end of this expansion. The company needed large amounts of capital for property acquisition and construction projects that amounted to \$358 million. For both purposes the company issued another \$50 million of gold debentures, of which \$42.5 million were sold to the public. As a consequence of the international economic crisis, public financing dried up and the holding company turned to its parent company, Bond & Share, obtaining a loan of \$30 million at 6 per cent interest. In the following years, AFP was not able to service its bank loans, which amounted to \$50 million, and had to renegotiate them at higher interest rates. Bond & Share granted a new loan of \$5 million, for a total of \$35 million at a 7 per cent interest rate.<sup>25</sup>

In addition to financial restrictions, exchange rate losses and the economic downturn hit the profitability of Latin American subsidiaries. From 1933 to 1939, AFP paid no dividends, while current income was dedicated to paying loan interest.<sup>26</sup>

This situation did not improve until the Second World War. By 1941, bank debt was reduced to only \$15.5 million dollars, and the interest rate was 3 per cent. Nevertheless, the \$35 million borrowed from Bond & Share remained at a rate of 7 per cent. In 1943, bank loans were entirely repaid and the debt to Bond & Share became an overdue obligation at an interest rate of 6 per cent. In 1944, AFP resumed payments to Bond & Share, amortising \$5 million, while the remaining \$30 million became notes at 3 per cent.<sup>27</sup> Local currency devaluations and restrictions on foreign currency remittances ceased during the Second World War, when Latin American exports rose and currencies began to appreciate.<sup>28</sup> From 1940 onwards, profits recovered and the company resumed partial payment of dividends as indebtedness decreased.

23 Values are expressed in US dollars.

24 Hausman, Hertner & Wilkins, *Global Electrification*, p. 218.

25 United States Securities and Exchange Commission, *Holding Company Act 1935, Findings and opinion of the Commission*, pp. 10–4.

26 The crisis hit the U.S. electricity industry: until the end of World War II there was practically no new investment in this sector. Ebasco Services Incorporated, New York, December 1952.

27 Electric Bond & Share paid no dividends either. By 1945, 45 per cent of the revenues came from its interests in controlled companies and 55 per cent, from dividends. Electric Bond & Share Co., *Electric Bond and Share Company*.

28 United States Securities and Exchange Commission, *Holding Company Act 1935, Findings and opinion of the Commission*, pp. 13–4.

After the enactment of the Public Utility Holding Company Act, Electric Bond & Share reconsidered the form of corporate governance. Interlocking-directorates had been the main method of controlling its holding companies, but in 1935 the strategy for corporate control changed to avoid the regulations of the Securities and Exchange Commission. The financial, technical, legal, and administrative services delivered to AFP by its parent company were undertaken by Ebasco Services Incorporated (EBASCO), another subsidiary of Bond & Share.<sup>29</sup> AFP's directorship was renewed, but Bond & Share still controlled managerial decisions by its majority voting power. From 1937 to 1944, Bond & Share owned 76.8 per cent of common stock voting rights in AFP, dropping to 40.2 per cent in 1952. By the second post-war period, AFP contributed 21 per cent of Bond & Share's revenues in shares and interests, and 11.3 per cent of its revenues through dividends.<sup>30</sup>

#### *American & Foreign Power business performance, 1930–50*

The stagnation of public financing via international markets restricted the investment plan of the US holding company, particularly in Argentina. Against the backdrop of the Great Depression, the prospect of modernising management and services was compromised by financial issues and decreasing profitability in foreign currency.

In the early 1930s, the company's situation in Brazil was not as critical as in Argentina thanks to investments made by the former concessionaires in the 1920s. In the states of Bahia and Rio de Janeiro, the company could take advantage of midsize hydroelectric plants: *Bananeiras* (9,000 kW) serving the city of Salvador, and Alberto Torres (9,000 kW), and Fagundes (4,800 kW) serving the state of Rio de Janeiro. These projects only sought the expansion of existing plants, such as the enlargement of the Paraguaçu River reservoir, which served the *Bananeiras* plant.<sup>31</sup>

The *Cia Força e Luz de Minas Gerais*, serving the state capital of Minas Gerais, Belo Horizonte, maintained the hydroelectric plant *Rio das Pedras* (11,800 kW); in Curitiba, capital of Paraná, the *Chaminé* (8,000 kW) plant was completed in 1931. The northeastern capital cities, Maceio, Recife, and Natal, depended on thermoelectric power plants, which drove up the cost of services. The most that AFP could undertake was to expand those thermoelectric plants or to build smaller

29 The Public Utility Company Act aimed to minimise the adverse effects of monopoly in gas and electricity industries. Section 11b limited each system's operation to a unique integrated public utility system. United States Securities and Exchange Commission, *The Public Utility Holding Company Act of 1935, Report to the Subcommittee on Monopoly*, p. 3; United States Securities and Exchange Commission, *Holding Company Act 1935, Findings and opinion of the Commission*, p. 33; Electric Bond & Share Co., *Remarks of C.E. Groesbeck (Chairman) to stockholders*, 1937.

30 Electric Bond & Share Co., *Electric Bond and Share Company*.

31 American & Foreign Power, *Annual Reports* (1929–1939).

ones. Companies in Rio Grande do Sul faced the same scenario and their thermoelectric plants were enlarged in 1932 and 1937.<sup>32</sup>

In São Paulo, the company inherited a rather dispersed system of small hydroelectric plants, including one of the largest, the Marimbondo Hydroelectric Plant, which opened in 1928 (8,000 kW). There, the *Companhia Paulista Força e Luz* (CPFL) was concerned about connecting local plants to a new 450 km regional grid. Moreover, AFP agreed to integrate a regional grid together with Brazilian Traction – Light's parent company – in the capital cities of São Paulo and Rio de Janeiro. As a result, CPFL expanded the number of cities and population served to 259 cities and more than 3.2 million people in São Paulo state by the end of Second World War. After 1945, the company needed to accelerate new plant construction projects, such as the *Peixoto* site.<sup>33</sup>

Consequently, the performance of AFP in Brazil was satisfactory in the 1930s. Despite some difficulties in the Northeastern capitals, the concessions in São Paulo ensured economies of scale and better financial results than those in Argentina. From 1934 to 1944 the number of consumers increased from 202,000 to 343,000, while electric power production almost doubled from 395 million kWh to 798 million kWh.<sup>34</sup> On the upside, taking advantage of the improvements made by earlier concessionaries, it did not need to invest in costly works such as new hydroelectric plants. In 1929–39, its revenues fluctuated around an average of \$10 million, despite the devaluation of the Brazilian currency. During the war, the exchange rate recovered and revenues increased, reaching over \$19 million in 1945.<sup>35</sup>

In Argentina, the 1929 plan to reorganise the financial structure, review the concessions, and promote sales of electrical equipment was ongoing, but the \$7.5 million investment project to expand the systems was never carried out.<sup>36</sup> Nevertheless, profitability of the Argentine subsidiaries increased both in local currency and US dollars after 1935. Income in US dollars grew at a moderate rate (3 or 4 per cent) in 1934–37, but rising fuel costs and wages affected operating profits from 1937. At the outbreak of the Second World War, the appreciation of the local currency caused operating and net revenues to boost; and so did profits. The revenues of Argentinian subsidiaries continued to grow until 1946, but as shown in Table 4, the annual growth rate began to slow down in 1943, when the military regime paved the way for expropriation of AFP's subsidiaries.

Before the expropriations, AFP's businesses in Argentina were stable but unsatisfactory, insofar as the problems encountered in the diagnosis of 1929 remained unresolved. Despite the improvement of transmission lines to connect small cities,

32 American & Foreign Power, *Annual Reports* (1929–1939).

33 A 20,000 kW expansion project had been planned by the company in 1941, but it could not be developed until the second post-war. American & Foreign Power, *Annual Report* (1941), p 5.

34 Cachapuz, *Panorama do Setor*, p. 144.

35 American & Foreign Power, *The Foreign Power*.

36 The company built plants in small towns such as Junín, Villa María y San Francisco, and expanded the generating capacity of power plants in Tucumán, San Juan, Mercedes y Mar del Plata. American & Foreign Power *Annual Reports* (1930–1941).

**Table 4. American & Foreign Power: segregation of gross earnings of operating subsidiaries in Latin America. (US currency at par exchange)**

	Argentina	Brazil	Mexico	Chile	Cuba	Total all subsidiaries
1929	4.085.237	10.990.920	8.712.591	11.695.321	18.179.657	63.709.207
1930	14.221.420	14.310.684	9.655.099	12.780.597	18.023.473	84.657.214
1931	9.708.387	9.315.939	7.909.877	10.716.507	15.259.032	65.426.170
1933	10.152.848	11.191.329	4.729.330	8.090.688	10.590.232	57.513.332
1935	8.520.692	9.274.655	6.442.700	5.276.841	9.909.735	54.837.650
1937	10.760.854	12.054.279	7.280.914	5.927.932	11.748.581	62.162.264
1939	9.294.019	10.563.632	5.985.592	6.187.585	11.958.602	58.543.446
1941	10.028.096	11.945.044	6.669.909	6.769.555	14.131.088	59.234.838
1943	12.423.105	15.095.165	8.032.887	7.712.888	17.503.519	72.414.900
1945	12.383.149	19.138.155	9.666.785	9.748.556	21.437.777	86.257.222
1947	12.441.014	27.899.248	12.308.459	14.241.986	27.066.704	109.469.622
1949	9.787.302	36.901.797	11.250.469	23.073.634	34.295.016	135.331.658
1951	7.197.089	44.650.021	13.530.123	29.075.450	42.066.130	160.700.000
1953	10.251.826	53.590.386	16.976.641	55.780.213	51.056.558	218.896.614
1955	11.504.850	37.587.975	16.421.760	25.211.540	59.883.000	188.400.000
1957	6.805.498	49.950.000	22.984.000	28.284.000	73.984.000	214.735.000
1959	–	25.470.000	29.517.760	28.198.000	56.712.750	216.729.668

Source: American & Foreign Power, *Annual Report* (1928–60).

the systems operated by this company did not develop economies of scale, contrasting with those controlled by CIAE and SOFINA. Few investments were made to increase generating capacity, compared with those in Brazil and other Latin American countries. Consequently, electricity supply was poor, leading to numerous conflicts with local authorities.

From 1929 to 1945, the earnings of AFP's subsidiaries evolved similarly in Latin American countries, excepting for Chile: stable revenues until the mid-1930s with minimal growth afterwards. The poor performance of company's businesses in 1931–46 resulted from its low investments as the Great Depression blocked the ability to raise capital. Moreover, towering indebtedness with banks and with the parent company Electric Bond & Share at high interest rates, in addition to currency exchange losses in Latin America, limited the resources for self-financing. The stagnation of investments in electricity systems is confirmed by the evolution of the total generating capacity by country, without representative increase before 1945.

In 1946, after a decade of stagnation, generating capacity began to increase in all countries, with the exception of Argentina, where expropriations stopped the company's investment of capital. As a result, in 1955, the generating capacity of AFP's subsidiaries in Argentina was 33 per cent lower than in 1932, even though the number of customers served and the electricity production were slightly higher, as shown in Table 5. While the Brazilian subsidiaries expanded their generating power capacity in almost 95,000 kW, and the Mexican and

Table 5. American &amp; Foreign Power statistics by country, 1955

Company/group of companies by country	Estimated population served (1000 inhab.)	Electric customers	Installed generating capacity (kW)	Electricity output (1,000 kWh)
ANSEC Group/Argentina	2,151.8	262,080	96,658	325,520
Empresas Eletricas Group/Brazil	7,395.9	743,487	314,465	1,951,840
Cia. Chilena de Electricidad/Chile	2,401.4	286,426	165,198	1,142,689
Cia. Colombiana de Electricidad/Colombia	848.2	78,438	65,379	276,945
Cia. Nacional de Fuerza y luz/Costa Rica	384.1	39,758	39,170	197,065
Cia. Cubana de electricidad/Cuba	2,753.6	647,492	266,915	1,199,491
Empresa electrica del Ecuador/Ecuador	331.5	37,103	19,835	83,720
Empresa electrica de Guatemala/Guatemala	486.3	46,980	20,170	98,560
Impulsora Group/Mexico	2,804.4	348,962	203,832	1,543,760
Cia. Panameña de Luz y Fuerza/Panama	272.2	52,508	29,220	104,725
Cia. Anonima Luz Eléctrica de Venezuela/Venezuela	744.6	100,179	1,990	264,351
Total Latin American countries		2,643,413	1,222,832	7,188,666

American & Foreign Power, Annual Report (1955), p. 48.

Chilean around 38,000 and 25,000 kW, respectively, the Argentine subsidiaries expanded by only 8,500 kW in the post-war period, before the expropriations.<sup>37</sup> The high expectations based on the expansion of the Brazilian electricity market, as well as the strategic alliance between Brazil and the US, reinforced by the Abbink mission in 1948, paved the way to new investments in the first half of the 1950s.<sup>38</sup>

As of 1950, capital expenditures in the electricity power industry revived, especially applied to renewal, mechanisation, and the installation of high capacity generating units. In this period a new financing model for the electricity industry emerged, based largely on long-term loans with international banks and in a much more cautious manner, by issuing securities. The revival of investments increased revenues for the Latin American subsidiaries (excluding Argentina), which reached their peak in 1953. However, the expropriation of the Cuban subsidiary in 1960, followed by the expropriations in Brazil and the sale of Mexican subsidiaries put an end to all favourable expectations. Operating revenues fell by half, marking the final chapter of the group's venture in Latin America.<sup>39</sup>

## AMERICAN & FOREIGN POWER AND THE STATE: ARGENTINA AND BRAZIL, 1939–60

### **Government regulation of foreign utilities after the Great Depression**

American & Foreign Power's directors could not imagine that the effects of the Great Depression on Latin America economic policy would be so painful and long lasting. Their main concern was that currency devaluation would damage the sustainability and profitability of their investments. Moreover, governments restricted currency remittances from Argentina, Brazil, Chile, Colombia, Costa Rica, and Ecuador. In this context, foreign companies and governments clashed, but the timing and patterns of government intervention differed greatly in Brazil and Argentina.<sup>40</sup>

Brazilian electricity policies shifted during the administration of Getúlio Vargas in 1930–45. All decisions about electric utilities were centralised and transferred from the local authorities to the Federal government, concessions for perennial water courses and waterfalls were suspended, and the exploitation of hydropower was undertaken by the central government. In 1932, Minister Juarez Távora created a board for issues concerning hydropower exploration and regulation of water resources at the *Departamento Nacional de Produção Mineral* [National

37 American & Foreign Power, *Annual Report* (1949), p. 5.

38 For the relationship between Brazil and US, which involved military and economic aid, see Hilton, *United States and Argentina*, pp. 158–180.

39 American & Foreign Power, *Annual Report* (1960).

40 Lanciotti and Saes, *La regulación de los servicios*.

Department of Mineral Production].<sup>41</sup> It was, however, the suspension of the gold clause (Decree No. 23501, 1933), which confronted the interests of foreign utility companies, as the previous adjustment of electricity rates to gold, reduced the effects of currency devaluation on the company's current incomes in US dollars. In 1934, with the new Brazilian constitution, the Water Code – the first national legislation on water and electricity – was finally enacted.<sup>42</sup>

These regulatory policies clearly upset the electricity companies, especially the foreign ones. However, the regulation of electricity rates and the restrictions on private access to waterfalls – enforced from 1937 to 1942 – did not threaten the concessions managed by Light and AFP. The role of government shifted only through the creation of CHESF (*Companhia Hidrelétrica do São Francisco*) in 1945, to overcome the electricity deficit in the surrounding area. In parallel, other regionally oriented state-owned enterprises were created from the late 1940s to the 1950s.

In Argentina, on the other hand, local concessions prevailed in the interwar period, except in those provinces such as Córdoba and Tucumán that relied on water resources (whose use was regulated by provincial governments).<sup>43</sup> Local concessions set minimum standards of service provision and maximum rates adjustable to the gold price. Electricity companies were exempt from paying import taxes for raw materials and equipment. The impact of the 1930 crisis on electricity rates led to the first attempts at regulation by local governments. Municipal commissions for electricity companies were created in the cities of Buenos Aires and Rosario, as well as in the provinces of Tucumán and Córdoba. Based on the criteria of the US Federal Trade Commission, assets were overvalued and excessive profits made. Moreover, the quality of service was poor. Municipalisation was recommended; however, the regulatory framework did not change until 1943.

The military, which seized power in 1943, changed the regulatory strategy for electric utilities. A decade after the first regulations in Brazil, the Argentine government took more radical actions. The national government created the *Dirección Nacional de la Energía* [National Agency of Energy], responsible for overseeing the production and distribution of energy and promoting the development of renewable energy sources. The Ministry of Interior also established two investigative commissions charged with reviewing foreign power concessions, and ordered rate reductions of around 20 per cent, while suggesting the possibility of expropriating public utility assets.<sup>44</sup>

Electricity policy was integrated with the planning of the National Post-War Council (1944), which gave priority to the development of hydroelectric

41 Lima, *Estado e energia*, pp. 32–3; Cavalcanti, *Concessões de energia*.

42 In 1939, the National Council of Water and Power (CNAEE) was formed following the US Federal Power Commission. Corrêa, *O setor de energia elétrica*, ch. 3.

43 A typology of regulatory strategies for electricity monopolies, in Gómez Ibañez, *Regulating Infrastructure*, pp. 18–36.

44 Decrees 4910 and 12648, 1943.

production to reduce the fuel consumption of thermo-electrical plants.<sup>45</sup> The transition from local concessions to centralised management of resources also motivated the creation of the National Water Administration, an agency responsible for coordinating water use throughout the territory. Implementation of the plan was the responsibility of a new agency, the *Dirección General de Centrales Eléctricas Estatales* [General Department of State Power Plants], whose mission was to plan, construct, and operate electric power plants and distribution networks.<sup>46</sup>

The inquiry commissions recommended suspending the legal status of concessions and expropriating the foreign subsidiaries. However, the national government opted to delegate the decision to expropriate to provincial governments. From 1943 to 1946, the provincial authorities of Tucumán, Jujuy, Corrientes, Mendoza, Santa Fe, Entre Ríos, Córdoba, and San Luis expropriated the plants of AFP.<sup>47</sup> The reasons given were the problematic status of the plants, whose obsolete equipment prevented efficient provision of service while limited capacity left them unable to meet demand.<sup>48</sup>

By 1946, 11 of the 14 electricity companies expropriated in Argentina were AFP subsidiaries. The expropriation mainly affected small plants in the north and centre of the country; however some larger plants were expropriated as well, such as those located in the province of Córdoba. Notably, large thermal power plants located in the most populated regions of the country, belonging to SOFINA and the Italian–Swiss group, were not expropriated. Expropriation decisions were based on the government project to build new hydropower plants in secondary cities to stimulate the growth of regional economies and promote the use of water resources to reduce fossil fuel consumption.<sup>49</sup> Moreover, the compensation for expropriated assets was substantially less than the potential costs of expropriating the large plants owned by SOFINA in the most dynamic areas.

To sum up, expropriations mainly affected the subsidiaries of AFP for the following motives: first, US companies were less capitalised than their competitors, so the government could afford the compensation for expropriation. Second, as AFP did not invest in expanding generating capacity or enlarging networks, the provision of electricity in the cities covered by this company was very poor, contrasting with the service provided in the pampean region. Therefore, conflicts between the electricity companies and users rose in the 1930s, and worsened during the Second World War. Third, US companies operated in secondary cities and in large rural areas, whose electrification became a priority according to the industrialisation programme of the Argentinian government. Fourth, Argentine

45 The Council reported directly to the vice presidency of the country and was led by Colonel Juan Domingo Perón. Villarruel and Berrotarán, *Un diagnóstico de la crisis*.

46 Dirección General de Centrales Eléctricas del Estado, *Memoria de Centrales Eléctricas*, p. 1.

47 El Informe Rodríguez Conde, *Informe de la comisión investigadora*.

48 Archivo General de la Nación (AGN), Legajo 664, Carpeta 67- Cámara de diputados. *Comunicación sobre concesiones eléctricas*, Decretos 1086 y 1093; American & Foreign Power, *Annual Report* (1943), p. 9; (1944), pp. 5–6; (1945) p. 7; (1946), p. 7; (1947), p. 6. For the expropriations, see Lanciotti, *Del estado garante*.

49 Dirección General de Centrales Eléctricas del Estado, *Memoria de Centrales Eléctricas*, pp. 1–4.



**Table 6. Latin America: international loans authorised for the electricity sector by May 1956 (thousands of dollars)**

Countries	To state-owned companies		To private companies		Total
	Eximbank	IBRD	Eximbank	IBRD	
Brazil		57,300	47,552	91,390	196,242
Colombia	4,990	13,030	297		18,317
Costa Rica	3,523				3,523
Cuba			24,004		24,004
Chile	11,137	13,500			24,637
El Salvador		12,545			12,545
Mexico	23,150	53,800	24,853	26,000	127,803
Nicaragua	600	7,950			8,550
Peru	444				444
Uruguay	12,000	31,900			43,900
Venezuela			6,854		6,854
Total	55,844	190,025	103,560	117,390	466,819

Comisión Económica para América Latina, *La energía en América Latina*, p. 82.

neutrality in the Second World War strained the already tense diplomatic relations between the US and Argentina, making the US companies the main target of nationalistic positions.<sup>50</sup>

While the Argentine provincial governments expropriated electricity plants, the Brazilian government followed a policy of rapprochement with the US. By 1947, AFP and the government had the same view: it was time to reinvest in the electricity sector and review rate structures to ensure higher revenues. The difficulty of raising funds in the financial market led to the strategy of seeking resources from international lending institutions, such as the International Bank for Reconstruction and Development (IBRD) and the Export-Import Bank of the United States (Eximbank).<sup>51</sup> From the end of the Second World War to 1956, both institutions invested more than \$450 million in the Latin American electricity sector, especially in Brazil and Mexico (Table 6). As a result of the expropriations of US subsidiaries, Argentina was denied access to these sources of capital.

In Brazil, Light received over \$91 million from IBRD, while AFP received \$47 million from Eximbank. State enterprises together received \$57 million, which was invested in CHESF and other state-owned companies in Rio Grande do Sul (CEEE), Minas Gerais (Cemig), and São Paulo (CESP). In 1948, AFP's expenditures came to \$6.2 million, distributed among eight subsidiaries and

50 A comparative analysis of SOFINA and American & Foreign Power in Argentina, in Lanciotti, *Foreign Investments*. For the rivalry between US and Argentina, see Di Tella and Watt, *Argentina between the Great Powers*.

51 American & Foreign Power, Review of Company's progress and its future Outlook, *Annual Report* (1947).

funding projects like CPFL's Carioba Thermal Power Plant (30,000 kW) in São Paulo state. The amount of the loan would jump to more than \$40 million by 1952, when CPFL became responsible for a \$30 million investment for the construction of the *Peixoto* Plant, one of the largest in the world at that time, allowing the subsidiary to increase its generating capacity by 65 per cent. The plant was inaugurated in 1957 and it reached an annual production of 192,000 kW by 1960.<sup>52</sup> The increase of net electricity output was also helped by the expansion of state-owned companies that supplied electricity to AFP's subsidiaries, such as the Paulo Afonso hydroelectric plant in northeastern Brazil.<sup>53</sup>

The situation of AFP in Brazil and Argentina was quite different in the 1950s: while the uncertainty already pointed to a definitive exit from Argentina, Brazil offered the prospect of continuity, especially after the new investments. Both governments had expanded their participation in the electricity sector, through new laws and agencies; however, US capital still had an important share in the project of the Brazilian government, while it was distant to the Argentine project. The trajectory of AFP in both countries varied upon the investments made by the company and its relationship with national governments, mediated by active American diplomacy.

### **The end of an era: expropriations in Argentina and Brazil**

The fate of the Argentine holdings was clear by the end of the 1940s. In 1944–46, AFP had brought suits in the provincial courts, claiming that subsidiaries had been deprived of current income and compensation was inadequate. The appeals reached the Supreme Court, which rejected them in 1946. Subsequently, AFP stopped investing in Argentina and proposed to sell all its properties to the government.<sup>54</sup>

The regulation strategies applied by the military government continued during the administration of Juan Domingo Perón (1946–52). The electrification project was included in the First Five-Year Plan, which proposed developing hydroelectric potential, expanding the generating capacity, coordinating energy policy between the federal, provincial, and local authorities, and assuming direct management of electric utilities when needed. To this end, the state would build 12 thermal power plants and 47 hydroelectric plants, a planned investment of \$417.5 million along 15 years. By 1951, the National Energy Company, a state-owned company that replaced the former agency, administrated 51 plants, with a total capacity of 83,643 kW.<sup>55</sup>

52 Comisión Económica para América Latina, *La energía en América Latina*, appendix X.

53 American & Foreign Power, *Annual Report* (1955), p. 19.

54 American & Foreign Power, *Annual Report* (1944), pp. 5–6, (1945) p. 7; (1946), pp. 7–8; (1947), p. 6; (1949), pp. 7–8.

55 AGN, Fondo documental Secretaría de Asuntos Técnicos de la Nación 1946–1955. Legajo 456,

Competition with state-owned plants was seen by AFP as a further problem. According to the company reports, the expansion of energy sales in Argentina would not compensate for losses caused by the expropriation of plants in Santa Fe and Córdoba.<sup>56</sup> Incomes from non-expropriated subsidiaries barely covered the operating costs, since rates were frozen until 1949. Moreover, the 1949 Constitution provided for acquisition of public services by the State either by purchase or expropriation; subsequently, the company again proposed to sell all its assets to the government. From 1950 on, the US subsidiaries in Argentina faced deficits.<sup>57</sup>

Negotiations moved forward in 1953, when ‘the enactment of a new foreign investment law providing for improved foreign exchange treatment for new foreign investments’ was announced.<sup>58</sup> The agreement was finally signed by the administration of Arturo Frondizi in 1958, along with a cooperation programme between US companies and the Argentine state oil company *Yacimientos Petrolíferos Fiscales* (YPF). According to it, all the subsidiaries would be transferred to the government, and their assets valued by the Supreme Court and four experts appointed by the executive branch, the IBRD, the Chief Justice, and AFP.<sup>59</sup> A year later, AFP transferred its properties to the Argentinean government, which paid \$2.5 million and agreed to pay the remaining amount of \$45.3 million in 13 years.

In Brazil, on the other hand, optimistic business expectations prevailed until 1958. The 1956 report celebrated the Juscelino Kubitschek government’s Target Plan, aimed to develop the country’s infrastructure.<sup>60</sup> Kubitschek facilitated the entry of foreign capital, showing a strong interest in developing the Brazilian energy sector.<sup>61</sup> Hence, in 1956, the company proposed a 5 year project to expand electricity generation, which would cost \$250 million, increasing the installed capacity in 421,500 kW.<sup>62</sup> At that time, AFP’s investments in Brazil accounted for 38.8 per cent of its total investments.<sup>63</sup>

In the second half of the 1950s, AFP came to a turning point: increasing income was drained by the increase of general expenses.<sup>64</sup> According to the directors, profits were less than expected, in consequence of inflation, currency devaluation – especially after October 1953 – and the effects of the Water Code, which kept

Planificación Primer y Segundo Plan Quinquenal. Proyectos y objetivos; Legajo 395, 2do Plan Quinquenal, Plan de Energía Eléctrica (anexos). Legajo 664, Memorandum de la Dirección de Economía y Estadística del 6 de setiembre de 1946.

56 American & Foreign Power, *Annual Report* (1948), pp. 5–6.

57 American & Foreign Power, *Annual Report* (1947), p. 6–8; (1950), p. 7; (1952), p. 16.

58 American & Foreign Power, *Annual Report* (1953), p. 15.

59 American & Foreign Power, *Annual Report* (1958), pp. 18–19.

60 President’s Letter. American & Foreign Power, *Annual Report* (1956), p. 3.

61 Lessa, *15 anos de Política Econômica*; Orenstein and Sochaczewski, *Democracia com desenvolvimento*, p. 179.

62 The plan was not entirely fulfilled: 156,900 kW were installed according to the company due to the non-commitment of BNDE. Cachapuz, *Panorama do Setor de Energia Elétrica no Brasil, Memória da Eletricidade*, pp. 238–42.

63 American & Foreign Power, *Annual Report*, (1954–1960).

64 American & Foreign Power, *Annual Report*, (1957) p. 27.

the rate of return of electricity companies at their historical values in local currency, restricting the automatic adjustments of rates. As a result, the average revenue did not keep up with inflation.<sup>65</sup> Thus, new investments were needed, which suggested seeking additional financial resources in the Brazilian capital market.<sup>66</sup>

Even though the company provided electricity throughout most of Brazil, in 1959 the government of Rio Grande do Sul expropriated *Companhia de Energia Elétrica Rio-Grandense*. The conflict was caused by the nationalist leanings of the state governor who, questioning the services of the US company, took over the subsidiary for the amount of 1 cruzeiro!<sup>67</sup> The case was appealed to the federal government but saw no definite solution. In 1962, new disputes emerged in the city of Recife. The local government claimed that the company's assets should be reverted to the government of Pernambuco at the end of the concession. From the company point of view, uncertainty would persist even if the expropriations were reversed by the Federal government. Moreover, at that time the company faced significant losses abroad, especially those resulting from the 1959 Cuban revolution. Its strategy shifted to rapid withdrawal from remaining concessions, and minimisation of losses.

Seeking support from the US government, AFP alleged that it had suffered considerable losses – in Cuba, expropriations amounted to \$153 million – and needed to reduce the risk of further expropriations, as seemed likely to occur in Brazil. Directors requested the government to sell 11 electric utilities, as it had done in Mexico, taking advantage of the fact that the João Goulart administration (1961–64) was undergoing serious financial difficulties, thereby requiring US financial support.<sup>68</sup> President Goulart wanted to roll over existing debts with the US, so the US government conditioned the negotiations to an agreement with AFP.<sup>69</sup> In fact, the company's requests were not met during the Goulart administration, which fell to a military coup in 1964. The report for the sale of AFP's subsidiaries was presented by the Scandinavian Engineering Corporation, which was responsible for placing them under government trust, and signed the agreements for the expropriation on 12 November 1964.<sup>70</sup> The assets were to be transferred to the newly formed state-owned company *Eletrabras*, and their valuation proved to be a victory for the interests of the US holding syndicate.

65 In 1939–1955, the average cost of living in São Paulo increased to more than 900, while the average revenue per kWh in Cruzeiros increased to almost 225. American & Foreign Power, *Annual Report* (1955), p. 18.

66 The Brazilian Bank for Economic Development, created in 1952, contributed to finance the American company at that period. American & Foreign Power, *Annual Report* (1957) pp. 3–4.

67 Cruzeiro was the Brazilian currency and one Cruzeiro meant that the company was worthless. Brizola, L., *A Compra das subsidiárias*.

68 Bandeira, *O governo João Goulart*.

69 John F. Kennedy Library, *Conversation between John Kennedy and João Goulart*, p. 1.

70 Electricity Archive, Sweden. Scandinavian Engineering Corporation. Report on the findings and determinations specified in clause eighteen of the contract of sale between Eletrabras, American & Foreign Power, and BEPCO.

In the 1960s, the company strategy shifted, as shown by the agreements between AFP and both governments to invest in state-owned oil companies such as YPF and Petrobras. Despite their divergent trajectories, Argentina and Brazil seem to have typified an era of US investments in the electricity sector in Latin America.

## CONCLUSION

American & Foreign Power's trajectory reveals the fluctuating trend of US direct investment in Latin American electric utilities. The company's strategy aimed at expanding electric utility systems to 'provide a market for machinery and equipment manufactured in the United States of America in place of products previously obtained from Europe'<sup>71</sup> was similar in both countries at the beginning. However, the crisis of 1930 limited the investments to the Brazilian market, which had better prospects than the Argentinian market in terms of size and economies of scale. Consequently, the performance of AFP began to diverge in both host economies. In Brazil, where investments were made, the company could negotiate with the government over the development of new projects and further investments despite the regulations introduced during Getulio Vargas' administration. On the contrary, in Argentina, the company did not develop the systems according to the concession terms, giving place to a number of conflicts with the government.

The investment strategy of the company not only depended on the good prospects for electricity markets, but also on the financial restrictions caused by the crash of 1929, followed by the change in political conditions of the host economies.<sup>72</sup> As the financial market turned down, the depreciation of the exchange rate made profits drop and new regulatory strategies arose. The company decided to defer the expansion of investments in Brazil and to suspend plans for Argentina. After the Second World War, US foreign policy towards Brazil and Argentina consolidated the different strategies of AFP. The diplomatic friction between US and Argentina contrasted to the cooperation with the regime of Getulio Vargas in Brazil. Expropriation of AFP's subsidiaries made the Argentine–American relationship even worse.

Early company goals, aimed at the reorganisation of Latin American subsidiaries, were only partially achieved. The revision of the concessions to homogenise the legal status of utility companies in different provinces and municipalities failed. Despite some progress in restructuring the capital of subsidiaries and the implementation of modern accounting methods, the plans for financial organisation and technical modernisation of electric utilities, which relied on huge investments, were slowed by the financial crisis. The crisis of 1930 marked the end of

71 Review of the Company affairs, American & Foreign Power, *Annual Report* (1942), p. 11.

72 Wilkins, *Comparative Hosts*, pp. 18–50.

public financing of electric utilities; thereafter, public utility holding companies consolidated their dependence on the controlling parent company by increasing their debt at high interest rates. At the same time, the end of the gold standard, followed by the devaluation of Latin American currencies, increased the companies' financial costs. During the first decade of operations, operating incomes increased along with the expansion of the Argentinean and Brazilian economies; however, financial losses pushed profits in US dollars down.

The good prospects for AFP's global businesses declined after the crisis: the performance of the company varied with the interplay between corporate strategy and host economies' conditions. American & Foreign Power could rely on the medium size hydroelectric plants operating in Brazilian regional markets, while the low capacity plants acquired in Argentina required high investments to produce adequate returns. As the company's original plan was not implemented, the political parameters became more significant to explain the controversial relationship with the government and the poor performance of the firm.

After 1945 a new form of financing based on international bank loans began to emerge, while national governments broadened their participation in the electric power sector. The availability of capital to modernise electricity systems renewed business expectations of success. In that context, the Brazilian subsidiaries of AFP increased their generating capacity and extended their systems, obtaining higher incomes. Cooperation between the Brazilian and US governments favoured this expansion, as the company could improve its services taking advantage of the international loans available for the closest US allies in the second post-war period.

In contrast to Brazil, political parameters impacted negatively on AFP businesses in Argentina. The poor quality of the services and the insufficient electricity supply, paved the way to the expropriation of several plants in 1943–48. The tense relations between the US State Department and Argentina's military government hindered any negotiations between the parties and the company decided to sell its properties in Argentina. The claim for adequate compensation remained unresolved for more than a decade. As a result, Argentina did not get international funding until the end of 1950s, and the generating capacity of the Argentinian electricity system lagged behind other Latin American countries.

The close relationship between the Brazilian and US government could not prevent the emergence of further difficulties in the late 1950s. The leading role of Latin American governments in electricity systems, which included the confiscation of AFP properties in Cuba and the subsequent expropriation of some subsidiaries in Brazil, along with current losses from the exchange rate, grounded the firm's decision to withdraw from the region. The company sold its properties to the Mexican government and signed an agreement with the governments of Argentina and Brazil, to pay off the debt of expropriated companies, transferring the remaining assets to the state-owned electricity enterprise.

Overall, we conclude that in the long run AFP's revenues fluctuated substantially, and that the average performance was not entirely satisfactory. Business

performance was greatly affected by changes in the international financing conditions and in the regulatory framework, moving from concession contracts to discretionary regulation. Nevertheless, the main reason to explain the poor performance of this American company was its late entry into a market controlled by European and Canadian holding companies, which had been operating electricity companies in more developed areas since the end of the nineteenth century. From 1930 to the second post-war, AFP followed a venture capital investment strategy: its investments were reduced to a minimum and technology transfer was low. Therefore, the systems managed by this company hardly increased the generating capacity of its plants and they did not benefit from economies of scale. As the payment of loan interests was the top priority, the development of the electric power systems actually depended on the investments made by the former companies in Argentina and Brazil. Previous investment patterns determined the different trajectories of AFP's subsidiaries in the inter-war period, which certainly influenced business-state relations at the end of the Second World War.

This paper also shows that the interests of Electric Bond & Share, the parent company of AFP, hindered the expansion of low-cost and high-quality electricity services in Latin America before 1945. In this sense, national governments seeking to intervene in the conflicts between electricity companies and consumers began to discuss the extent of foreign ownership and control of electric utilities. The analysis of these conflicts in Argentina and Brazil also highlights how discussions between the company and the government were not confined to business issues but encompassed diplomatic efforts, as the financing of new ventures was conditional upon solving the problem of expropriation.

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