bulletin

Banks build

2024

eabh (The European Association for Banking and Financial History e.V.)

Image: Gdynia. New Baltic Harbour (1925)

bulletin

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Introduction

Financial institutions play a central role in the building and development of regions and countries for the benefit of the societies that exist there. When new countries were created, independence established, or peacetime re-building started, financial institutions were there to make it happen. But you cannot build effectively without a good plan and a strong foundation, and the papers in this volume show how crucial archival institutions are to the quality of that foundation. These papers demonstrate that archival institutions and the holdings they care for play an instrumental role in the act of development, providing a blueprint for understanding past decisions, outcomes, and innovations. Archival institutions make that evidence available widely for the benefit of society now and for future generations. In the process, archives help us to examine our past, understand where we've come from, and discover how we can move forward with greater insight and success.

The papers in this volume are different from one another, representing different parts of the world, different time periods, and use different types of primary and archival sources. However, a commonality emerges via three key concepts. First, the concept of building is not static or immovable. The act of building, as seen through the lens of the past, is dynamic and ever evolving: a fluid process that responds to shifting circumstances and changing ideas. The documentary evidence preserved in archives reveals that building is constantly in motion. Whether it be a system of canals in Spain, a stabilizing institution during geopolitical disruption in Poland, or the structures of a European university, each form of "building" depends on understanding the ever-changing nature of the environment. These are not just constructions of physical infrastructure but also shifts in the values, priorities, and resources available to societies at different points in time. Archives preserve these dynamic stories.

Another concept that emerges from the papers in this volume is that building often represents a leap of faith. The expression "If you build it, they will come" captures the hopeful essence of this risk. One successful risk you will read about in this volume reveals the history behind the transformation of an industrial area in Germany. However, investments in building are often undertaken without certainty of success. Some of these papers illuminate building works that failed to deliver on their promise, leaving a legacy of lessons about planning, expectations, and the realities of large-scale investment. Archival records show how such failures become part of a larger narrative—one that is not just about growth but also about learning, adaptation, and historical accountability. The secret to understanding these failures can also come from understanding the gaps or silences in the archival record: missing evidence or suppressed narratives. Sometimes, these gaps are actively addressed by others who work to uncover lost or hidden histories, piecing together stories that were once fragmented or erased. One example in this volume comes from Greece, where we learn about infrastructure built after the Second World War that no longer exists. Through the efforts of archivists and historians, those buildings are being "brought back to life" by new research using archival materials. This highlights the dynamic role archives play in bridging the gaps between past and present. The work of archivists is itself an act of "building"—constructing a more complete and authentic historical record that serves as a foundation for future decision-making.

Lastly, it is common that major infrastructure investments often emerge in the wake of traumatic events. While industrialization and infrastructure development are often driven by private interests, there is a public aspect to these endeavors particularly when they occur after significant global conflicts like the First or Second World Wars. Projects discussed in this volume like hospitals, cultural and social institutions, universities, and transportation networks are investments not just in private profit but also in public well-being. The archives documenting these projects serve as evidence of a shared vision: one that strives for economic progress and social stability. Painfully, wars are happening today, and just as we now study our history of post-war rebuilding efforts, it is likely that the archives of tomorrow will be scrutinized by future generations looking to understand how the world responds to war through investment.

If you study the history of archives and their functions, you learn that whoever controlled the archives, controlled everything else. Monarchs, political rulers, religious bodies, and other powerful institutions were once the only entities controlling archives and their holdings. Information is power, and the ability to control the narrative and preserve a curated version of events is indeed powerful. And the same is true that whoever controls financial resources controls everything else. Investment in development and the archives that are evidence of that investment could, arguably, be the ultimate in power. But there is an uncomfortable friction in this idea. Some financial institutions shore-up, protect, and grow wealth for private interests, for individuals. Those private interests may or may not use their wealth for the benefit of others. But archival institutions see their wealth—the documentary evidence they care for—as a public good. Through their work, archivists level the playing field, enabling researchers, historians, and the public to better understand the forces at play in shaping our economic and societal structures. The documentary evidence contained in archives help us to avoid future mistakes, some of which may be devastating to wealth and to economies. Archives are active, living spaces that help build a strong foundation for the future and play a crucial role in development and the ongoing process of building. Thankfully, organizations like the *eabh* bring financial and archival institutions together where we can all—hopefully—contribute to building prosperity and peace worldwide.

April Miller, Chief Archivist
World Bank Group, Washington, DC.

Contents

Documenting the impact of the European Recovery Program in West Attica

Dimitrios Ramantanoglou & Konstantina Konstantopoulou

Abstract
The Piraeus Bank Group Cultural Foundation preserves important archival collections related to the postwar reconstruction period in Greece. Funds were provided to the industrial sector in the form of long-term loans, allocated by financing organizations such as the Greek and American-managed Central Loan Committee (CLC) and, from 1954, by the Economic Development Financing Organization (EDFO). In the industrial area of Tavros in Athens, loans became available through the Marshall Plan for the construction of plants and the modernization of existing industries. The study of financial archives revealed the prominent contribution of the European Recovery Program (ERP) to the creation of the industrial landscape in Tavros and the Eleonas region of Athens during the postwar reconstruction and rehabilitation periods. In particular, policies pursued by the American Mission, in cooperation with banking institutions in Greece and competent state authorities, were explored in cattle farming activities and in the secondary sector of the food and beverage industry, weaving and fibers, paper manufacture, the wood industry, leather processing, chemicals, ceramics, and heavy industry, in the process of creating an industrial walking tour by PIOP. Research themes in historical banking archives refer to the modernization drive in manufacturing initiated in the postwar period by the Marshall Plan and the contribution of American experts in promoting sound financing mechanisms in the war-devastated economy, leading to the formation of links for the integration of Greece with other European countries.

Keywords
Marshall Plan, European Recovery Program, Historical Archives of PIOP, industrial walking tours.

Contemporary archival sources of financing houses in the Greek context tend to remain silent. From an archivist's standpoint, there is a perceived lack of familiarity in the research community with archival fonds of banking institutions. Alternatively, and in pursuing a more honest strain, it could be argued that we are not working efficiently to publicize our holdings. Thousands of linear meters of correspondence and financial ledgers, in one of the lesser used languages, often demanding a knowledge of accounting create obstacles to access. If we add the relative availability of printed sources, we find ourselves as archivists in a position of being conscious of preserving the means for exploring modern history and feeling powerless in making available this treasure trove.

What is being done in response? In the preceding years steps have been taken under the leadership of Piraeus Bank. The Piraeus Bank Group Cultural Foundation (PIOP) as a non-profit institution that receives funding from Piraeus Bank reflects 'a permanent and continuous involvement in the field of culture' on the part of the Bank in accordance with corporate social responsibility issues and 'adhering to strict quality specifications, but is adapted to the needs and bears fruit only with the cooperation of local societies' (Vlachou & Nikolaou, 2014, pp. 444-446; Μπενέκη, 2011). PIOP operates a network of thematic museums that span the Greek provinces, historical archives and a library. It also conducts research work, a publishing program on the history of technology, industrial and economic history, provides educational programs and organizes scientific events. A rigorous program of conferences, exhibitions, educational activities, thematic workshops, documentary theater, art-in-the-archives projects, as well as thematic tours is on offer by PIOP Historical Archives (PIOP H.A.) to a wide spectrum of patrons encompassing bank employees, the research community as well as general audiences. At the core of activities are archival holdings deposited in PIOP H.A. The fonds of the Marshall Plan period provide material for initiatives that link archives, industrial structures and machinery in the process of exploring social memory. This paper follows research conducted for the creation of an industrial walking tour offered by PIOP in the regions of Tavros and the Eleonas of Athens. It is an abridged version of a thesis submitted for the postgraduate program in Information Management in Libraries, Archives, and Museums at the University of West Attica (Ramantanoglou, 2022) that examined the industrial walking tour in Tavros of Athens. The basic principles of PIOP include the documentation and presentation of the manufacturing heritage of Greece (PIOP, 2022b; Κοινωφελές Ίδρυμα της Ελληνικής Τραπέζας Βιομηχανικής Αναπτύξεως, 1987; Τράπεζα Πειραιώς, 2014). These are in accordance with the industrial walking tour objectives in

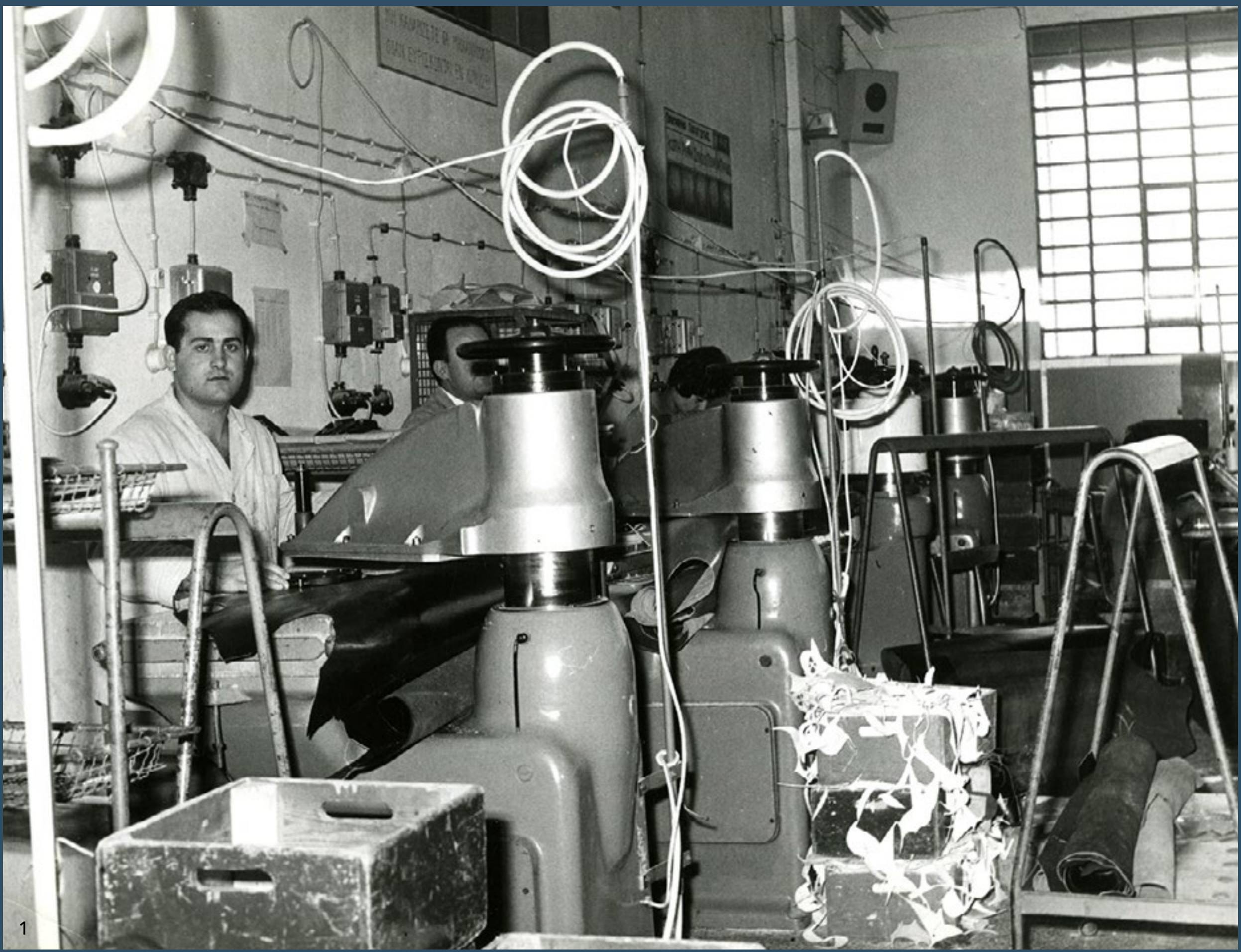


Image 1. Cutting line of the Footwear industry ELVIS S.A. at Orfeos Street by Dimitrios Harissiadis 1969, PIOP

documenting and highlighting the postwar industrialization drive through banking archives donated to the ETBAbank Cultural Foundation.[1]

1.1 An overview of the European Recovery Program

The greater part of over 12 billion dollars in aid from the Marshall Plan for sixteen countries was absorbed by July 1951 for imports of fuel, food, raw materials and machinery. These resources ultimately helped raise industrial production in Europe by 43% compared to the prewar period. Designed as a generous conditional foreign aid system it relieved recipient governments from incurring new loans. A 60% of counterpart funds was used to raise productivity through industrial modernization projects. The consensus in politics and the economy created by the Marshall Plan generated a virtuous circle that utilized growth, investment and employment in Europe that ended with the tripling of oil prices in 1973 and 1979 (DeLong, 2015; Hogan, 2005; Judt, 2001; Steil, 2018). At the time of its conclusion in December 1951 the European Recovery Program (ERP) had achieved several successes over intra-European payments, the reduction of trade barriers, the dissemination of American management practices and in encouraging cooperation between the public and private sectors. The contribution of the Marshall Plan in relation to GNP growth rates in Europe has been summarized in the corporatist new social contract encouraged between labor and management, leading to total factor productivity. Further benefits included mechanisms for intra-European trade set in place by the European Payments Union, the strategic deployment of finance alleviating resource bottlenecks, the policies of the Economic Cooperation Administration (ECA) in linking aid to concessions and the introduction of the American system of investment in productivity (Eichengreen, 2001; Holm, 2017; Milward, 2015; Wexler, 2001).

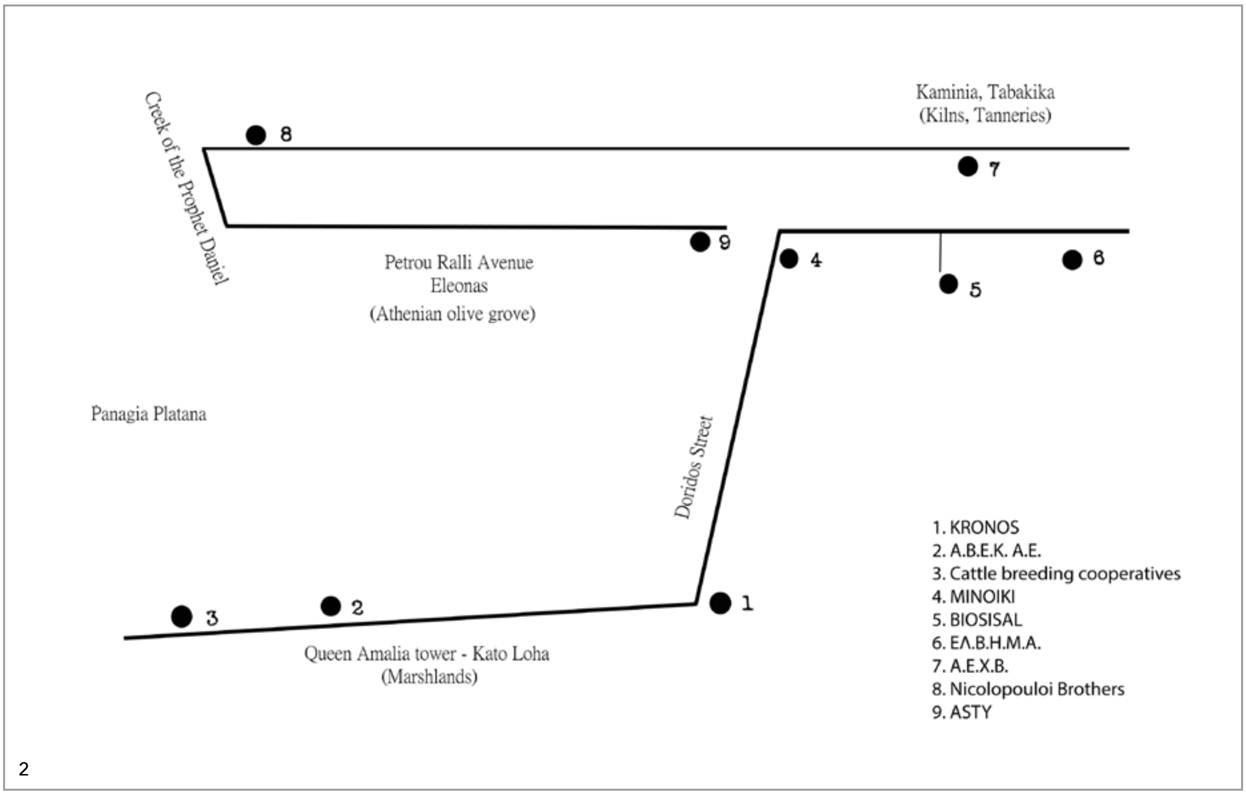
1.2 Reconstruction of industry in Greece

American Aid provided credits for the development of the Greek industry from 1949 onwards (Botsiou, 2009, pp. 210-216; Αγαπητίδη, 1950, p. 25; Βετσόπουλος, 2007, pp. 350-352; Μίρκος, 2004, pp. 68-75). It would not have been possible to create the infrastructures necessary for heavy industry given the prevailing conditions in which industrialists sought to finance new projects solely through bank loans. Established interests in politics and the economy managed to thwart the initial drive of the Economic Cooperation Administration to dislodge cartels. Having achieved the objectives of liberating Greece from the 'specter of Communism' and repairing infrastructures through a mix of policies influenced by the New Deal and WWII logistics, the ECA sought to exert control on the market in a way that would benefit Greek society. Encouraging the work of decentralized civic authorities was one element in this process. It was the first attempt since the creation of the Modern Greek State to set in place a program of this magnitude. Close monitoring by ECA/Greece personnel of both central services and the periphery differed from practices implemented in other Marshall Plan recipient countries. Control was exerted by a network of representatives across the country in the roles of 'diplomats, salesmen for new ideas and problem solvers'. They drafted close to 200 reports each month mapping the progression of all works funded by the Marshall Plan.

It is all the more important to note that the funds allocated by the American Mission for Aid to Greece (AMAG), the Marshall Plan and its continuation from 1947 to 1954 were offered by the American people in the form of a gift to Greece with a total of $1,180,2 million for the economy (Ψαλιδόπουλος, 2013). The decision to provide the money as a gift rather than a loan was taken because a substantial portion of aid was applied for imports of goods meant to ensure the survival of the population, Greece's lack of infrastructures in industry compared to other Marshall Plan participants, and the ravages of the civil war. In this environment, recovery and containment became linked for American Aid. The share of aid to GDP reached the high point of 15.71% in the 1949-50 fiscal year. Between 1948-49 and 1952-53, Greece received 7.1% of $12,918,8 billion provided to all Marshall Plan participating countries. If we include military aid, the years 1944-53 signaled an infusion exceeding $2 billion to the Greek economy ((OKA) Οργανισμός Κοινής Ασφαλείας, 1952).

1.3 Archival fonds of the Reconstruction and Rehabilitation Periods

Archival sources from institutions that facilitated the Reconstruction effort in Greece contain information about more than 2,500 businesses (PIOP, 2022a; Λεβεντάκου, 2008). The archives are open to researchers and in particular the fonds of the Central Loan Committee/Greece (CLC/G) from 1948-54 are organized in two series and digitized.[2] The Economic Development Financing Organization (EDFO) archives from 1954-64 are organized in seven series and digitized, the Industrial Development Corporation (IDC) fonds from 1950-70 in seven series and the Hellenic Industrial Development Bank (ETBA) archives from 1964-2002 into thirty-nine series. The historical archives of ETBAbank, containing the CLC/G, EDFO, IDC and ETBA fonds were donated in 2000 to the C.F. ETBA, renamed in 2002 as Piraeus Bank Group Cultural Foundation, 'to be fully catalogued and filed, so that they can be used for the recording of the country's industrial history.' Under the Operational Program 'Information Society' of the European Commission, fonds of the CLC/G and the EDFO numbering 500,000 pages have been digitized and made available to researchers ((ETBAbank) Hellenic Industrial Development Bank S.A., 2000; (ETBAbank) Hellenic Industrial Development Bank S.A., 2003). (Image 1)



1.4 The Marshall Plan in Tavros: Archives-Buildings-Machinery

The role of the European Recovery Program in the industrialization of the Tavros and the Eleonas regions of Athens is examined in this paper in a series of case studies compiled from the files of the Central Loan Committee/Greece during the process of creating an industrial walking tour by PIOP.[3] The walking tour concentrated on nine sites showcasing the primary sector in cattle farming activities and the secondary sector in the food and beverage industry, weaving and fibers, footwear manufacture, the wood industry, leather processing, chemicals, ceramics, and electric motors. In total, PIOP Historical Archives facilitated the study in the cases of twenty-seven loans to sixteen businesses for the years 1948-71. (Image 2)

The correspondence and technical reports of the collection show the challenges of the American mission working to introduce quality control, sound management principles and to discourage the formation of monopolies in an environment experiencing the aftermath of occupation and civil war. The Greek industry at the time was defined by small-scale production, a lack of working capital and energy resources, while seeking to implement or prolong state protectionist policies. During the Reconstruction and Rehabilitation periods, innovations were introduced in food processing and heavy industry. The CLC, EDFO, IDC and ETBA worked to promote industry and preserve capital investment. Entrepreneurs with little formal training were successful in creating new plants through Marshall Plan allocations. Industrialists refused to invest in their businesses while operating in an environment characterized on the one hand by domestic competition and the currency devaluation of 1953, and on the other hand, by external conditions marked by the Korean War and intensifying foreign competition. Larger industries remained operational in the following decades through foreign investment exemplified in the cases of the Athens Paper Mill financed by German sources (GR PIOP FOA2/SE2/SS3/FI32002; GR PIOP FOA3/SE3/SS5/FI24; GR PIOP FOA3/SE6/SS3/FI3P56) and the Hellenic Copper Industry S.A. that was controlled in 1962 by M. Stasinopoulos and representatives of the Belgian company SOCOBLEGE (GR PIOP FOA2/SE2/SS3/FI32011).

Banking institutions and the American mission sought to create mechanisms for sound industry financing. The technical report writing was allocated to the British Accounting Advisers to Greece, since there was no chartered accountants' organization in the country at the time. In Tavros of Athens, the presence of buildings constructed largely from 1950, and their absences provide

Image 2. Industrial walking tour map 2020-2023, PIOP a continual reminder of the layered industrial landscape and of the complex processes initiated by American Aid in Greece. Indicatively, the confectionery factory Kronos General Proprietorship, G. Kyratsakis and D. Tzoumerkas General Proprietorship (BIOSISAL) and the Hellenic Electric Motor Industry Michail Androutsos and Spyridonas Aslanis (ELVIMA) are a direct result of American Aid. Beyond conflicting views concerning the exact contribution of the Marshall Plan to the Greek economy, the materiality of industrial structures and archival memory carry the imprint of foreign aid in Tavros.

The sum of $5,142,374.4 and nearly 7.9 million drachmae, or $262,266, became available between 1948 and 1971 to the industrial sector in the regions of Tavros and the Eleonas via various financial institutions. The major beneficiary was the paper manufacturing company in Votanikos, which received $1,517,000 in loans from the Central Loan Committee and the Economic Development Financing Organization, followed by the dairy industry in Tavros with $1,145,976,36 in loans from the CLC and $138,933 via the Agricultural Bank of Greece (ATE) (CLC/G). Further beneficiaries were the heavy industry, including the metallurgical sector and electric motors, that received a total of $1,126,124,12. The leather industry received $636,453 in loans. The CLC was responsible for approving funds of $3,151,141.4 to the above businesses in Tavros and the Eleonas and the EDFO allocated to industry in the locality the sum of $1,976,233. ATE distributed the largest loan to a single recipient in Tavros through the Milk Processing Plant 'ASTY' Union of Dairy Cooperatives Attica-Boeotia (ASTY) allocations. The National Bank of Greece (NBG) took the lead as intermediary loan underwriter and distributor with $2,259,398 in the combined distribution of funds. Loan applications for $1,456,497 by Industrie Hellenique S.A. BIERE-MALT-FROID, Industry and Ice Trade and Cold Storage Vogiazidis S.A., VERMION Cold Stores S.A., Athenian Industrial Plywood Company S.A., Georgiadis and Sekeris S.A., Artificial Silk Company Ltd. ETMA and the Minoan Ceramic Company G. Kavalis MINOIKI were rejected by the CLC and the EDFO for various reasons. From the previous sum ETMA requested $1,053,330 from the CLC. The Reconstruction brought a significant rise in industrial buildings in the area through the assistance of the European Recovery Program. (Image 1.3)

Electricity

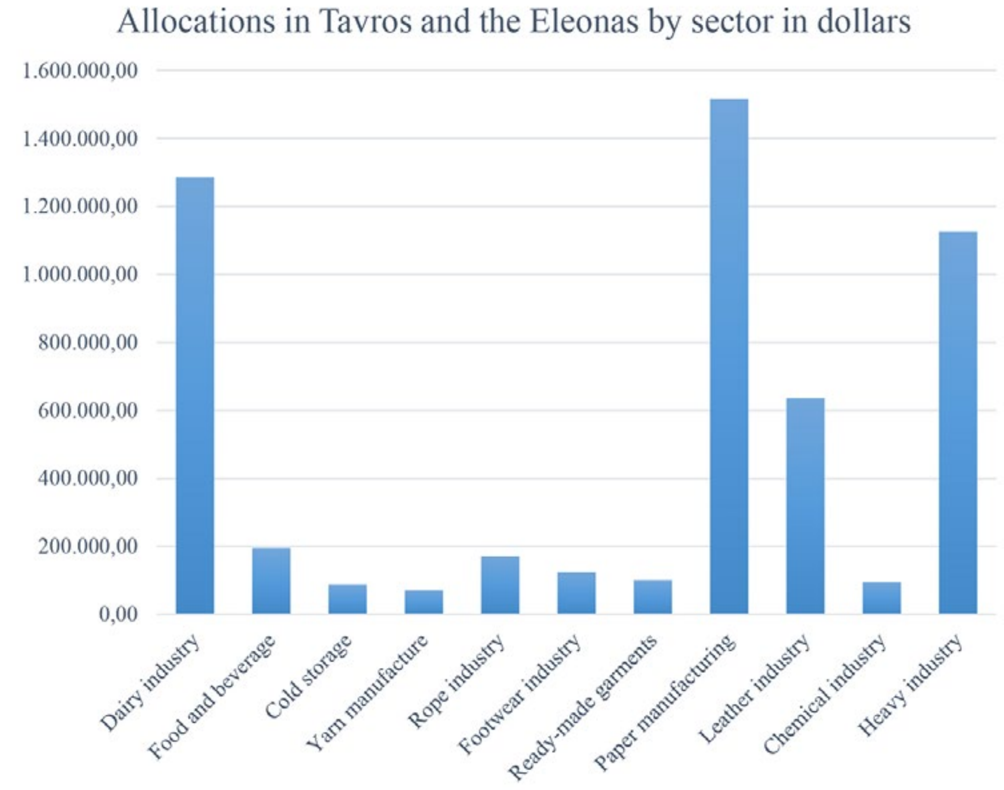
Electrification was a focal point for all industries during the Reconstruction period. Funds were allocated for the installation of power generators in the milk pasteurization plant ASTY (GR PIOP FOA2/SE2/SS2/FI21034), the leather industry in Tannerie-Ganterie Dardoufa S.A. (GR PIOP FOA2/SE2/SS3/FI32017), for heavy industry in the Hellenic Copper Industry S.A. (GR PIOP FOA2/SE2/SS3/FI32011) and the electric motor industry ELVIMA (GR PIOP FOA2/SE2/SS3/FI33032; GR PIOP FOA2/SE2/SS3/FI33181). The Athens Paper Mill S.A. applied for loan resources for the purchase of a high-tension electrical transformer from Germany and to improve its thermoelectric station used in paper drying and for generating electric power (GR PIOP FOA3/SE6/SS3/FI3P56). ELVIMA, for both the manufacture and sale of its products, monitored the electrification process in Greece. The Industrie Hellenique S.A. BIERE-MALT-FROID sold its generators at a loss following its connection to the power grid (GR PIOP FOA2/SE2/SS3/FI5404; GR PIOP FOA3/SE6/SS3/FI33182). The Sheep Woolen YARN Industry S.A. (VIER) had also purchased power generators by 1955 and was attempting to connect to the Athens-Piraeus Electric Company Ltd. (APECO) network (GR PIOP FOA3/SE5/SS6/FI24). APECO held a concession from the Greek government as the sole supplier of electricity in the Athens-Piraeus district. The cost for necessary transformers for VIER required an excess of 200,000 drachmae. The pipe factory BIOSSOL S.A. (GR PIOP FOA3/SE6/SS3/FI36107; GR PIOP FOA3/SE6/SS3/FI36213) and the Hellenic Copper Industry S.A. (GR PIOP FOA2/SE2/SS3/FI32011) manufactured products for the Public Power Corporation.

Raw materials

The import of raw materials for industry required capital and advances in technology enabled the gradual use of synthetic materials. An example of the lack of local resources is documented in the Hellenic Copper Industry S.A. that received $400,000 in working capital by the Central Loan Committee in 1951 for the import and domestic acquisition of various metals (GR PIOP FOA2/SE2/SS3/FI32011). The company had followed instructions provided by A. J. M. Baker on 8 May 1948 for the supply of nonferrous sheets, strips and blanks from Greece. The artificial silk company ETMA attempted in 1949 to construct through loans by the Central Loan Committee two plants to produce sulphuric acid and carbon bisulphide that were supplied until that time by Greek firms (GR PIOP FOA3/SE6/SS3/FI93320). It was considered in a report of the British Accounting Advisers to Greece dated 17 March 1950 that the new plants would provide 'cleaner and better-quality chemicals.' In 1951, in the electric motors sector the CLC approved funds for the electric motor industry ELVIMA for the import of fifty tons of silicon sheets for $10,472 at a time when Greece lacked an integrated steel plant (GR PIOP FOA2/SE2/SS3/FI33032; GR PIOP FOA2/SE2/SS3/FI33181). Difficulties in credit allocations for the import of raw materials were cited by the company as the reason for seeking a deferral on initial loan repayments.

Entrepreneurs

Another resource of the PIOP Historical Archives is the rich correspondence deposited in the Central Loan Committee and Economic Development Financing



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Organization fonds. One can follow the drive of businessmen to establish companies and foster industrialization while lacking the formal training which then led to difficulties in the management of these newly created firms. For example, the company founders of the ropes and twine manufacturing plant BIOSISAL had no prior experience in management (GR PIOP FOA2/SE2/SS3/FI33148; GR PIOP FOA2/SE2/SS3/FI33191). Michail Stavrou Androutsos of the electric motor industry ELVIMA, a practical engineer, held, along with others, three patents registered before WWII (GR PIOP FOA2/SE2/SS3/FI33032). Georgios Kavalis, another practical engineer and founder of the ceramics industry MINOIKI, was credited in 1958 with designing the mechanical equipment of the firm (GR PIOP FOA3/SE5/SS6/FI390). The Athens Paper Mill (GR PIOP FOA2/SE2/SS3/FI32002), as well as the Chemical Industry AEXB (GR PIOP FOA2/SE2/SS3/FI33042), the Tannerie-Ganterie Dardoufa S.A. (GR PIOP FOA2/SE2/SS3/FI32017), Nikolopouloi Bros. leather industry (GR PIOP FOA3/SE5/SS6/FI72) and the pipe factory BIOSSOL S.A. (GR PIOP FOA3/SE6/SS3/FI36107; GR PIOP FOA3/SE6/SS3/FI36213) had university-trained management.

A significant aspect that continues to be a factor in Greek business today, as evidenced in our archives for the early days of post-war reconstruction, is the concentration of company ownership within family groups and is exemplified in the pipe factory BIOSSOL S.A. and the Tannerie-Ganterie Dardoufa S.A. Conflicts in family partnerships were common, as for example at the Stasinopoulos brothers of the Hellenic Copper Industry S.A., where the differences led to the creation of competitive interests (GR PIOP FOA2/SE2/SS3/FI32011) and at the Industrie Hellenique S.A. BIERE-MALT-FROID (GR PIOP FOA2/SE2/SS3/FI5404; GR PIOP FOA3/SE6/SS3/FI33182). The latter was able to establish a brewery in a market dominated by the K. Fix Brewery monopoly. A report by the Institute of Certified Public Accountants of Greece-ΣΟΛ of 20 March 1959 stated, 'monopolies cause dissatisfaction and complaints among consumers due to the quality

Image 3. Allocation of funds in Tavros and the Eleonas of Athens, PIOP

of the product on offer or the poor catering to customers' needs, and this situation will certainly be taken advantage of by the new firm.' The pattern of conflicts influenced operations in the twine manufacturing plant BIOSISAL. A change of administration in the electric motor industry ELVIMA, which was acquired by members of the Solounia family, caused legal proceedings. Several founders of small firms, such as the Athenian Industrial Plywood Company S.A. (GR PIOP FOA3/SE5/SS5/FI231; GR PIOP FOA3/SE5/SS5/FI117), the ceramics industry MINOIKI (GR PIOP FOA3/SE5/SS6/FI390) and Nikolopouloi Bros. leather industry (GR PIOP FOA3/SE5/SS6/FI72), had settled in Greece following the Asia Minor Campaign.

Modernization in industry

Yet another story that can be told from PIOP Historical Archives, is the trajectory of industrialization and modernization after WWII. The allocation of funds for industrial development by banking institutions was aligned with promoting modernization efforts in Greece. For example, the ASTY milk pasteurization plant files reveal the postwar drive to introduce milk pasteurization to Greece (GR PIOP FOA2/SE2/SS2/FI21034). Economic Cooperation Administration officials managed to override misconceptions, the lack of technically skilled personnel and pressures exerted by the rival company EVGA in a process that led to the creation of the ASTY factory. Another example is the Hellenic Copper Industry S.A. that applied ECA resources to implement the second part of its industrialization program (GR PIOP FOA2/SE2/SS3/FI32011). Following the Occupation by the Axis Powers, the firm in a constant drive for modernization was able to import mechanical equipment through American Aid to produce metal sheets and to organize the manufacturing process. The Athens Paper Mill was also successful in utilizing CLC and EDFO loans, attracting credit investments by the German firm ER-WE-PA Maschinenfabrik und Eisengiesserei G.M.B.H., Erkrath and issuing debenture loans for the purchase and improvements of mechanical installations (GR PIOP FOA2/SE2/SS3/FI32002; GR PIOP FOA3/SE3/SS5/FI24; GR PIOP FOA3/SE6/SS3/FI3P56). (Image 4)

The Tannerie-Ganterie Dardoufa S.A. received loans from the Central Loan Committee amounting to $591,453 and was unsuccessful in its modernization program primarily because it used a large portion of its working capital for the construction of a new factory (GR PIOP FOA2/SE2/SS3/FI32017; GR PIOP FOA3/SE5/SS6/FI38; GR PIOP FOA3/SE6/SS4/FI90605). The company focused on the glove making sector, rather than the more profitable large hide treatment industry and was affected by the 1953 currency devaluation, which impacted on loan interest rates tied to the dollar. The press release from the ECA Mission to Greece no. 1192/16.02.1952 highlighted the restoration of Tannerie-Ganterie Dardoufa S.A. through the Marshall Plan and its shift towards defense production. The release also mentioned that information about the factory's capacity was provided to NATO and other national armies. In the interwar period, company products were principally sold to Great Britain and the British Colonies. In a time of development of the clothing industry in Greece the Ready-made Garments Industry ADAM'S S.A. repurposed through an EDFO loan the Dardoufa S.A. factory in 1964, nearly a decade after its closure (FOA3/SE6/SS3/FI3P110; FOA3/SE6/SS4/FI41911).

> The allocation of funds for industrial development by banking institutions was aligned with promoting modernization efforts in Greece.

The pipe factory BIOSSOL S.A. in 1957 sought to replace the prewar welding system that applied oxygen and acetylene by using the electric welding method and to import galvanizing installations in a consortium with IZOLA S.A. In Greece, the production of iron pipes on an industrial scale began in 1932. The continued interest of USOM/G (US Operations Mission to Greece), the new form of the Economic Cooperation Administration, in the project was indicated in a letter dated 12 June 1957 to the Economic Development Financing Organization (GR PIOP FOA3/SE6/SS3/FI36107; GR PIOP FOA3/SE6/SS3/FI36213), at a time when the sector was under tariff protection. The EDFO was requested to consider the effect of a reduction in tariffs due to Greece's participation in the European common market either as an associate or as a full member. Attention could well be given to the importance of tariff protection for this project before granting the loan. Another factor requiring scrutiny was whether the company would receive a loan exceeding the medium term of three to five years, especially considering its position if an integrated steel plant were to be established in Greece. The feasibility of such a plant was under consideration at the time.

The American Mission for Aid to Greece rejected an application from Arktiki Cold Stores S.A. for a loan of $90,000 in 1951, as at that time Athens was not included in the cold storage loan scheme for the creation of cold storage spaces in the country (GR PIOP FOA3/

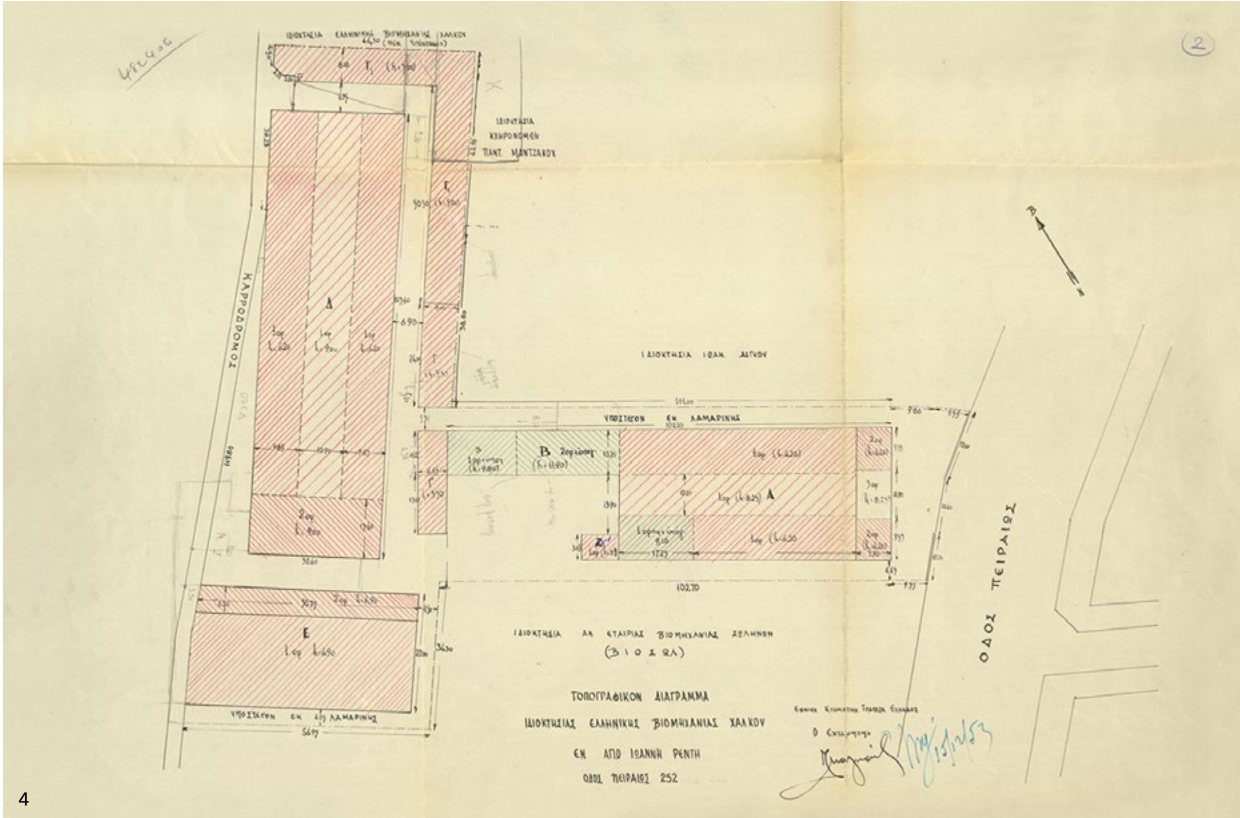

Image 4. Topographic drawing of the Hellenic Copper Industry S.A. at Piraeus Street 1953, PIOP
Image 5. Power-generating facilities of the former AEXB at Orfeos Street 2019

SE6/SS2/FI23164; GR PIOP FOA3/SE5/SS6/FI121). The company hastily acquired various equipment from the American factory Worthington Pump and Machinery Corp. that applied the Freon 12 system, without waiting for the outcome of their initial loan application. The Freon 12 system was novel for Greek cold storage plants that used ammonia because of its lower machinery cost. The imported machinery was deposited at the warehouse of the Commercial Bank due to the lack of funds, with the loan not yet approved. Luckily, the Economic Development Financing Organization approved a loan for $87,233 to Arktiki Cold Stores S.A at Board Meeting no. 18/29.08.1958.

Aftermath

Historical sources indicate that by the end of the Marshall Plan and the Stabilization Program in 1953, Greece had achieved monetary stability, and industrialization was anticipated to foster the development of a modern consumer economy (Ιορδάνογλου, 2020; Κωστής, 2018; Τσουλφίδης, 2013; Φραγκιάδης, 2007).

In the following years, 1953-1973, economic policy and debate concentrated on the Association Agreement with the European Economic Community (EEC) and the waves of domestic and foreign migration. The remarkable industrial growth achieved over the two intervening decades, driven by foreign investments in heavy industry and supported by a generous incentives policy, came to an end during the oil crises of the 1970s. A persistent challenge was the small scale of the manufacturing sector, which primarily served the domestic market and hindered further development. The low-quality consumer goods produced in Greece struggled to compete effectively within the European Economic Community. As a result, the tertiary sector gained prominence in the economy, and by 2000, industry accounted for only 22% of GDP. (Image 5)

1.5 Conclusions

The PIOP Historical Archives created an industrial walking tour in the Tavros and the Eleonas regions of Athens linking banking archives with industrial buildings that were constructed mostly during the operation of the Marshall Plan in Greece and mechanological installations. The work of PIOP in Tavros presents a turning point in cultural policy in a former industrial area that retains structures and memories of its recent manufacturing past. This little researched archival fonds carry a wealth of information for the implementation of the Marshall Plan in all of Greece and for the early stages in the formation of business networks that would eventually evolve into the European Economic Community. Themes pertaining to the access to power sources and raw materials, the characteristics of entrepreneurs, the modernization drive and the contribution of banking houses in the administration of industry can be explored in the archives of financial institutions that are deposited with PIOP. The construction process of industrial businesses in the former agricultural area of Tavros is also documented.

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1 The former ETBAbank Cultural Foundation (C.F. ETBA) was created with Government Gazette no.230/27.08.1981, as a legal entity under private law in connection 'with the active interest taken by Greek Banks in general in supporting research and educational projects', linked with 'the history of Modern Greek Technology between circa 1750-1950.'

2 http://archives.piop.gr

3 The studies were made for the creation of the walking tour and are available in Ramantanoglou, 2022

The Banco de San Carlos: Promoter, builder and financier of public works

Elena Serrano & Rosario Calleja

Abstract
This paper examines the building role of the Banco Nacional de San Carlos (1782-1829), predecessor of the Banco de España. The Banco Nacional de San Carlos promoted, built, and financed public works, such as the Guadarrama and Manzanares Canals, the road from Madrid to Aranjuez, the one from Oviedo to Gijón, and the construction of the Grao port in Valencia. All of these reflect the enlightened thought of the Bank's directors, who were convinced of the need to improve internal communications and waterways as a means of stimulating the circulation of merchandise and fostering the prosperity of individuals.

Keywords
Banco Nacional de San Carlos, Banco de España, 18th century Spanish banking, historical public works financing, Enlightenment era infrastructure, Spanish canals 18th century.

The Banco de España Historical Archive. Memory of the institution

Archives preserve the collective memory of the societies and institutions that created them. The Banco de España Historical Archive, renowned for its exceptional preservation standards, stands as a model among archives worldwide, particularly within the banking sector. Spanning nearly 240 years of history, it serves as an immense reservoir of information, chronicling both major and minor events, with much of its wealth still waiting to be discovered.

The Banco de España's Archive contains detailed records on how its predecessor, the Banco Nacional de San Carlos (1782-1829), funded the construction of the Guadarrama Canal, which aimed to channel water from the Guadarrama River in the northern mountains to Madrid. Its purpose was to link the Canal with the Manzanares River and thus increase its water flow. This work was part of a much more ambitious project, which was the construction of a navigable canal that would connect the capital of the Kingdom of Spain with the Atlantic Ocean via a route that crossed Madrid, Aranjuez, La Mancha, and Sierra Morena through the Despeñaperros Pass, ran parallel to the Guadalquivir River, bordered Cordoba and ended in Seville. The Canal would connect the waters of four main rivers: The Guadarrama, the Manzanares, the Tajo, and the Guadalquivir. The goal was to improve the flow of goods and supply the Court, reflecting Enlightenment thinking from figures like Jovellanos to Floridablanca. Their aim was to stimulate economic growth by enhancing transportation routes, a crucial step in overcoming the significant challenges posed by the peninsula's rugged terrain. (Image 1)

1. Banco de San Carlos. Background, birth, functions

The Banco de San Carlos was established by Royal Decree on June 2, 1782. Its foundation was laid by Francisco Cabarrús, a young French merchant living in Spain, who had an extraordinary ability to undertake business and propose solutions to the economic problems of his time. The Banco de San Carlos, like other central banks, was created to finance the State in times of war. Thus, Spain intervened in alliance with France, from April 1779, in the war between France and Great Britain for the independence of the American colonies.

The founding capital of the Bank was established at 300 million *reales de vellón*, just one-third of the capital of the Bank of England in 1782; according to Hamilton, it was much higher than any other Spanish company had ever had before and higher than a risk-free investment would allow. To broaden the Bank´s ownership and avoid monopoly, the capital was divided into 150,000 shares of 2,000 reales each, well below the nominal value of Spanish shares in other contemporary companies.[1]

The Bank was established under royal protection, but was privately owned. The Crown, municipalities, religious orders, and members of all social classes of Spain and the Indies could own shares, but neither the Crown nor any other shareholder exercised special control, as established in the statutes. The Banco de San Carlos was shaped as a modern market economy institution by its share-based ownership and the authority of the Board of Shareholders, which even superseded the will of individual shareholders, including King Carlos III.[2]

Image 1. Map of Canal route. "De Madrid al cielo (Y al Atlántico por barco)". Accessible in January 18, 2016. https://www.hidrologiasostenible.com/de-madrid-al-cielo/ Creative Commons – Attribution (CC BY-SA 4.0) [Consulted in December 10, 2023].

The Articles II, III, and IV of the founding charter established the Bank's functions:

- The conversion of commercial instruments (bills of exchange, royal vouchers, and promissory notes) into cash at face value with an annual commission of 4%.
- The provision of supplies to the Army and Navy, both domestically and abroad, and the clothing of the troops of Spain and the Americas, for a period no less than twenty years, with a 10% commission.
- The payment of all obligations of the Real Giro abroad, including the transfer of funds to embassies and legations, with a 1% commission.

The Bank was conceived as an instrument to stimulate productive activity, move private savings towards new investments, promote trade, and undertake infrastructure works. Therefore, in addition to the functions expressed in the Royal Decree of creation, in its early years, the Banco de San Carlos undertook a variety of businesses. In 1786, it made a significant investment of 21 million reales in the purchase of shares of the Compañía de Filipinas, a company dedicated to promoting traffic between the peninsula, the Asian archipelago, the coast of the China Sea, and Spanish America. In 1785, it took on the task of building the Guadarrama Canal. Later, it also took charge of the continuation of the works of the Manzanares Canal from the river in Madrid to the Tajo, in Aranjuez. It also financed other works, such as the Murcia Canal (1791-1792), the roads from Madrid to La Granja via Navacerrada (1788), the road from Oviedo to Gijón (1786), and the construction of the port of Grao in Valencia (1795). The latter contributed to overcoming the lack of port infrastructures that had economically held back the region of Valencia for more than a century. It also financially supported the Granary of Madrid and introduced cereals, on behalf of the government, in different coastal provinces to alleviate the scarcity of 1789. Its total investment in loans for infrastructure development never exceeded its resources; according to Hamilton, it is difficult to find another bank that was more generous in financing infrastructure during its early years.[3]

2. Public works in Enlightenment thought

For 18th-century economists and Enlightenment thinkers, wealth creation relied on stimulating the economy and fostering market relations. To this end, the improvement of communication routes was an essential element. Any merchandise could circulate from one area to another thanks to improved roads and waterways. In Spain, the presence of particularly difficult orography for the transit of people and goods was a major issue in the debate among Enlightenment thinkers, all of whom agreed that the prosperity of the country, and even the very survival of the Spanish State, depended on the improvement of its transport infrastructure. Many Enlightenment thinkers even invested their fortunes in promoting roads and canals. Cabarrús, for example, participated in canal investments in France, promoted the ambitious public works of the Banco de San Carlos, and allocated a large part of his fortune to the formation of irrigation systems, water routing, and agricultural experimentation.

The Spanish government also tried to improve means of transport by land and river. In the 18th century, 300 kilometres of canals were built, including important sections in the Castilla and Aragón Canals, although none of these projects were completed. In almost all cases, the enormous orographic difficulties of the Iberian Peninsula that had to be overcome to build the canals raised the costs to the point of making their execution unfeasible.

3. The promotion and financing of public works. The Guadarrama Canal

a. The idea

On May 7, 1785, the management of the Bank submitted a letter to the Minister of Finance, Pedro de Lerena, requesting permission for engineer Brigadier Carlos Lemaur to build a navigable canal from the Guadarrama River in the northern mountains of Madrid, to the Atlantic Ocean.[4] They considered that a project of this magnitude was part of the activities foreseen for the Bank in the Royal Decree of creation, specifically in chapter XXIX:

"The Bank may not, under any circumstances or pretext, deviate from the three objects of its institute, nor engage in buying, selling, or any other commercial speculation, to the detriment of private individuals, except in cases in which I deem it convenient to entrust it with some useful commission of this nature in distant countries or to give it some relevant assignment to promote agriculture or factories in one or more provinces".[5]

The directors of the Bank declared that, given the firmness and confidence achieved by the institution, the time had come to undertake major initiatives aimed at promoting the wealth of the State. Furthermore, they affirmed that the current operations of the Bank—the discounting of commercial paper, the supply of provisions to the Army, or the extraction of silver—should be considered as means intended to strengthen the institution to eventually enable it "to carry out those great tasks for which it is destined, and which are to produce public happiness".[6]

The directors of the Bank were convinced that attempting to stimulate investment through credit was futile as long as goods and agricultural products, the products of the soil and industry, were not actively circulating. In their view, removing political barriers to free trade would accomplish little unless the physical obstacles to moving goods were also addressed to stimulate both domestic and international markets.

The directors who signed the letter emphasized the advantages that would derive from the reduction in the

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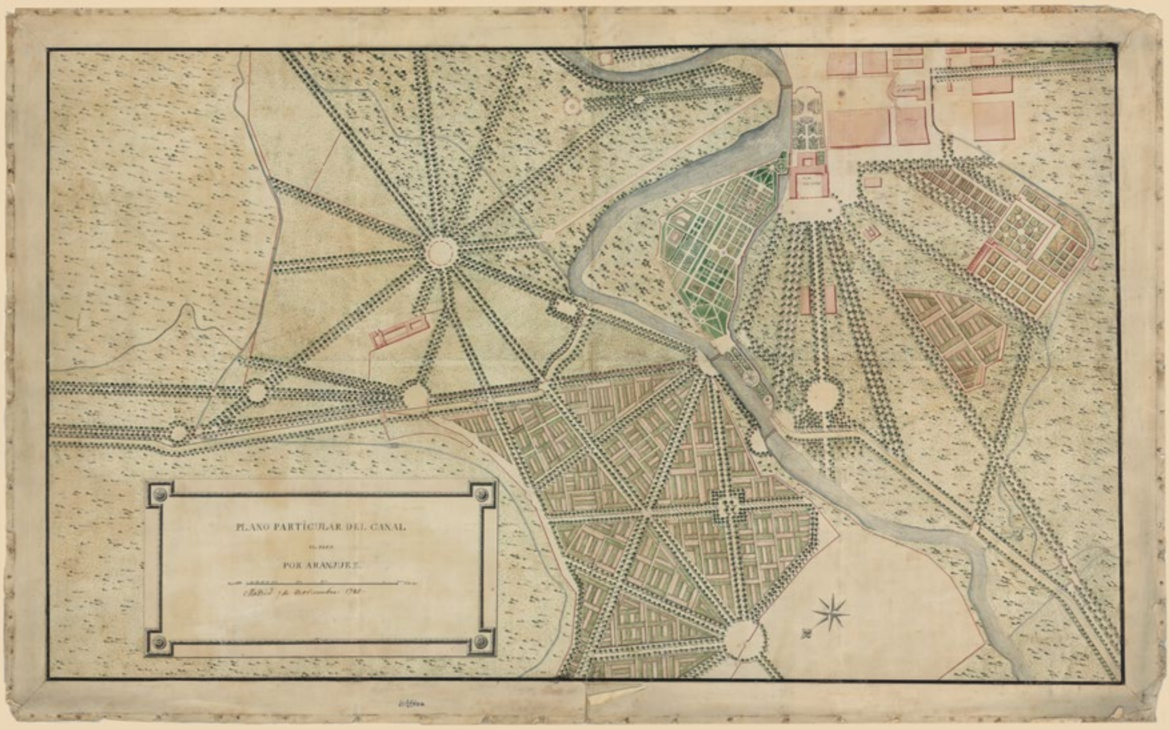

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Image 2. Map of the Canal projected between the Guadarrama and Xavalón rivers passing through Aranjuez. By Lemaur, 1785. © Archivo General Militar de Madrid. AGMM. ESP.11-10-1.

Image 3. Particular Plan of the Canal as it passes through Aranjuez. [Carlos Lemaur], November 7, 1785. ©Archivo Cartográfico y Estudios Geográficos del Ejército de Tierra. Ar. E-T.8-C.1-119.

price of transport within the peninsula, making it easier to introduce products from the Americas and abroad and to transport goods from the interior of the country to the coast. Reference was made to the economic viability of these investments since, according to the calculations of the Bank's directors, the benefit would exceed the cost. This would be the case of the Guadarrama Canal.

By Royal Order of June 4, 1785, engineer Brigadier of French origin Carlos Lemaur, was authorized, in the company of his sons, to carry out the necessary surveys, levelling, and preliminary plans for the approval of that endeavour.[7] After a detailed analysis of the affected orography, on November 7, 1785, Carlos Lemaur presented his report, entitled "Historical and Descriptive Register of the Project of a Navigable Canal from the Guadarrama River to the Ocean, passing through Madrid, Aranjuez, and crossing La Mancha and Sierra Morena, with the exposition of the order and method of execution to ensure the success and the promptest usefulness of such a great work".[8] In three months, Lemaur drew up the plans for this canal from Guadarrama to Seville, levelled nearly 300 kilometres, made a detailed description of the works, and calculated the cost of the project. His study was particularly dedicated to the four sections of the route from El Gasco, in the northern mountains of Madrid, to the Jabalón River, in Valdepeñas: these were the sections that he really had to design for the first time, with terrain recognition and levelling, which involved hard fieldwork carried out in the summer of 1785. (Image 6) The fifth section, from the Jabalón to Seville, should not have posed greater difficulties for Lemaur, despite its long distance, given his perfect knowledge of the terrain. Years earlier, he had already designed and built a dirt road that crossed the Despeñaperros Pass, with the same layout that the canal would now have, from the Jabalón to the Rumblar, to continue later to Seville, following the route planned for a project that was never realized, known as the Andalusia Canal or Guadalquivir Canal. The budget drawn up by Lemaur reached a cost figure of 110,574,163 reales, calculating the duration of the works at ten years. The Canal covered more than 750 kilometres from the El Gasco Dam, on the Guadarrama River, to the city of Seville, connecting at that point with the Guadalquivir River, navigable to its mouth in Sanlúcar de Barrameda. (Images 2- 3)

> In Spain, the presence of difficult orography for the transit of people and goods was a major issue in the debate among Enlightenment thinkers about the country's prosperity.

On November 9, 1785, the Board of Directors agreed to submit a preliminary proposal to the Count of Floridablanca, requesting from the King a "general approval" of the endeavour, with the commitment that no section of the canal would be undertaken without a more detailed plan.[9] The management of the Bank decided to add a further 50 per cent to the budgeted cost and proposed to the King that the Bank itself should take charge of the Canal enterprise in a similar way to how it administered the provisions, that is, by advancing the necessary capital, charging an interest of 4% annually, and remuneration of one-tenth of the cost. The repayment period would be twenty years and the investment period ten years. At the ensuing annual shareholders' meeting held in December 1785, the directors presented the proposal for the construction of the canal from the Guadarrama River (in Madrid) to the Atlantic Ocean to the shareholder community.

Lemaur suddenly died on November 25, 1785, obviously an unexpected setback to the Bank's plans. The prestige he enjoyed at that time, after the opening of the Despeñaperros Pass, would have been a valuable support for Cabarrús' plan. After the engineer's death, Lemaur's sons presented to the Bank the proposal for preliminary operations of the navigational Canal in January 1786.[10] However, the documents presented were limited to the section that ran from the Guadarrama River (near the village of Torrelodones) to the incorporation of the Canal into the Manzanares River, next to the Toledo Bridge in Madrid. It was, therefore, a more feasible short-term investment, with a budget of 11.5 million reales. The cost of the investment would be covered by 1.5 percent of the profit from the extraction of the silver, ceded by the Bank from its percentage of this activity, which was estimated at 4.5 million reales per year, so that three years would be enough to cover the cost of the Canal through this measure. Once the Canal from Guadarrama to Madrid was completed, and if the King decided to continue it as far as Aranjuez and the ocean, the same measure would be applied for these purposes. If the Bank did not participate in these public works, those funds would be redirected to the Treasury of Posts.

The management of the Bank proposed to the King that Carlos and Manuel Lemaur, sons of Brigadier Lemaur and graduated lieutenants of engineers, should be made directors of the project, assisted by their brothers Félix and Francisco. The Lemaur brothers had accompanied their father, in 1775, in the levelling work carried out for the Andalucía Canal project, and in other works, such as the roads of Puerto del Rey, Málaga, Toro, and those of the Guadarrama Canal. In May 1786, Floridablanca replied that the King approved the project "for the time being", applying 1.5 percent of the extraction of silver to this work, as requested. He suggested, however, that the project be

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Image 4. Map of the first section of the Guadarrama Canal and its surroundings [...] Carlos Lemaur, Manuel Lemaur, Félix Lemaur and Francisco Lemaur. December, 23, 1786. ©Archivo Cartográfico y Estudios Geográficos del Ejército de Tierra. Ar. E-T.8-C.2-134.

Image 5. The Toledo Bridge, in Madrid, was the point where the waters of the Guadarrama Canal would join with those of the Manzanares River. [Source: Laborde, A. L. J., comte de. (1820). *Voyage pittoresque et historique de l'Espagne*. Paris: Imprimerie de Pierre Didot.] Imagen procedente de los fondos de la Biblioteca del Banco de España. https://bde-primo.hosted.exlibrisgroup.com/permalink/f/1hg38uk/34BDE_ALEPH000101510 Creative Commons – Attribution (CC BY 4.0) submitted to the supervision of "intelligent, accredited persons", so that the terrain, plans, and levelling would be re-examined before obtaining final approval. Thus, by order of the Count of Floridablanca, the project was submitted to the supervision of Escipión Perosini, a professor of hydraulic architecture (Royal Order of May 25, 1786). Perosini issued a report, which was not only favourable but laudatory of Carlos Lemaur's calculations and forecasts, dated July 29, 1786.[11]

At the end of 1786, the management of the Bank presented a printed notebook with a plan, the project, and the budget for the works that should begin in January 1787 to its General Board.[12] (Image 4)

b. The project

Since it is a purely Enlightenment project, it is worth noting the importance of the scientific and technical preparation of the engineers who were chosen to undertake a venture of this nature.

Carlos Lemaur was the most prestigious engineer of those years; he had successfully completed such relevant projects as the Castilla Canal, the Galicia route, and the new passage of Sierra Morena, through the Despeñaperros Pass, a narrow mountain pass located in the Sierra Morena Mountain range.

To understand the magnitude of the projected work, it is necessary to specify some figures:[13] the idea was to build a navigable canal 771 km long, crossing a maximum height difference of 800 m, including a total of thirty-six dams, six of which were of great height. In particular, the monumental El Gasco Dam—the starting dam of the Guadarrama River—was designed at 93 m in height and with a crown length of 251 meters; it would play a decisive role in the controversial history of the project. Likewise, the project required the excavation of 15 km of mines (tunnels) and the construction of one hundred and seventy-nine locks along the different routes designed for the canal.

The idea was to build a navigable canal 771 km long, crossing a maximum height difference of 800 m.

For a better understanding and considering the uniqueness of the orography of the peninsula, five sections can be identified in the Canal route.

The first section began at the El Gasco Dam, on the Guadarrama River, and ended at the Tajo River near Aranjuez, with a length of 104.5 km and a total gradient of 240 m. As it passed through Madrid, it would join the Manzanares Canal. (Image 5)

The second section, from the Tajo to the Tembleque irrigation channel had a length of 68.7 km and a gradient of 220 m. It took water from the Riánsares River, regulated by a reservoir, which Lemaur called "la balsa de Tembleque", and that was conveyed to the Canal through a 25 km irrigation channel.

The third section ran southwards, from the Tembleque irrigation channel to the river also named by Lemaur, "Guadiana la chica", today channelled and known as Guadiana Alto, with a length of 48.4 km and a height difference of 90 m.

The fourth section, from the Guadiana River to a place called by Lemaur, "el Humilladero", was the highest point of the entire Canal, at an altitude of 810 m. With a length of 126.5 km and a gradient of 190 m, it received the waters of the Jabalón River, through a new regulation reservoir, and a long irrigation channel, which would lead these waters to the canal.

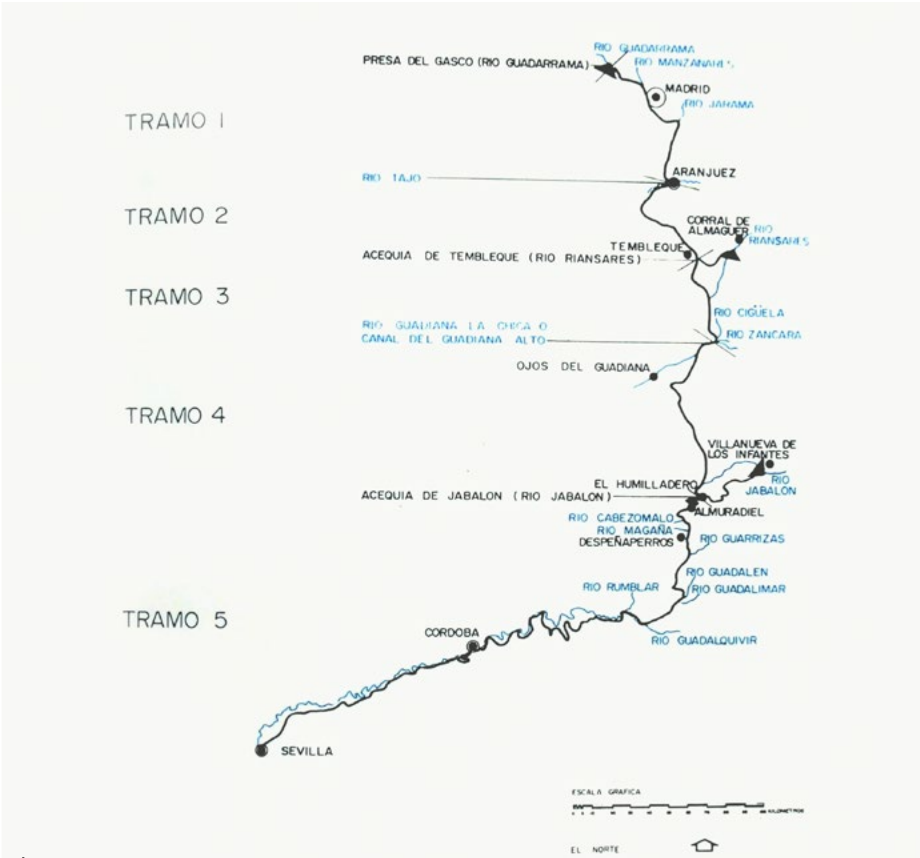
The fifth section, the longest and with the greatest topographical difficulties of the five, ran from El Humilladero to Seville, measuring 423.1 km in length—more than half of the total length of the Canal—and a height difference to overcome of 800 m. The waters flowed southwards until they reached the Guadalquivir River and then westwards, following a course parallel to that of the river.

Despite the many difficulties presented by the route, including the Despeñaperros Pass, this was precisely the one Lemaur knew best, along with the final stretch (from El Rumblar to Seville), which corresponded to the planned but not executed of Andalusia Canal.

Although Lemaur confirmed the feasibility of his project, he was also weary of the difficulties involved, including his concern about the low flow and long drought of the rivers of La Mancha, for which he proposed the use of an economic lock model, which would save 75% of the water from the locks, based on the famous Boezinge lock, near Yprès, in Belgium, which he mentions in his memoir. The construction of these locks was limited by the high cost of construction and the slowness of the passage manoeuvres. These problems would be compounded by future operational issues due to the need for specialized personnel, given the complexity of their handling and the difficulty of keeping a very long horizontal canal free of silt and aquatic vegetation.

The recently published technical analyses, considering current cartography, conclude that the layout proposed by Lemaur was correct and the topographic survey very accurate, in relation to the technical means available to him, providing constructive solutions to all the problems of unevenness. Among the disadvantages, the problems of water supply stood out.

To get an idea of the enormity of the project, we can compare it with the French Canal du Midi, the oldest



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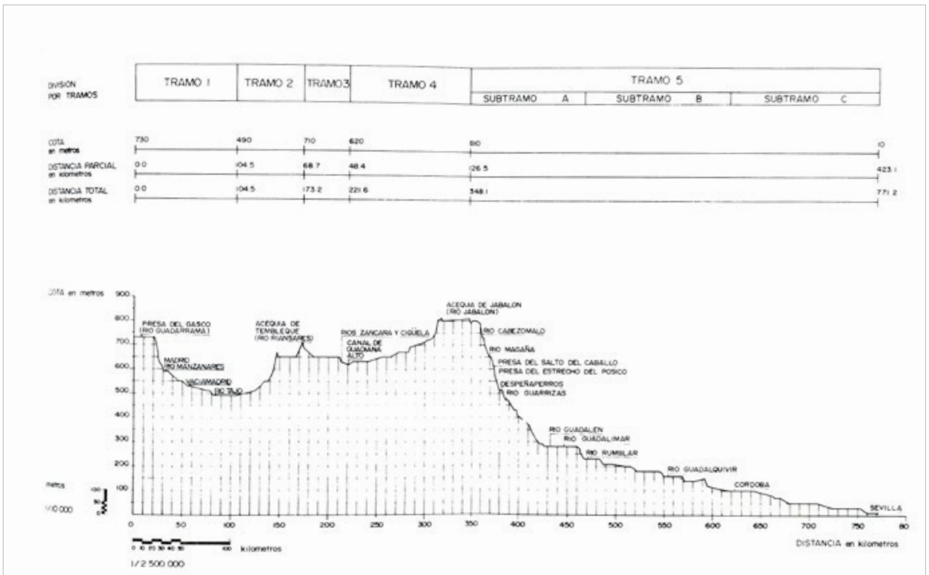

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Image 6. Functional division of the Canal into sections, according to the direction of water flow due to differences in gradient. [Source: Sánchez Lázaro, Teresa (1995), p. 115] ©Colegio de Ingenieros de Caminos, Canales y Puertos.

Image 7. General profile of the Canal layout. [Source: Sánchez Lázaro, Teresa (1995), p. 117] © Colegio de Ingenieros de Caminos, Canales y Puertos.

operating navigable canal in Europe (1681), which links the Mediterranean Sea with the Atlantic, featuring two slopes, a total gradient of 250 m, about sixty locks, and a length of 250 km. (Images 6 – 7)

c. Enforcement

By 1788, nearly a year and a half after construction began, the project was deemed a success, and the court viewed its progress with optimism. Despite completing only 24.16 km of the planned 50 km to reach the Toledo Bridge, the project had already constructed thirty-seven masonry and ashlar aqueducts, employed 2,500 to 3,000 workers, and incurred expenses totalling 4,784,101 reales. In June of that year, however, Cabarrús, disillusioned with the prospects of providing supplies for the Army and Navy, proposed expanding the Bank's role in the Canal project. He drafted a memorandum suggesting the Bank assume ownership of the Canal, including the potential incorporation of the Manzanares Canal, with government support through a 20-year extension of the silver extraction privilege.[14]

When the Lemaur brothers learned of the Bank's intentions to request ownership of the canals to continue them to Seville, they were willing to claim ownership of the section of the Canal that corresponded to their late father's old Andalusia Canal project. They interrupted the works that were to begin on the section from Las Rozas to Madrid as a way of pressuring the Bank. These difficulties were followed by other new ones, such as the appearance of diseases among the workers or their desertion from the works, because of a shortage of bread.[15]

By the time the Bank´s directorship changed on June 25, 1790, many key figures who had driven the project had disappeared. With the death of King Charles III in December 1788 and the removal of Cabarrús from the Bank, the new managers observed the project with greater coldness. They noted that there was only activity, although very little, at the El Gasco Dam. Certain circumstances did not help to obtain new support: the estimate of the cost of the works on the Guadarrama Canal, made in 1791 by the Lemaur brothers, exceeded their fathers budget by far. In addition, the Bank's request for ownership of the canals remained unresolved by the government.

The uncertainty as to what the Bank´s definitive relationship with the Guadarrama and Manzanares Canals would be, combined with the reduction of silver extraction in the 1790s, influenced the slowdown of the work and the emergence of new conflicts, which demanded drastic reforms in the administration and technical management of the efforts. In 1796, it was estimated that it would still take two or three years to complete the El Gasco Dam, or even longer, depending on the available

Image 8. Panoramic view of the El Gasco Dam. Source: Comunidad de Madrid. https://www.comunidad.madrid/cultura/patrimonio-cultural/presa-gasco-canal-guadarrama. Creative Commons – Attribution (CC BY 4.0) [Consulted in December 27, 2023].

9

Image 9. Allegorical portrait of Carlos Lemaur, created by Francisco de Goya, engraved by Pierre Philippe Choffard, 1788. Imagen procedente de los fondos de la Biblioteca Nacional de España. http://bdh.bne.es/bnesearch/detalle/bdh0000292652. Creative Commons – Attribution (CC BY 4.0)

workforce. The final blow to the project came from the partial collapse of the El Gasco Dam, which occurred on May 14, 1799. The dam broke because after an intense storm, water accumulated and parts of the wall in the interior cells collapsed.[16] (Image 8)

d. The suspension of the works

After the partial collapse of the El Gasco Dam in 1799, the Bank was relieved of the management and administration of the Guadarrama and Manzanares Canals (Royal Order of December 12, 1799). This responsibility was shifted to the Post and Roads Board, to which the Bank would henceforth pass a monthly amount of money intended to finance the works. After some failed attempts to take over the property and being separated from the management of the constructions, the Bank of San Carlos continued to be linked to the project only through its financing. However, in 1802, the transfer of capital to the Post and Roads Board was interrupted due to lack of funds. This led to the building coming to a standstill.

In 1829, the State canceled the overall debt of 316.6 million reales, accumulated over nearly 50 years with the Bank of San Carlos. This debt included overdrafts from the Guadarrama and Manzanares Canal projects. In exchange, 40 million reales in cash was paid to the shareholders of the Banco Español de San Fernando, the direct predecessor of the Banco de España, ensuring that no outstanding State debt remained with the Bank of San Carlos for the canal and dam works. (Image 9)

Corollary

The construction of the Guadarrama and Manzanares Canals aimed to improve the Court with vital supplies in a more efficient manner and the Bank's directors were convinced of its future profitability. However, when the failure of the Army and Navy supply contract became evident, Cabarrús proposed shifting the investment burden to public works. His vision was not for the Bank to act as a constructor or administrator but as the owner of the canals, with the goal of profiting from their successful operation. Although the Government did not accede to his request and in fact withdrew its competence over the canals in 1799, it had already invested more than 5 million reales. Professor Pedro Tedde, who wrote extensively on the construction of the canals between the centre and the peninsular periphery in the 18th century, remarks that: "it is remarkable that Cabarrús already in 1780 anticipated three basic characteristics of the future railway plan: the considerable capital formation on the basis of a joint-stock company, the attraction of voluminous French investment, and the construction of a transport network running parallel to the main already existing roads."[17]

Image 10. El Gasco Dam. Source: Google Earth. (s.f.). http://google.es/earth/
This map included data from Instituto Geográfico Nacional. [Consulted in December 27, 2023].

Recently, remains of materials from the El Gasco Dam and the Guadarrama Canal, as well as roads, constructions, quarries, and other elements associated with it, have been identified in the municipalities of Torrelodones, Galapagar, and Las Rozas de Madrid. Considering the value of these infrastructure relicts as a vestige of a large-scale and relevant historical engineering project, the Community of Madrid has declared it an Asset of Cultural Heritage[18] in the category of Cultural Landscape. The Historical Archive of the Banco de España is proud to have been the primary source of research for the initiation of the dossier based on an exhaustive investigation of its papers. (Image 10)

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3 Cited by Tedde, P. (1988), pp. 370-371.

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5 AHBE, Secretaría, Real Cédula de creación del Banco de San Carlos, de 2 de junio de 1782. C. 682

6 AHBE, Governing Bodies, Board of Directors of May 7, 1785. L. 134, ff. 389-412; Fourth General Shareholders' Meeting of December 29, 1785, L. 2780, ff. 85-90.

7 AHBE, Governing Bodies, Board of Directors of June 9, 1785. L. 134, ff. 500-502.

8 AHBE, Governing Bodies, Board of Directors of November 9, 1785. L. 135, ff. 465-515.

9 AHBE, Governing Bodies, Board of Directors of November 9, 1785. L. 135, ff. 463-464.

10 AHBE, Governing Bodies, Board of Directors of January 18, 1786. L.137, ff. 26-27.

11 AHBE. Governing Bodies. Board of Directors, August 9, 1786. L. 138, ff. 1-5.

12 AHBE. Governing Bodies. Board of Directors of December 17, 1786. L. 138, ff. 326-329; Fifth General Shareholders' Meeting, December 18, 1786, ff. 314-317.

13 Sánchez Lázaro, T. (1995), pp. 101-112.

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15 AHBE. Governing Bodies. Board of Directors, June 17, 1789. L. 144, ff. 120-123.

16 AHBE. Governing Bodies. Board of Directors, May 17, 1799. L. 174, ff. 36-43.

17 Tedde, P. (1988), pp. 371-372.

18 Decree 206/2021, of September 1, of the Governing Council of the Community of Madrid. Official Bulletin of the Community of Madrid. Number 212. September 6, 2021, p. 51-53.

Foundation, transformation and consolidation of a bank and pillar of the economy in Southern Italy

Alex Cooper

Abstract
This study aims to examine the role of the Bank of Sicily from its creation in its embryonic form of the *Cassa di Corte*[1] in 1843 until its recognition *ex jure* in 1867 as one of the fundamental banking institutions in both Sicily and the newly unified Kingdom of Italy. The importance this institution had for the economy of the island, for both positive and negative reasons, will be outlined by focusing on two aspects: firstly the relationship between the Sicilian Treasury and the Neapolitan House of Rothschild under C.M von Rothschild and Sons and the House's agents; secondly the particular Bourbon financial legislation or what is termed the "riscontrata", that is the recognition, or not, of the Sicilian bank's financial instruments throughout the Kingdom of the Two Sicilies[2] and the impact this had on the island's socio-economic and political scene. These two features are key factors to understanding the questions concerning the unpopularity of the House of Bourbon, as well as issues which have plagued the country to the present day, the north-south divide, or the economic "gap" between the two-halves of the same nation (Malanima and Zamagni, 2010). The negative relationship that was created in 1849, between Naples (the 'Banco Regio al di qua del faro') and Sicily (the 'Banco Regio dei reali dominiial di là del faro') is paramount to understanding a duality which existed in the south itself. This duality, or desire for autonomy, characterised the nineteenth-century struggle to maintain both institutions: the Bank of Naples and the Bank of Sicily. The former was recognised in 1862, the latter in 1867. This autonomous spirit survived until the third millennium: the Bank of Naples fused with Intesa San Paolo in 2002; while the Bank of Sicily was absorbed by UniCredit in 2010. What remains of the Bank of Sicily's patrimony today, the architectural magnificence of its buildings is a tangible legacy of a grandiose past.

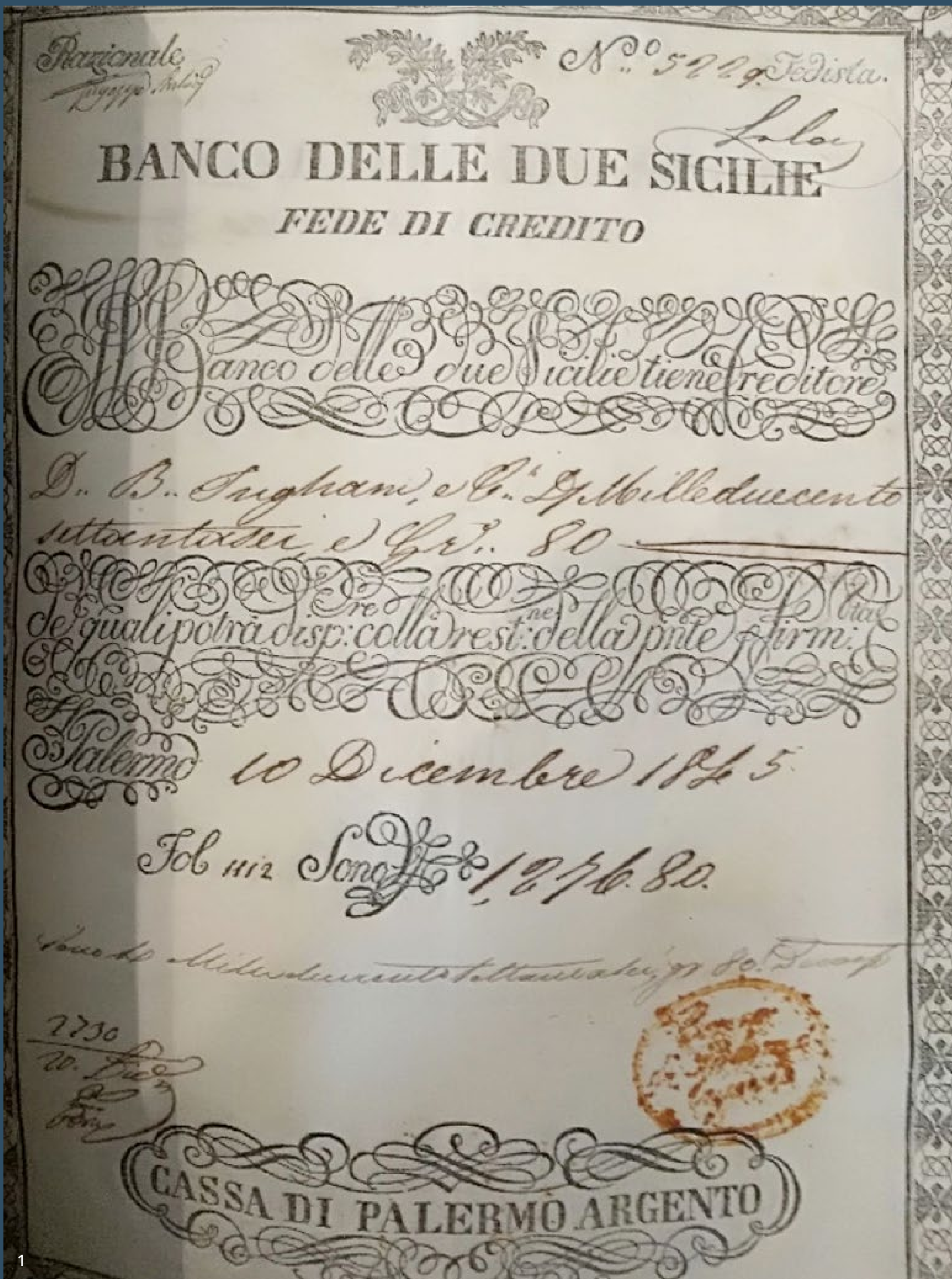
Keywords
Tavola, Bank of Sicily, Ingham, Florio, Carl Mayer von Rothschild of Naples, Unification, Rothschild agents.

Introduction: Setting the Scene for the Nineteenth Century.

The Bank of Sicily was created in 1867 alongside the Bank of Naples, which was founded in 1863, after Unification in 1861. However, the Sicilian bank's origins can be sought in a medieval institution, the so-called "Tavola" instituted in 1554 and suppressed in 1855. In Sicily there were two "Tavole": the *Tavola Pecuniaria* of Palermo and Messina.[3]

From 1282, the Sicilian Vespers, to 1815, the Congress of Vienna, Sicily had been separated from Naples. These two distinct kingdoms were united in 1815 with the creation of the Kingdom of the Two Sicilies under Ferdinand I of Bourbon. The ambitions of European powers, namely the British and the French had exacerbated this division during the Napoleonic Wars, while others such as the Swiss, exercised an imperceptible, silent colonialism (Zichichi, 1988). Naples had been under French rule, briefly during the Parthenopean Republic of 1799 and then under Joseph Bonaparte and his successor Joachin Murat from 1806 to 1815, while Sicily was a British protectorate from 1806 to 1816, with Lord William Bentinck, culminating in the British Constitution of 1812 in Sicily and the short-lived regency of Francis I.

The main role of the *Tavole* of Palermo and Messina was to provide a safe place for deposits, and a source of capital for the local government's administration and to pay the taxes requested by Naples. The Tavola had no function as a commercial bank, which would urge the business class to seek solutions to business credit with foreign bankers on the island or abroad. In Naples in 1794 eight banks had fused into the Bank of Naples or Cassa di San Giacomo (1808) which became the main bank in Naples, where the Bourbons concentrated their financial operations. Besides the Bank of Naples, only the Monte di Pietà remained, a forerunner of what modern Europe would institute as pawn-banks (Carboni and Fornasari, 2019).[4] In 1808 the national Bank of the Two Sicilies (also known as the Banco di San Giacomo) was given a French imprint under the Napoleonic codes and other financial institutions, such as the Neapolitan Stock



BANCO DELLE DUE SICILIE

FEDE DI CREDITO

Il Banco delle due Sicilie tiene creditore

de' quali potrà disp: colla rest: della pnte firm:

Palermo 10 Dicembre 1845

Fol. Sono D. 1276.80

CASSA DI PALERMO ARGENTO

1

Image 1. Fede di credito from the Cassa di Corte of the Banco delle Due Sicilie which operated from 1843 to 1848. The Fede is in Benjamin Ingham's name for his firm dated 10th December 1845 for 1,276.80 ducats.

Exchange created in 1778, were also reformed according to the French model.[5]

When Ferdinand I of Bourbon became king of the Kingdom of the Two Sicilies, many of the *ancient regime* bankers had disappeared. War had transformed traditional markets and created others (Karlsson and Hedberg, 2021).[6] The first financier to urge investment in the potential Sicily offered was Giuseppe De Welz (De Welz, 1822). However, De Welz's proposal to finance infrastructures on the island was abandoned with the *Carbonari* uprisings in 1820.[7] Restoration charges in 1821 saw the million-ducat government loan for roads become a loan to pay for the Austrian army. The bankers Falconnet and Appelt were joined by Carlo Mayer von Rothschild, sent by Metternich to ensure Austria received payment. It is here that a contradictory phase of banking history begins- the Rothschild loans from 1822 to 1858 created extraordinary funding of the Bourbon public debt, which crowded out any competition, contrasting with the suffocating tax exactments on Sicily (Schisani et al., 2021).

This study is structured in the following way: firstly, an analysis of the existing literature will focus on two aspects, the House of Rothschild in Naples, and its loans to the Sicilian Treasury and secondly the role of Bourbon financial legislation on the banking system in Sicily which resulted in a dichotomy between the banks of Naples and Sicily. The section on methodology will explain the use of the archive material to examine the questions of who the Bank's clients were and how they used it, for example entrepreneurs such as Ingham and Florio. Lastly, a discussion will be presented on how the bank managed to build economically, socially, and politically the identity that it conserved, despite Cavour's introduction of a National Bank for the Kingdom of Italy. Finally, conclusions will be drawn on the overall importance of the Bank of Sicily in the region's past and for its future.

Literature Review

Looking back on the House of Bourbon's financial measures from 1794 to 1859, the Sicilian historian Trasselli commented:

Late and badly, the Bourbons decided to create a banking organization, weakened, moreover, by a misplaced Neapolitan rivalry, misplaced above all because it intended to establish a new Neapolitan colonization. [….] foreign bankers took advantage of it, the Rothschilds took advantage of it, who in Naples were able to place securities of European loans…..the Neapolitan money went to finance the German railway constructions in Baden; renounced the creation of modern banks and in the meantime tolerated that the banks of Franco-Swiss merchants lived in the Two Sicilies and that the few industrial possibilities of Sicily were exploited by the French and the English. (Trasselli in Guiffrida, 1971, p.13).

Indeed, the Bourbon's organisation of the banking system in the Kingdom of the Two Sicilies reflects a geographical duality reproduced by the literature: the clear division in focus between the banking institutions of Naples and Sicily, held together with the over-arching feature of the Neapolitan House of Rothschild and the role it had from 1822-1860 in determining its own success and shaping the economic and financial structure of Sicily, which, despite a subaltern role, was characterised by a fierce spirit of autonomy.

The literature reveals a net separation between the two most authoritative scholars of the respective banks, Demarco (1996) and Giuffrida (1968, 1971). Additionally, Giuffrida analysed the significance of the Neapolitan House of Rothschild and its agent Christian Fischer in Sicily (Giuffrida,1968).

> The lack of any structure that resembled a modern-day bank system until 1843 in Sicily meant that alternative structures and methods were sought to finance credit.

The lack of importance given to the financial institutions in Sicily has been strengthened by the notion that documentation concerning the island is scanty (Bidischini et al, 1996). Much documentation in Sicily has been lost or destroyed since Unification, which has led to a more traditionalist interpretation of the economic and social history of the island (Mack Smith, 2005). The idea of a two-speed Italy in 1861, with a strong north and an economically backward south, has permeated much literature of the nineteenth century, fuelled by nineteenth-century economists themselves, such as Ludovico Bianchini (Bianchini, 1859).

As far as the banking structure was concerned, the lack of any structure that resembled a modern-day bank system until 1843 in Sicily meant that alternative structures and methods were sought to finance credit. Private banks, both Sicilian and foreign, supplemented the role of the Tavola. Bills of exchange, credit and promissory notes were paper forms of moving money around the realm and abroad as Sicilian coinage was scarce and Spanish dollars or silver "piastre" were imported at the beginning of the 19th century at high risk. Pioneers of these bills or "ghost-money" which were the contemporary merchants' flexible friends (Bolton and Guidi-Bruscoli, 2021), paved the way for pre-Unification banking.

After repaying the Austrian indemnity (1822-27), the embezzlement of La Lumia (1824), and general

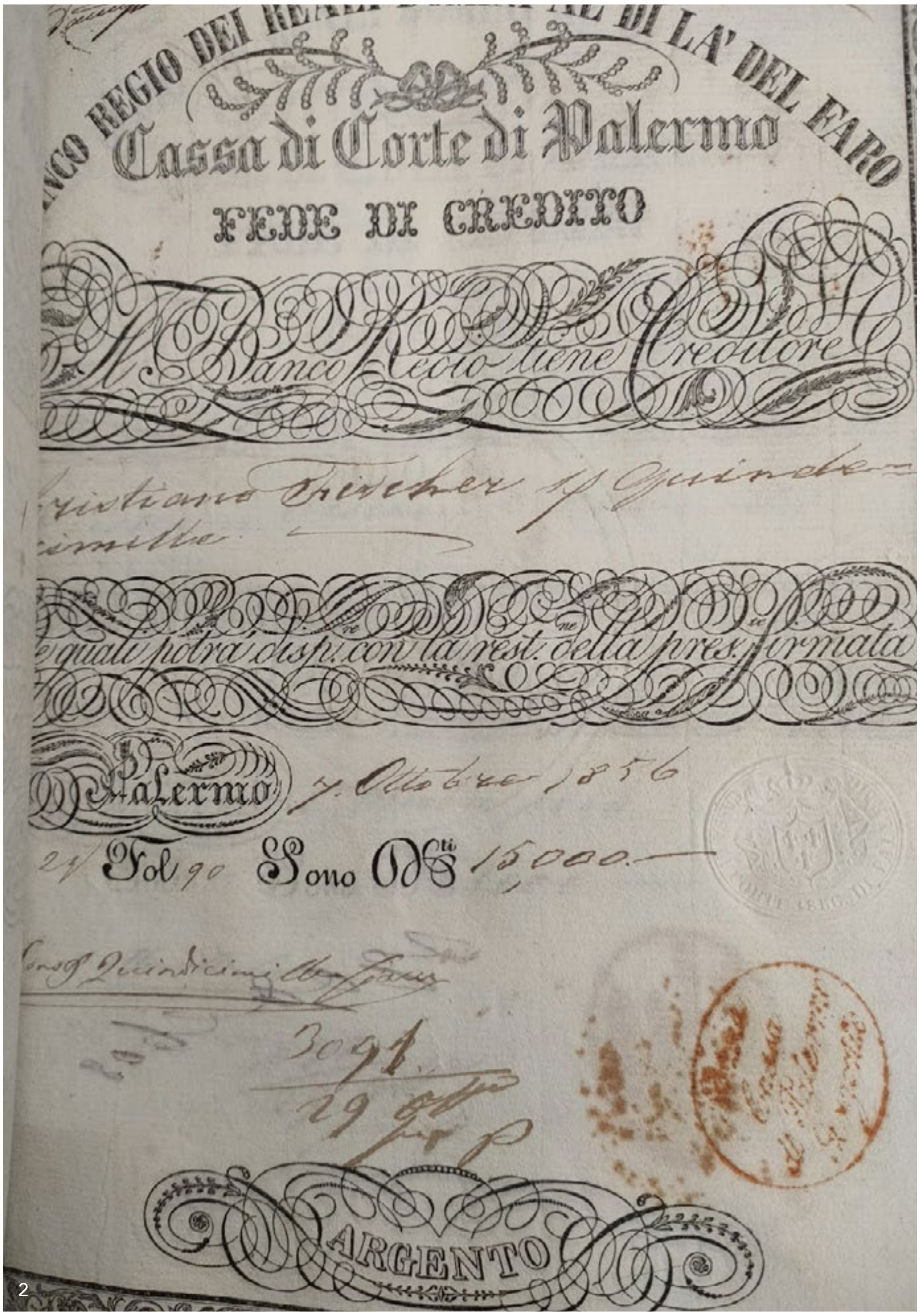

REGIO DEI ... DI LA' DEL FARO
Cassa di Corte di Palermo
FEDE DI CREDITO
Il Banco Regio tiene Creditore
ristiano Fischer D. Quindecimille
e quali potrà disp. con la rest. della pres. firmata
Palermo 7. Ottobre 1856
24 Fol 90 Sono D.ti 15000.—
ARGENTO
2

Image 2. A fede di credito from the Banco del Regio dei Reali Dominii al di la del faro, Palermo branch, which operated from 1850-1860. The fede is in Christian Fischer's name, dated 7th October 1856 for 15,000 ducats.

Like their British contemporaries in London who formed an upper stratum through a process of "enculturation" and who dominated the City Boards (...), in Sicily money created wealth and prestige with similar posts on the boards of the top local financial institutions.

mismanagement, the Tavole needed serious reform.[8] Although the *Tavole* provided deposit facilities, and collected taxes, businessmen relied on private banks to finance their commerce. The private banks were run by foreign and local businessmen connected to the financial markets of London and Paris. Among the foreign bankers in Palermo and Messina Ingham, Seager, Fischer, Mendham & Caillier, Walser & Co were quoted in the guidebooks of the times,[9] while local businessmen Verde, Florio, Chiaramonte Bordonaro, Villa Riso and Varvaro dominated Piazza Marina in Palermo. The long-awaited creation of the *Cassa di Corte* in 1843 by royal decree, literally translated as "the Court's cash-desk", operating side-by-side with the medieval *Tavola* in Palermo and Messina was the first step to introducing a more effective banking system and to winding-up the *Tavola.*[10] The *Tavola* resisted for another decade, but the imprint given to the Cassa and its popularity quickly supplanted the Tavola. Unlike the *Tavole,* the *Cassa* could issue *fede di credito* recognised throughout the kingdom and used by local and foreign businessmen alike. The *Cassa di Corte* collected deposits and was primarily a deposit bank collecting silver and copper, like the *Tavola*. It was used by the Treasury and the local government to collect coinage but issued *fede di credito, polizze or polizzini* so that paper money circulated freely around Sicily and around the realm.

The" fede di credito" (Images 1 - 2) was not a novelty on the financial scene in Italy.[11] The earliest surviving document from the archives of the Bank of Naples is a *fede di deposito* of the Monte di Pietà dated 1569. By 1844 the *fede* issued by the *Cassa di Corte* was not simply proof of a sum deposited there but had the value of currency, with the signature on the back endorsing it, meaning it could be given or received as payment. (Image 3) While entrepreneurs used the *Cassa di Corte* to deposit cash and obtain *fedi di credito* for their local operations, the Bourbons used it to pay for its administration, through the Treasury in Sicily, paying the hefty interest on the Rothschild loans.[12] The Sicilian Treasury had to pay for extraordinary debts, such as the Bourbon's bungling over the sulphur monopoly in 1839, compensating the French *Taix Aycard Co* and the British Sicilian mine owners.[13] Lastly, by 1843 the *Cassa di Corte* also began to hold deposits of state institutions which migrated from the Tavola, with *madre fede* or current accounts, and handled their running costs. Finally in 1849 a "Gran Libro della Sicilia" was created, a separate public debt register from the "Gran Libro" of Naples which in return for investments in public debt paid its investors a 5% annuity.

Banking was inexorably linked to the socio-economic structure of the cities (Lisle-Williams, 1984). Like their British contemporaries in London who formed an upper stratum through a process of "enculturation" and who dominated the City Boards (Lisle-Williams, 1984), in Sicily money created wealth and prestige with similar posts on the boards of the top local financial institutions.[14] In Palermo, the British merchant banker Benjamin Ingham was on the board of the Chamber of Commerce, and on the Stock Exchange while Vincenzo Florio a leading local entrepreneur was on the Board of Directors of the Banco Regio, later Banco di Sicilia, as well as on the Stock Exchange. The Bourbons also granted entrepreneurs "privative" or custom duty monopolies for certain commodities. Thus, Florio had the monopoly of cinchona as well as tobacco. Power was also consolidated through marriage and the "aristocratisation" or gentrification of

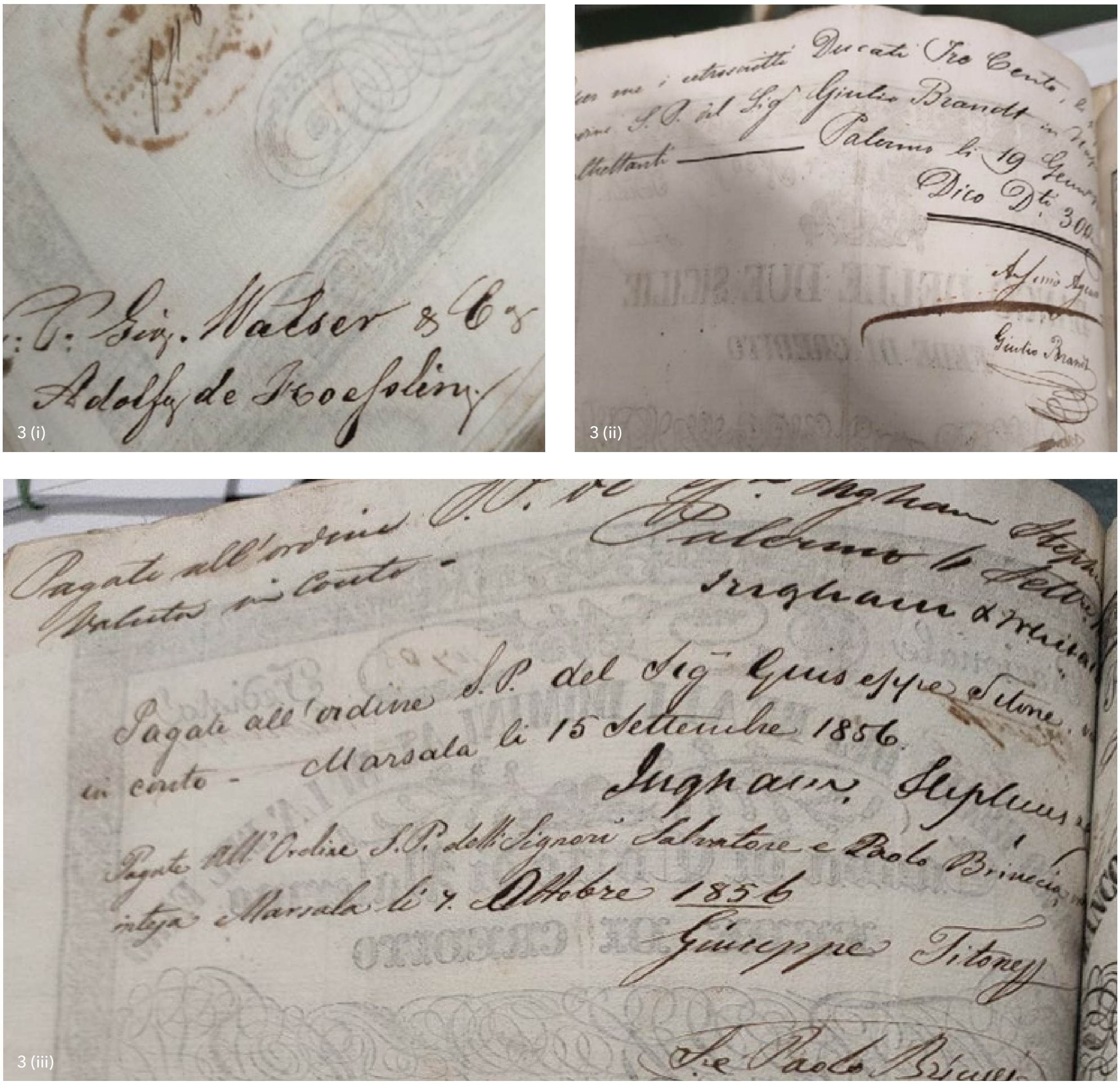


Image 3. Endorsements on the back of the fede di credito showing a simple endorsement (i) Sig. Walser & Co (alias Grill's bank in Messina) and Adolfe de Hoessling; (ii) A fede from Arsenico Aycard endorsed to pay Giulio Brandt in Naples, signed Arsenio Aycard and Giulio Brandt and (iii) A fede of Bejamin Ingham endorsed to pay Giuseppe Fitone in Marsala in September 1856, who then re-endorses the fede to pay Paolo Brinecia of Marsala in October 1856.

The relationship of many bankers in Sicily with the Rothschild house was a contradictory one, but also a stimulus to striving to create alternative banking structures, free from the monopoly of Naples.

entrepreneurial families. Money bought land but also titles. Vincenzo Florio's son Ignazio's married Giovanna D'Ondes Trigona the daughter of Count Gallitano, while Ingham, already Baron of Scala and Manchi, married the Duchess of Spatafora. In contrast, marriage sometimes was not endogamic or based on acquiring titles, but strictly related to the banking profession: for example in Messina, the Lellas married into the most important banking family, the Grills, whilst another important family, the Fischers, married into the Lella family (Fazio, 2001).

The House of Rothschild, Naples.
The intervention in 1821 of the House of Rothschild in the fortunes of the development of the money market in Sicily had repercussions which lasted until 1861 and after Adolfe Rothschild's departure from Naples (Schisani, 2009). Although Carl Mayer von Rothschild's loans made in 1824 and 1825 were not a revolution in international banking, they were for the Kingdom of the Two Sicilies (Neal, 2022). Neapolitan bonds were issued in sterling on the British market, and European markets too. They were a success, surviving the "Panic" in 1825.[15] As despotic states became good re-payers (Flandreau and Flores, 2009), so the Bourbons relied on the Rothschilds until 1860. Carl Mayer managed to make the Bourbons a credible investment on the European money market in London, Paris, and Naples (Schisani, 2010). Moreover, sovereign debt became a lucrative interest payer. Carl Mayer's own share of the Gran Libro was worth an annuity of 1,041,021 ducats in 1846 (Ostuni, 1992, np).[16]

The relationship of many bankers in Sicily with the Rothschild house was a contradictory one, but also a stimulus to striving to create alternative banking structures, free from the monopoly of Naples. On the eve of unification Florio had gained approval for an independent bank together with the top entrepreneurs in Sicily to promote commerce and business on the island and compete with the *haute banque* of Naples. In 1859 the "Banco di Circolazione per la Sicilia" was approved but never implemented, pre-empted by the arrival of Garibaldi in 1860 (Cancila, 2020). The move made by Florio and other entrepreneurs to create a commercial bank to protect their interests was not unique to the money market of the time. A parallel move was made by Heath & Co in London to counter the rise of new forces on the market in the 1850s (Cottrell, 2012). The rise of new banks such as the Pereires' *Credit Mobilier* or *Credit Lyonnaise* enhanced existing houses' defensive attitude.[17] Indeed, established British merchant banks such as Heath & Co, Gibbs and Dobree, even Huth crowded together against the rising competition creating the *International Financial Society* (IFS) of 1863 (Cottrell, 2012).

However, the inflexible attitude of both the House of Bourbon and the House of Rothschild towards the Bank of Sicily became more evident after 1848. The *fedi* of the short-lived revolutionary National Bank of Palermo and Messina, were not honoured by Naples, the so-called "riscontrata."[18] Thus, for the following nine years fedi issued in Sicily could only be used in Sicily, whilst the relentless insistence of the Minister for Finance for punctual repayment for the disruption in tax payments from 1848- 1849 had profound economic and political consequences for Sicily. Anti- Sicilian legislation subjugated Sicily economically to Naples.[19] Denying the newly constituted *Banco Regio*[20] in Sicily the "riscontrata" for nine years, fuelled speculation and made private banking the only alternative sources of credit. The wealthy private bankers could look abroad, while the lack of business credit outside of Palermo and Messina coupled with the shortage of decent silver currency in circulation presented serious problems for the socio-economic stability on the island (Giuffrida, 1968). Resentment grew into a schism between Naples and Palermo, reinforcing the political division created after 1848.

However, by 1858 the darkest moment of crisis for the Bank of Sicily was over, and an upturn in grain

What emerges from the research is a complex picture of international and local financial activity, emphasising the bank's commitment to its local community in general, while underlining the over-arching networks of haute banque finance.

supplies alongside the payment of the Rothschild loan interest, meant that by December of the same year it was able to create the "Cassa di Sconto" or Discounting House with one million ducats from its reserves.

Post-Unification and the Struggle to Autonomy 1860-1867

Unification began another phase in the long battle for autonomy and for an institution tailored to the needs of the island and its society. Cavour, the new Italian Prime Minister, intended one National Bank to suffice as the banking institution of the Kingdom of Italy. In 1862 the National Bank opened in Palermo and gold, not silver, became the currency of the new Kingdom. The Bank of Sicily's Director Antonino Radicella defended his bank's right to co-exist with Cavour's National Bank, being in favour of a plurality of financial institutions to aid commerce and industry in Sicily. Radicella questioned the logic behind Cavour's insistence to monopolise the banking system. In 1863 the Bank of Naples obtained a decree to maintain its autonomy and initially the idea to fuse the Bank of Naples with the Bank of Sicily was proposed. This idea soon floundered because in 1865 when Radicella pointed out that the Bank of Naples was heavily indebted to the Bank of Sicily, as the Bank of Naples issued the new fede in favour of the National Bank which were then cashed in Palermo or Messina. Thus, once again Naples suspended the "riscontrata." Hence Radicella used the Bank of Sicily's *fedi* and kept the National Bank's *fedi* as a reserve. Making the bank of Sicily's *fedi* the only legal tender in 1866 instead of closing the bank created a positive turnover. By contrast many bankers reacted ambiguously; for example Ingham bought shares in the National Bank as did Florio, who bought enough of them to secure himself a place on the bank's board in 1861 and inclusion on the national board in 1866 (Cancila, 2020).

Finally, having abandoned the idea to fuse the Bank of Sicily with that of Naples the only feasible alternative was to grant it autonomy, and in 1867 the Bank of Sicily was legally constituted. It remained an issuing bank until 1926.

Methodology

This study uses archival material from the Bank of Sicily's archives at the Lauro Chiazzese Foundation, and from the State Archives in Palermo.[21]

The following research questions posed by this study were analysed using the above sources: who was using the Bank of Sicily and why, and secondly how did the bank survive and compete with other institutions conserving its own identity after Unification?

The records at the Lauro Chiazzese Foundation span both the *Tavola* and the *Bank of Sicily.* For practical reasons the focus of this brief study were the records concerning the Bank of Sicily, 1844-67. The records contain the monetary transactions of the bank from 1844 in the form of *fedi di credito,* the cash registers and the records of the administration of the bank's Board of Directors. The Board of Directors' registers and minute books were not included in this study as they concern staff matters rather than banking transactions. The daily registers of the bank were examined to analyse deposits and payments. The credit certificates or *fedi di credito* were also examined for a dual purpose: to establish who credit was granted to, and thus understand who had current accounts at the bank; and to analyse what the holder of the credit note did with their credit by ascertaining whether it was used as a cashier's cheque and, if so, where or to whom credit was paid. The State Archives of Palermo were consulted to evidence the correspondence between the government ministers, the Lieutenant General of Sicily, and the Rothschild agents.

What emerges from the research is a complex picture of international and local financial activity, emphasising the bank's commitment to its local community in general, while underlining the over-arching networks of *haute banque* finance. The Rothschilds of Naples could collect bills from businessmen through their agents in Naples and Sicily and send them to the financial markets of London and later Paris. However, the same agents used the British private bankers like Ingham who sent bills of exchange and finance bills to the British financial market via merchant banks such as Heath & Co and Baring Brothers & Co.[22]

Findings

Firstly, the *fedi di credito* in silver show the amounts of money issued by the *Cassa di Corte* and *Banco Regio* and the transactions carried out by the clients. Although unfortunately, the "pandetta" or current account records are missing, some idea of individual client's wealth can be gauged from the cash registers and the sums they exchanged regularly. What is significant is the distribution of clients. There is a clear indication that the bank was used by local and foreign businessmen. More *fedi di credito* were issued to Sicilians than to foreign merchant bankers like Ingham, Seager or Morrison, although they used the bank regularly. The hypothesis is that British merchants used the bank more as a place to deposit local currency rather than for business transactions. This can be ascertained by the fact that they deposited local currency regularly, yet only occasionally made use of *fedi di credito* and for small amounts. Instead, the local entrepreneurs like Vincenzo Florio conducted a great deal of business at the bank, for his firm *Ignazio & Vincenzo Florio*, but also for his own account.

The fedi themselves show a significant flow of money around the island, not just from Palermo to Messina, but also other towns such as Catania and Cefalù. This can be demonstrated by the endorsements made on the fedi, which also show that the fedi were endorsed and then re-endorsed by their holders. Moreover, the fedi show a dual role played by agents such as Fischer and Kaisser & Kresner. Fischer was the Neapolitan Rothschild agent, while Kaisser & Kresner were Meuricoffre's agents, and all were regular clients at the bank. Thus, despite there being no "riscontrata" after 1849 this did not hinder such business.

The *fedi* also show the complex relationship between the state and the bank, a significant percentage and the largest sums being issued by the Treasury through the Bank to Christian Fischer between 1844 and 1858. Whether these sums were being paid purely to Fischer in his role as agent of the House of Rothschild's is more difficult to establish, as Fischer had his own banking house in Palermo. The *fedi* issued to Fischer by the Cassa di Corte and the Banco Regio range from one thousand to ten and twenty thousand ducats on average.[23] Fischer was the most important client in terms of amounts of money deposited at the bank and fede issued in his name between 1844 and 1858. As the House of Rothschild in Naples kept no records of the names of its clients, it is difficult to establish the business strategy Fischer followed with them (Rovinello, 2005). The information on Fischer's *fedi* as to who sums might have been paid to apart from the Rothschilds or his own House is rare with a few instances showing payments made to houses in Messina, endorsed by his signature to the Swiss Fischer Brothers, and the Messinese banker Rizzotti (Demarco, 1996). The *fedi* cashed after Fischer's death in 1858 by Locher, probably a partner in Fischer's own banking house in Palermo are signed *fedi*, the beneficiary being *Walser & Co* the Swiss bank in Messina run by Federick Grill, the most important banker in Messina in the period 1803-1868. A formality on Locher's behalf, given that the transaction was conducted posthumously, but one which reveals another link between the two Swiss houses.

> Much still needs examining in the relationship between the Bank and society on the island, and the archival material at the Chiazzese Foundation is a key element in understanding this.

As for state institutions, both records of "madre fede" and "fede" exist, for example payments made by the Treasury of Sicily, while records of transactions made by the Commission responsible for renovating the Cathedral of Monreale or deposits made by the Monte degli Orefici ed Argenteri[24] of Palermo are on "madre-fede". However, both types of *fedi* were kept and bound in the same silver cashier's desk book. The "madre-fede" were used to refer to transactions between the bank and state-run concerns. However, normal *fedi* in payment from the Sicilian Inland revenue or "ricevitoria" to various tax offices in towns outside Palermo such as Corleone, Cefalù also exist, as do *fedi* issued by the emergency fund for public works or "Cassa Soccorso" as payment. Generally, *fedi* were issued to private individuals, giving them more flexibility as they could be cashed in or endorsed as they liked.

Conclusions

The Protest made in 1850 by the Sicilians after the Bourbon Restoration in Sicily records the island's financial plight:

Subject to all the plundering of colonial finance… the Sicilian finance was exhausted by 30 years of robberies by the Neapolitan government, its industry paralyzed by the miseries of the people, every productive force destroyed by ancient duties, and by others recently imposed and from those which the insatiability of the government will impose, the state will add new and unjust debts to the old and legitimate ones, and will not be able to avoid a forthcoming bankruptcy in the face of the old and new creditors.[25]

Despite all the adversities, bankruptcy did not occur. Filangieri, the Lieutenant General of Sicily, managed to govern Sicily with the Rothschild's loan, and the bank of Sicily had regained stability and profitability by the eve of Unification.[26] The paternalistic control exerted by the Bourbon crown had been contradictory both in its legislation concerning the economy in Sicily and towards the entrepreneurial class on the island. The Bourbons had attempted to modernise banking services, but at the same time had limited Palermo by placing it under the constraints of Naples. The dynamism of the local business class in investing in the bank and finding alternative sources of finance to promote commerce on the island and in the UK and US is notable (Cancila, 2020; Brancato, 1993). The trust in a Sicilian bank for Sicilian business created from years of misplaced rivalry and isolation from the rest of the Kingdom of the Two Sicilies was also notable and a legacy that Radicella managed to transform into the Banco di Sicilia in 1867. Radicella was aided by a common sense of "Sicilianness," already evident in the Protest of 1850. The dichotomy between Sicily and Naples in the 1850s and then the resilience of the two institutions—the Bank of Naples and the Bank of Sicily—and their wealth is also a contrast to the traditional interpretation of an economically backward south with an inadequate financial system and lack of an entrepreneurial class and industry. A revisionist approach casts some doubt on such a direct interpretation. Sicily was the world's leading exporter of sulphur and essential for many European countries' industrial success (Cunha, 2019).

The archives demonstrate the complex networks of business relationships. Although these bankers had their own private banks both in Palermo and Messina, the credit issued by the Bank was respected and exchanged among them. Even if Cavour's new National Bank co-existed with the bank of Sicily, decisions like Florio's to sit on both boards of the banks shows the ability of the entrepreneurs in Sicily to immediately "localise" their influence and protect their business interests which in turn protected the social equilibrium of the island and its economy. As Giuffrida wrote "The creation of an autonomous Bank of Sicily in 1867… was the first act of that *decolonisation* the second act of which was Autonomy achieved in 1946" (Giuffrida, 1971, p. 15).

Clearly, much still needs examining in the relationship between the Bank and society on the island, and the archival material at the Chiazzese Foundation is a key element in understanding this, as are the archives of entrepreneurs like that of Ingham. By rebuilding their business environment and understanding their business strategies more light can be shed on the money markets of the nineteenth century and their role in creating the basis of the modern markets of today.

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1 The "Cassa di Corte" in Palermo and Messina were branches of the Royal Bank of Naples, established by Ferdinand II in a decree of 1843. The Cassa di Corte lasted until the Revolution of 1848 when Sicily proclaimed its own National Bank. On the subsequent restoration of the Borbons in Sicily in 1849 a new bank was created the Banco Regio al di la del faro, the Royal Bank of Palermo and Messina(translation-The Royal Bank Beyond the Lighthouse) which was analogous to the Royal Bank of Naples-il Banco Regio al di qua del faro (translation- The Royal Bank on the other side of the faro- i. e., the mainland_ these names come from the medieval realm before 1282 and the Sicilian Vespers). However, this bank could not exchange its credit notes "fedi di credito" outside Sicily, as the Royal Bank of Naples refused to recognise them.

2 The Kingdom of the Two Sicilies was proclaimed in 1816 after the Congress of Vienna when Ferdinand I united Naples and Sicily under his rule. The two parts of the Kingdom had been separated since 1282 into the Kingdom of Naples and the Kingdom of Sicily after the Sicilian Vespers- a revolt against the French Angevin rulers in favour of the Spanish Aragonese. This meant that even though Ferdinand I was ruler of both states from his incoronation in 1759, each kingdom up to 1816 had its own independent monetary system, weights and banking institutions. Sicily had the "Tavole Pecuniarie" established in 1554, closed in 1855.

3 The Tavole Pecuniarie were banks which accepted deposits from private individuals, religious orders and state institutions. The Sicilian treasury kept its accounts there, collecting taxes and paying state expenses through the Tavole. They were made obsolete by the Cassa di Corte in 1843 but survived until 1854 when Ferdinand II closed them.

4 The Monte di Pietà were Borbon institutions and forerunners of pawn-banks and microcredit institutions, these institutions also received charitable donations from rich nobles and made loans on property, while the Monte Frumentari were institutions which gave seeds to farmers in exchange for crops, selling excess grain for profits and lending money at 5% interest.

5 The Napoleonic commercial code introduced in 1807 reorganised the Bourbon financial institutions (FerdinandI had already unified the medieval Monte di Pietà in 1794 under one structure the Bank of St James or the National Bank of Naples) by trying to enforce the French model onto the National Bank of Naples, the Stock Exchange and the Chambers of Commerce.

6 Karlsson and Hedberg (2021) argue firstly that belligerent countries sought new markets in "a widespread substitution of new for old trase channels" and as a result neutral states trade increased during 19th century warfare: "belligerent-neutral trade was either unaffected or even increased during times of war" in "War and trade in the peaceful century: the impact of interstate wars on bilateral trade flows during the first wave of globalization, 1830–1913." *The Economic History Review* 74(3) page 810.

7 The Carbonari Uprisings of 1820-1821 against the Bourbons, spread from Spain to other absolutist states. The rebels in Palermo wanted the 1812 Constitution and more civil rights. In Sicily the revolt was put down by the Austrian troops sent by Metternich at the Congress of Ljubljana.

8 Camillo La Lumia a clerk at the Tavola of Palermo misappropriated funds and escaped to Malta with 18.284.87.5 ducats on 3rd September 1824. In Guiffrida, 1971, p102.

9 Dennis, G. (1864). *A handbook for travellers in Sicily: including Palermo, Messina, Catania, Syracuse, Etna, and the ruins of the Greek temples,* London: J. Murray.

10 Bankers had urged the Borbons in 1821 to create new institutions, De Welz had written a review stating the need for a bank in Sicily, see De Welz, G. (1822). *Saggio su i mezzi da moltiplicare prontamente le ricchezze della Sicilia*, Nella Stamperia di F. Didot.

11 The fede di credito started as deposit certificates but quickly developed into two types "estinte per cassa" that is paid directly to whom presented the fede or "per banco" which was done without the actual movement of cash, but with a transaction of debit or credit recorded on the bank's books. The bank had a "giornale di cassa" and a giornale di banco" for both types of operation. Each "fede" had an indication on it of the page or "foglio" in the bank's books or "libro maggiore" where the main current account was registered. When the fede was used "per cassa" only the indication of the account the money was drawn from was shown, when it was "per banco" it indicated the account which was debited and the account to be credited. The fede was like a draft and transferrable when endorsed by the holder's signature.

12 On becoming part of the Kingdom of the Two Sicilies, Sicily had been given a quota of the taxes to pay called "peso commune" based on the population of its cities. The percentage of taxes enacted on the island by the central government in Naples was roughly a quarter of all the taxes paid in the Kingdom. This would sharply increase with loans after 1822 and 1849 to the island to pay for the restauration of the Bourbons after the Carbonari revolts and the 1848 revolution.

13 Taix Aycard et Cie won the monopoly for sulphur production and customs duties in Sicily in 1838 which sparked off the so-called "Sulphur War" of 184 with Great Britain.

14 Lisle-Williams, M. (1984). "Merchant banking dynasties in the English class structure: ownership, solidarity and kinship in the City of London, 1850-1960." *British Journal of Sociology:* 338 and Table II p.341.

15 The 1825 Panic refers to a financial crisis when Latin American and South European (Portugal and Greece) securities plummeted on the London Stock Exchange. The Kingdom of the Two Sicilies was one of very few sovereign borrowers not to default during this crisis and Flandreau and Flores (2009) conclude this was due to the fact that they "were countries that lacked constitutional checks" Flandreau, M. and J. H. Flores (2009). "Bonds and brands: foundations of sovereign debt markets, 1820–1830." *The Journal of Economic History* 69(3): p.658.

16 Taking one ducat to be worth 4,25 Italian lire in 1861 see R Giuffrida, R. (1968). *I Rothschild e la Finanza Pubblica in Sicilia (1849-1855)*, S. Sciascia page XI, then using a historical converter of currencies <https://inflationhistory.com >where 4.25 lire in 1861 would be worth Euro 24.30 today, means the Rothschild share was immense.

17 Private banks throughout the 19th century moved from being sole financiers (or one family of bankers in the case of the Baring -Hope Contract) of government loans to jointly backing government loans as risks increased and financial markets began to change. New banks emerged like Credit Mobilier and Credit Lyonnaise which challenged older more established banks like Baring Brothers & Co and even the Rothschilds.

18 The *riscontrata* was the exchange of *fedi* between the Royal bank of Naples and the Royal Bank of Palermo which was suspended from 1849 until 1859 after the Revolution of 1848. This meant fede could circulate within Sicily but not on the mainland. However, many agents of Neapolitan bankers such as the Rothschilds and Meuricoffre had accounts in Palermo and used *fedi di credito* in Sicily: for example, Kaissner & Kresner were agents for Meuricoffre, while Christian Fischer was the Neapolitan Rothschild agent in Palermo.

19 Legislation of 1824, and 1843 on customs duties and "cabotaggio" shipping privileged Naples.

20 The "Banco Regio Dei Dominii AL di là del Faro" was inaugurated in 1850, it was the newly renamed *Cassa di Corte* which abolished the Revolutionary government's National Bank in Palermo from 1848-49.

21 State Archive of Palermo, Gancia Section MAS :Ministero e Real Segretaria di Stato per gli Affari di Sicilia presso Sua Maesta in Napoli and :M.L Ministero e Real Segretaria di Stao presso il Luogotenente Generale in Sicilia – F= Ripartimento delle Finanze.

22 The Baring Archives London and the Ingham- Whitaker Archives, Marsala show Ingham's financing of his commerce with bills of exchange against shipments of wine through his London agent Jameson Hunter and fiancé bills on behalf of the Rothschild agent Christian Fischer.

23 Taking one ducat to be worth 4,25 Italian lire in 1861 see R Giuffrida, R. (1968). I Rothschild e la Finanza Pubblica in Sicilia (1849-1855), S. Sciascia page XI, then using a historical converter of currencies <https://inflationhistory.com >where 4.25 lire in 1861 would be worth Euro 24.30 today.

24 Translation: Goldsmiths and silversmiths

25 Author's translation of The Protest of the Sicilians in 1850 Archivio di Stato di Palermo. Ministero e Real Segreteria di Stato presso il Luogotenente Generale in Sicilia- Finanza (F) B4272 fasc 7/196 Protesta dei Siciliani nel 1850 A.1

26 The Lieutenant General (previously called a Viceroy until 1815), governed Sicily for the Bourbons who remained in Naples.

Building a nation from ground up: A comprehensive insight

Radosław Milczarski

Abstract
Building a modern state from the ground up provides a unique perspective on the role of the economy within the contemporary state framework. The aim of this work is to show the process of establishing the economic foundations of the newly formed state and the specifics of the investment process in the years of subsequent economic crises in 1923-1924 and 1929-1935 when the new state of Poland faced capital deficiencies. The author wants to answer the question whether a state-owned bank such as Bank Gospodarstwa Krajowego (BGK, The National Economy Bank) can be considered a fully-fledged historical actor. The actor that is a collective entity whose decisions and attitudes impact the well-being of society as a whole. Note that the English translation of Bank Gospodarstwa Krajowego, BGK is - Polish Development Bank. 'National Economy Bank' was used historically in the pre-war era.

Keywords
Industry, infrastructure, modernity, development, geostrategy, railways, shipment, Poland, development banks, state, credit, loans, capital, investment, restructuring, statism, liberalism.

Building a modern state from the ground up provides a unique perspective on the role of the economy within the contemporary state framework. In this article we are going to investigate the case of Poland and the role its National Economy Bank, BGK, played in the process.

Before Poland regained independence in 1918, the country had been partitioned for 123 years by three major powers: Russia, Austria-Hungary, and Prussia. Each of these partitions imposed different political, legal, and economic systems on the Polish lands, resulting in significant disparities in development and infrastructure. The lack of a unified state left Poland economically fragmented, with different currencies, taxation systems, and levels of industrialization across the regions. Agriculture dominated the economy, and the land was largely underdeveloped in comparison to Western Europe.

The period leading up to independence in 1918, marked by World War I, saw much of the territory of future Poland ravaged by military campaigns, with significant destruction of infrastructure and displacement of populations.

Other countries that have gone through similarly difficult transformations can certainly relate. Countries such as Finland, Ireland, and the Baltic states faced the challenge of rebuilding their economies and integrating diverse regions after gaining independence in the first decades of the XX century. Finland, emerging from centuries of Swedish and Russian rule (1917), had to unify its fragmented economy, while Ireland, after gaining independence from Britain (1922), dealt with the legacy of colonial rule and economic disparity. The Baltic states—Latvia, Lithuania, and Estonia (1918)—had to build national economies from the remnants of Russian influence. Each of these nations followed unique paths to reconstruction, reflecting their diverse historical contexts.

Over the two decades of the inter-war period, we could observe the process of building the economy, whose investment effort serves the Republic of Poland 100 years later. The borders of pre–war Poland were drawn based on wars, uprisings and plebiscites created a completely new economic space. A space that required new routes, new industries, new markets and new international credibility. All this could only happen thanks to unprecedented investments and the commitment of state resources—a kind of "leap into modernity".[1]

The aim of this work is to show the process of establishing the economic foundations of the newly formed state and the specifics of the investment process in the years of subsequent economic crises in 1923-1924 and 1929 -1935, when the new state of Poland faced capital deficiencies. The author wants to answer the question of whether a state-owned bank such as Bank Gospodarstwa Krajowego (BGK, The National Economy Bank) can be considered a fully-fledged historical actor. An actor that is a collective entity whose decisions and attitudes impact the well-being of society as a whole.

Image 1. Gdynia. New Baltic Harbour (1925) Original title: 'Gdynia. Nowy port nad Bałtykiem' Author: Norblin, Stefan (1892-1952)
Source: Digital Library of Marie Curie University in Lublin https://www.bc.umcs.pl/publication/680 PUBLIC DOMAIN

Independence

Before Poland regained independence in 1918, it had endured 123 years of partitions and foreign rule. The country had been erased from the map of Europe in 1795, divided among three powerful empires: Russia, Prussia (later Germany), and Austria. The partitions came in three stages—1772, 1793, and 1795—each further reducing Polish sovereignty until the nation ceased to exist as a political entity. During the 19th century, Poles launched numerous uprisings, such as the November Uprising of 1830 and the January Uprising of 1863, but these were ultimately crushed by the occupying powers. The dream of independence persisted through clandestine efforts to maintain Polish culture, language, and a national identity. Throughout World War I, opportunities emerged as the three empires that controlled Polish lands were weakened by the conflict. With the defeat of the Central Powers and the turmoil following the Russian Revolution, conditions finally allowed Poland to reassert itself, and on November 11, 1918, Poland proclaimed its independence, marking the return of a free Polish state.

Polish independence, dreamed of by generations of freedom fighters, had to confront democratic practice and economic reality. In 1918, Polish society was markedly different from that of 1795, when the Polish-Lithuanian State had disappeared from the map of Europe. During the absence of their own state, Poles experienced the Industrial Revolution, the rise of capitalism, and significant shifts in social structure, including professional, cultural, and class changes. The country faced the challenges of unifying different legal, educational, and social systems. The aftermath of World War I severely impacted Poland's economy: industrial production fell by 86%, agricultural production by over 30%, and railways were destroyed by 90%. By 1919, more than 60% of the state budget was allocated to the military war with Russia. Inflation which reached 35,000% in 1923, further devastated the already fragile economy.[2] Recovering from wartime destruction was exceptionally difficult, especially as the retreating armies dismantled factories and destroyed infrastructure. It wasn't until 1937 that Poland`s GDP per capita finally surpassed the 1913 level.[3]

For Polish citizens, modernity equated to statehood itself. Since the Age of Enlightenment, the state was supposed to shape the welfare of its citizens, provide education, health care and social security. Poles, after years of oppression, were used to a lack of political representation and deliberate discrimination – now they could sense that citizenship was advancing to a new stage. Five-adjective elections and women's suffrage elevated civic awareness to unprecedented levels.[4] The new state, though not without flaws and abuses, slowly sought to embed genuine guarantees of civil and social rights into its philosophy. However, their implementation was mainly superficial. Minority rights were violated, power was abused. In 1920, Poland was ranked 23rd place out of 28 European countries regarding the level of sophistication of infrastructure necessary for socio-economic development, based on five components (transport, communication, housing supply, healthcare, educational and cultural services). In 1937, Poland climbed to the 21st rank.[5] The question arises as to whether the Polish modernization project of the 1920s can serve as inspiration for us today, and whether the challenges faced in establishing institutions at that time illustrate the difficulties of this path? As polish historian, Rafał Matyja wrote: "Independence is not a transition from the state of being a victim of history to an angelic being, but a way out of a certain moral and political weightlessness associated with the lack of tools to take care of one's own fate to a state of difficult responsibility for the ways in which we care about this fate".[6]

In 1923, an effort to overcome the economic crisis and political stalemate was undertaken with the appointment of Władysław Grabski, a proponent of the liberal school, as both prime minister and finance minister.

In 1923, an effort to overcome the economic crisis and political stalemate was undertaken with the appointment of Władysław Grabski, a proponent of the liberal school, as both prime minister and finance minister. The new Prime Minister, not associated with any party, set himself the goal of suppressing hyperinflation and stabilizing the economy. The road to this required swift and radical reforms, that would not, however, further impoverish an already struggling society. First, a new Polish currency was introduced – the zloty. Second, a modern issuing bank was also established in the form of Bank Polski SA. Funds for stabilizing the economy were to come from state spending savings and property taxes, which were supposed to only impact the wealthiest layers of society. Regardless, the burden fell on the poorest, who were affected by employers' actions, such as extending the workday to 10 hours to boost productivity. In response, the government attempted to intervene by introducing a 13-week unemployment benefit, implementing temporary relief measures and regulating prices.[7]

Image 2.1. BGK staff at the bank's first headquarters in 1925

Image 2.2. Map of BGK branches in 1927 from a paper by President Roman Górecki prepared for the Economic Committee of the Council of Ministers

Establishment of BGK

The economic policy of the era was characterized by the conflict between liberalism and statism, focusing primarily on how extensively the state and its measures should intervene in the economy. According to Prof. Urszula Zagóra-Jonszta: "Statism was not on the agenda of the ruling spheres (of Poland at the time). Therefore, after the end of the war with Russia and with the transition to a peacetime economy, under the influence of the widespread opinion on the needs to return to a liberal economy, a decision was made to sell part of state-owned enterprises and state shares in private enterprises (...). However, this trend did not last long. The decline in the share of the state sector in Poland`s assets between 1926 and 1929 was not only halted during the years of the Great Economic Crisis, but the trend was reversed, and by the end of the interwar period, the value of the state's share was increasing, especially as a result of the takeover of large industrial facilities that were in debt or acting to the detriment of the Polish state. In addition, for strategic reasons, almost the entire arms industry was state-owned".[8]

Władysław Grabski was known as a proponent of the liberal school of economics. However, due to the weakness of the domestic capital base and the insufficient resources of existing state-owned banks, he decided to establish a strong state-owned bank. This bank would serve as a financial platform for long-term and strategic investments.[9] This is how Bank Gospodarstwa Krajowego—The National Economy Bank—was established in 1924.

BGK's original activities included granting various loans: long-term loans in covered bonds (mortgages) and bonds (municipal, railway, and industrial banking), construction loans, and loans to local government savings institutions. Mortgage loans related to the issuance of covered bonds could be obtained by owners of land, urban, residential, and industrial properties. Loans in municipal bonds were granted to the state, local government associations, and public law institutions, secured by the assets of local governments. It was an instrument of state policy, but at the same time it was the main tool of the state's modernization project.

Since the end of the 1920s, BGK has become the largest bank of the Second Republic. Its capital was based on three banks from the merger of which it was formed, but which had been badly affected by rampant hyperinflation. This was not sufficient to fulfill the tasks set before it, so it was regularly raised. Already in 1927, the share capital was equivalent to that of the issuing bank, i.e. Bank Polski SA., and it was not much smaller than the combined capital of all 29 private banks.[10] It was primarily a long-term credit institution, occupying a leading position in this field in the country, providing 73 per cent of all such loans in 1929 and almost 90 per cent in 1938 (including loans financed from State Treasury deposits and special purpose funds). BGK's share in the short-term loan market was 7 per cent in 1929 and 10 per cent in 1938 (the dominant position was held by Bank Poliski SA).

BGK played a crucial role in the restructuring of numerous loss-making enterprises deemed strategic for the economy and national defense, which entailed significant financial losses.

However, it is worth emphasizing that BGK itself was a profitable organization. Despite its involvement in many difficult undertakings, it had earned the trust of the Polish people. It was a key player in the implementation of the government`s socio-economic programs, managed special purpose funds and provided financial services to the public sector. It financed and managed strategic enterprises crucial for national defense, participated in debt relief efforts for agriculture and local governments, and provided or co-provided funding for numerous state investments, including infrastructure initiatives and significant industrial projects of the Second Republic of Poland.

BGK was the institutional pioneer of modern Poland. Symbolically, this was reflected in its architecture, where the bank's buildings and townhouses built by the pension fund often lead the way in new styles. Economically, it drove modernity and modernization by guaranteeing financing and actively investing in funds.

The very creation of the state gave birth to a new economic reality. The traditional sales market for Polish products were Russia and Germany. The cut-off of Bolshevik Russia and the tariff war with Germany severely restricted foreign trade. The challenge for the new state was to reshape the markets so that the revitalized industry could find buyers for its products.

Textiles, chemicals and, above all, mining and oil extraction were Poland's only commercial advantages. The railway system, constructed during the partitions, had such significant differences in its network, that these variations are still visible on today's map of Poland. (Image 2.4)

Foreign Credit

BGK's first task was to obtain and guarantee the repayment of foreign loans. The widespread lack of investment capital in Poland forced Polish people to look for it in other countries. As a young country, in an unfavorable international environment and with internal problems, Poland had little creditworthiness. A state-owned bank, backed by the authority of the state, found it easier to raise sufficient funds compared to individual private banks.

In 1924, the Prime Minister assigned BGK the task of securing a foreign loan to stabilize finances, stimulate lending to small producers and develop the Agricultural Bank support to farms.[11] Dillon, Read & Co. Bank agreed to provide the loan, offering $26 million (equivalent to

Image 2.3. BGK building under construction 1929

Image 2.4. Headquaters of BGK in 1931. Warsaw

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$460 million today), under challenging terms (interest rate - 8% per annum, secured on income from the sugar excise and on railway revenues), though still more favorable than those available through government loans.[12] Despite the original expectation of $50 million, this amount was sufficient to boost economic activity in Poland, increase foreign exchange reserves, and increase construction credit. The task of negotiating with Dillon's banking house was given to the representative of BGK in New York. At that time, there was a belief that a representative of the banking sector could more effectively oversee the financial market and serve as an economic diplomat, doing so solely in consultation with the Polish consular service in the USA.[13]

The second loan intended to stabilize Polish finances and guarantee the inflow of foreign currency was a loan from the Ulen & Co. banking society, this time taken directly by Bank Gospodarstwa Krajowego. Almost $10 million ($170 million today) was channeled through the bank to the poorest municipalities. The American bank`s condition was for the bank, rather than local governments, to assume the debt, as recovery would be easier from a solid, government-backed banking institution.[14] Despite the harsh loan conditions, with a real interest rate of around 16%, BGK implemented restructuring programs to ease the repayment burden on overextended governments. For several years, repayments to Ulen & Co. were made from the bank's own resources. Funds from the loan financed urban infrastructure for ten medium-sized towns, and in the second tranche, starting in1926, for six more. Municipal sewage systems, municipal market halls and municipal slaughterhouses were built—key urban infrastructure urgently needed at the time. The bank also worked to place Polish municipal bonds on the US market, which were to be used, for example for the electrification of Polish municipalities.[15]

Despite the harsh loan conditions (...) BGK implemented restructuring programs to ease the repayment burden on overextended governments.

The American bank's claims were meticulously fulfilled by BGK even during the war, when the bank and its authorities lived in exile in London. Paradoxically, the loan was the reason why the later communist authorities did not decide to liquidate BGK, as they had planned. Thus, in spite of all historical adversities, BGK kept its commitments, confirming its reputation as a reliable partner.[16] BGK`s management of these receivables during the interwar period was also intended to serve as a showcase for foreign capital, highlighting the reliability and stability of the country's financial institutions, which were viewed as "seasonal" abroad.

Gdynia

The borders of the newly reborn Poland, shaped during four years of wars, uprisings, plebiscites and negotiations with the victorious powers, created a new geoeconomic landscape. Access to the sea was seen as crucial for development and was traditionally regarded as the key to Polish trade. However, by the decision of the victorious powers, Great Britain, France, and the USA, the city and port of Gdańsk at the estuary of the Vistula River were excluded from the Polish territory. Historically connected to the sea through trade along the Vistula River, Poland was left with only a narrow strip of coastline, which, apart from its beaches, included just one fishing village – Gdynia. (Image 4.1)

The history of the development of Gdynia as a city and port is one of the most spectacular examples of economic development in the Second Republic of Poland (1918-1939). It transformed from a fishing village with several hundred inhabitants to a modern city of about 130,000 inhabitants and the largest port on the Baltic Sea, in terms of commercial transshipment (since the mid-1930s). (Image 1) The building of the port city included the development of modern port infrastructure, shipyards and passenger facilities for transatlantic cruise lines. In 1931, transport exceeded 2 million 650 thousand tons registered at the entrance, the same number at the exit under the flags of: Sweden (25%), Poland (18%), Germany (13%), Denmark (9.5%), France (7%), and the USA (7%) – while imports reached 507,000 tons, and exports reached 4,573,000 tons, of which 4,274,000 tons were coal and oil.[17] After 10 years, it had already overtaken the Port of Gdańsk in terms of cargo handling capacity. By the outbreak of World War II, 80 per cent of exports and 65 per cent of all imports passed through the port of Gdynia. Calling pre-war Gdynia a "Polish window to the world" was therefore not an exaggeration.

BGK's presence in Gdynia began in 1925 with the first president of BGK, Dr. Jan Kanty Steczkowski visiting the coast. As the newspapers reported, the President 'ordered to organize and open a branch of a powerful institution, such as B.G.K., in the fishing village of Gdynia'.[18] When asked for whom and for what reason he was opening a branch of the bank in the middle of nowhere, he briefly replied: 'My clients will be fishermen of the Polish sea coast".[19] The first BGK initiative directly related to Gdynia started in 1925. BGK developed a concept for the development of Polish maritime shipping—a joint-stock company "Towarzystwo Żeglugi Morskiej"

3.1

4.1

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Image 3.1. Seven percent BGK Municipal bond for 1,000 French francs in gold, 1930

Image 4.1. Port of Gdynia 1931

with an initial capital of 10 million Polish Zloty (PLN). The company's first investments were the purchase of three to four cargo ships and four ocean-going passenger liners.

In 1926, the first long-term loan granted by BGK was for the construction of the city's shipyard. Subsequent loans were granted for the development of the city`s infrastructure, loans for the development of maritime foreign trade, and for "financing transactions of a pioneering nature or of particular economic importance". Over the following years, this was the core of BGK's policy of financing the construction of Gdynia. In 1927 BGK became a shareholder of the Polish Association of Sea Fishermen. In 1928, Gdynia received a loan for almost 4 million PLN in municipal bonds. It was one of many loans made to the city at the time. These loans served to further expand the city in connection with its development as a commercial port. One of the most critical issues for the new port and city was securing an efficient source of electricity for its largest port. The existing hydroelectric power plant in Gródek was insufficient for the construction of the city and the port. The electricity issues were resolved with an $850,000 loan "for the construction of a water and electric plant in Żura and for the extension of the electricity network to provide energy for the expanding city and port of Gdynia".[20] The construction of a modern hydroelectric power plant in Żura was completed at an express pace. Commissioned in 1929, it was the largest in the country. Material traces of BGK's involvement in the construction of the new Polish port are still visible today in the landscape of Gdynia.[21] (Image 4.2)

In 1926, the first long-term loan granted by BGK (in Gdynia) was for the construction of the city's shipyard.

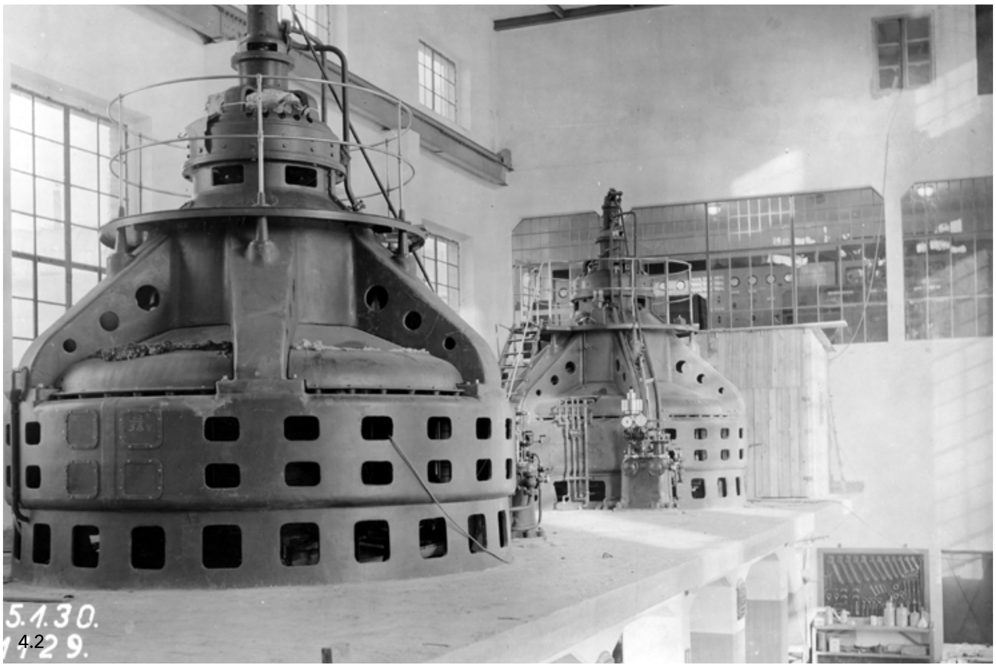
The first of these is the building of the BGK branch. It was established as early as 1927 and was the first bank in the city. When it opened, it had 10 employees, some of them being originally from the coast. In June 1928, construction of the new BGK premises started at 10 Lutego Street. The new branch was designed by Konstanty Jakimowicz, an architect working at the BGK head office. The modern building, together with a wing with apartments for employees was completed in August 1930. In 1932, 26 employees were employed at the Gdynia branch, and by 1937 there were already 56.

The second most iconic remnants of BGK in Gdynia is the modernistic tenement house for bank employees in the main street of the city–called by the locals "Banker". This most famous construction project completed before the war with funds from the BGK pension fund, is the largest residential building of pre-war Gdynia, designed by Stanisław Ziołowski. In 1935, construction of a monumental residential building began at the corner of 3 Maja and 10 Lutego Streets. Historians described the architecture as one of the flagship examples of Gdynia modernism of the interwar period, strongly inspired by the introduction of transatlantic liners. The building opened in 1938. It was equipped with a system of shelters, air filtration, and an underground car park. The "Banker" still dominates the panorama city's skyline.[22] (Image 4.3)

Main Coal Railway Line

The great logistical challenge was to link the Polish seaport on the coast with the rest of the country. The Polish railway network, inherited from Russia, Prussia, and Austria had been devastated during the war. 50 per cent of the railway bridges either lay in ruins or were unusable. More than 65 per cent of all railway stations were destroyed.[23] The remaining railway lines functioned inefficiently, and they collided with new national borders in numerous places, such as in the "Kluczbork corridor," where the track briefly entered Germany territory only to immediately exit back to Poland. The German side charged considerable fees for the use of this section.[24] There was also no reason to rely on road transport; only five per cent of roads were suitable for driving.

The existing railway line, which linked a brief stretch of the Polish coast with the interior, passed through the Free City of Danzig, where the authorities had a history of obstructing the passage of goods. Just as in 1920, during Poland's war, it blocked the transport of ammunition under the pretense of neutrality.[25] From 1924 onwards, relations with Germany began to deteriorate drastically. The customs war with the western neighbor, resulted in a ban on the export of Polish raw materials through the territory of Germany. This threatened to be disastrous, because Germany was the recipient of almost 60 per cent of Polish coal.[26] This strategic threat was to be solved by a railway line connecting Gdynia directly with Silesia, in this way enabling the export of Polish raw materials. For this purpose, Bank Gospodarstwa Krajowego became a shareholder of the joint-stock company Francusko-Polskie Towarzystwo Kolejowe S.A. (Compagnie Franco-Polonaise de Chemins de Fer), responsible for the construction of the Railway Main Coal Line. It was completed in March 1933. The French shareholders were Banque des Pays du Nord and the metallurgical and armaments concern Schneider et Creusot, which had been part of the French Polish Consortium for the



4.2

4.3

Image 4.2. Hydroelectric power plant in Zur near Gdynia

Image 4.3. The "Banker"

construction of the port in Gdynia since 1924. In addition to participation in the consortium, the company was also a shareholder of several mines and steelworks in Upper Silesia. It was therefore keenly interested in opening the sea route for Polish coal and reducing dependence on Germany.[27] (Image 5.1)

On the first of March 1933, the Silesia-Baltic railway line was inaugurated at the Kasznica station, which connected the industrial region of Poland with its Baltic harbour at Gdynia. It was 522 km long, making it the shortest section connecting Katowice (the capital of Upper Silesia) with Gdynia. What was uncommon in Poland at that time was a technologically consistent railway line. Its significance was noticed by the foreign press, for instance, the Berliner Tageblatt that highlighted its importance on May 5, 1931, while it was still under construction, as follows: "The construction of the Katowice-Gdynia line is changing the face of Europe from an economic and political point of view".

Coal mines were the main customers of the Silesia-Baltic line. In normal times, the line transported more than five million tons of coal per year for domestic use and around ten million for export, sometimes reaching as far as South America. This accounted for sixty per cent of all transport on the line.[28] In the opposite direction (especially from Sweden), over two million tons of ore were imported and used for transit purposes. In addition to transporting raw materials, the line moved more than one million tons of agricultural and timber industry products and almost as much general domestic traffic.[29] This calculation shows the character not only of Silesian-Baltic transport, but also of the new Polish economy. From then on, the direct line brought Polish coal to the Baltic Sea, and wagons filled with minerals from across the sea went from Gdynia to Silesian and Czechoslovak factories. Gdynia`s hinterland, however, extended even further. The Silesian-Baltic line was connected to lines that ran through Lviv towards Ukraine and as far as the Romanian port city of Constanţa. There were also plans, through Balkan connections, for a trans-European north-south line from Gdynia to Thessaloniki in Greece.[30]

Besides altering geostrategic conditions, the main line positively affected internal rail traffic. It increased the density of the railway network, allowing for more efficient use of rolling stock and transport organization. It eased the load on railway lines, which could then be used for passenger transport. Additionally, it offered development opportunities for countries along the north-south route, serving as the shortest route to the Baltic Sea for goods from Czechoslovakia, Hungary, Romania and Yugoslavia, even though transit traffic never exceeded eight 8 per cent of the total.[31]

BGK's Conglomerate

In 1926, the government officially tasked BGK with financing and restructuring the national arms industry. These measures supported the formation of the so-called BGK Conglomerate, which included enterprises crucial for the national economy and defense.

In 1929, the enterprises belonging to the BGK Conglomerate were divided into two groups. The first included enterprises crucial for the defense of the country, while the second one was vital for the national economy. The division was formal, regardless of the products of a particular company ending up in both groups. In 1930, a Conglomerate Department was established at BGK`s headquarters, which was renamed the Industrial Enterprises Department in December 1934, due to the reorganization of the headquarters structure.

In 1926, the government officially tasked BGK with financing and restructuring the national arms industry. These measures supported the formation of the so-called BGK Conglomerate.

Over time, more and more industrial enterprises joined the BGK Conglomerate. The bank, as a state-owned financial institution dedicated to rebuilding the national economy, had previously financed these enterprises to prevent their collapse. BGK relinquished its shareholdings in some enterprises once the corrective programs it had implemented took effect. In other cases, after declaring bankruptcy, these enterprises either became property of the State Treasury or, in one case, ceased to exist. (Image 6.1)

In June 1931, the Economic Committee of Ministers adopted a resolution on limiting state shareholding in enterprises with a mixed ownership structure. The resolution was accompanied by a list of 19 enterprises in which BGK should liquidate its shares. However, the implementation of the resolution was delayed for various reasons. In 1931, only five enterprises were included amongst the most important enterprises: the Starachowice Mining Work Association, the Association of Polish Mechanics from America, the Potassium Salts Exploitation Society, the "Boruta" Chemical Industry and the "Grodzisk" Chemical Works.[32]

Image 5.1. Employees of BGK branch in Gdynia, 1934

Image 6.1. Opening of BGK Housing Exhibition in Warsaw Koło district, 1935

6.2

In the year before the outbreak of World War II, BGK ended its year as the most powerful bank of the Second Polish Republic. Of all long-term loans in 1938, 73% came from BGK. Thanks to construction loans granted by BGK since 1924, more than 147,000 flats with almost 400,000 rooms and approximately 9,000 flats with over 16,000 rooms were built throughout the country. The turnover of companies belonging to the BGK group in 1938 reached a total of PLN 131 million. They employed over 14,000 employees, representing 1.5 per cent of the total workforce.[33] (Image 6.2)

Conclusion

The new Polish state, confronted with post-war destruction, regional disparities, and an impoverished population, had to rely on foreign capital and state investments for its key industries. The state authorities had no alternative policy, private capital was either scarce or reluctant to engage in long-term investments. Some industries were also in state hands for strategic reasons related to state security. State intervention was also driven by the aim of reducing social tensions by preserving socially valuable enterprises or those that were significant employers in the region.[34] At that time, planned economies and extensive state intervention were dominant trends in developing economies. The recovery required more investment than private capital could provide, a situation that persisted until the late 1970s.[35] Bank Gospodarstwa Krajowego played a crucial role as a key investor, implementing government policies while maintaining a reputation that outlasted frequently changing governments. Its enduring mission across various socio-economic systems makes it a cornerstone in the story of Poland's modernization and the significant progress made from 1918 to the present.

Image 1: public domain
All other images: © BGK

Image 6.2 New Bytom - Ironworks 1929

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A review of archival and research sources on the development of hydroelectric energy production in Greece

Chrysalena Antonopoulou & Maria Voltera

Abstract
From industrial and agricultural production, transport, and communications to city lighting and urban life, the adoption of electric power has played a pivotal role for the development of the Greek economy after WWII. How did societies and national economies adopt and support the transformations brought about by this new energy source? What steps were taken to usher in this new era, and what decisions and initiatives were necessary in terms of research, funding, and organization to support this scientific and technical innovation? What factors have shaped the methods of electricity production and distribution, and how have these evolved over time?

In this paper, we will focus on the archival unit within the Historical Archive of the National Bank of Greece (HA/NBG) entitled "White Anthrax," a term used to refer to water and waterfalls as a source of electricity during the 20th century. Presenting a wide range of archival documents from our collection, we will delve into the history of the development of hydraulic and hydroelectric power production in Greece. We will explore the prominent role financial institutions, especially the National Bank of Greece, played in the process of attracting funds and supporting the conduct of scientific research, as well as the establishment and operation of production units. Furthermore, links to other archival units from the HA/NBG will be created to form a source network on the subject to reveal the richness of archival resources and how they can be relevant to a variety of historical topics. Our presentation of the archive will follow Nikos Pantelakis' (1991) *Ο εξηλεκτρισμός της Ελλάδας. Από την ιδιωτική πρωτοβουλία στο κρατικό μονοπώλιο (1889-1956)* [The Electrification of Greece. From Private Initiative to State Monopoly (1889-1956)] historical analysis of electrification in Greece.

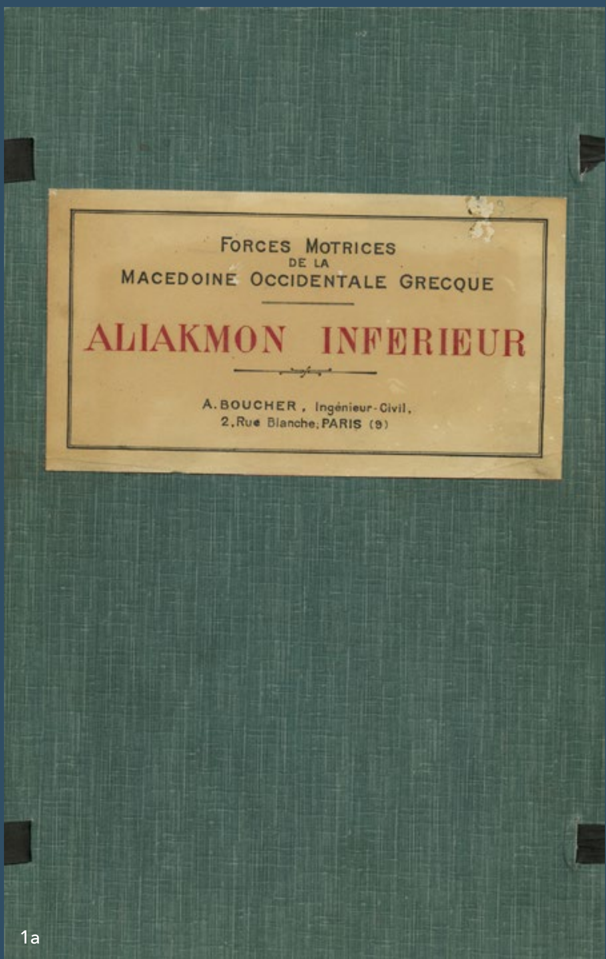
Keywords
National Bank of Greece (NBG), electric energy, hydropower, hydroelectricity, syndicate of banks, energy sources, twentieth century.

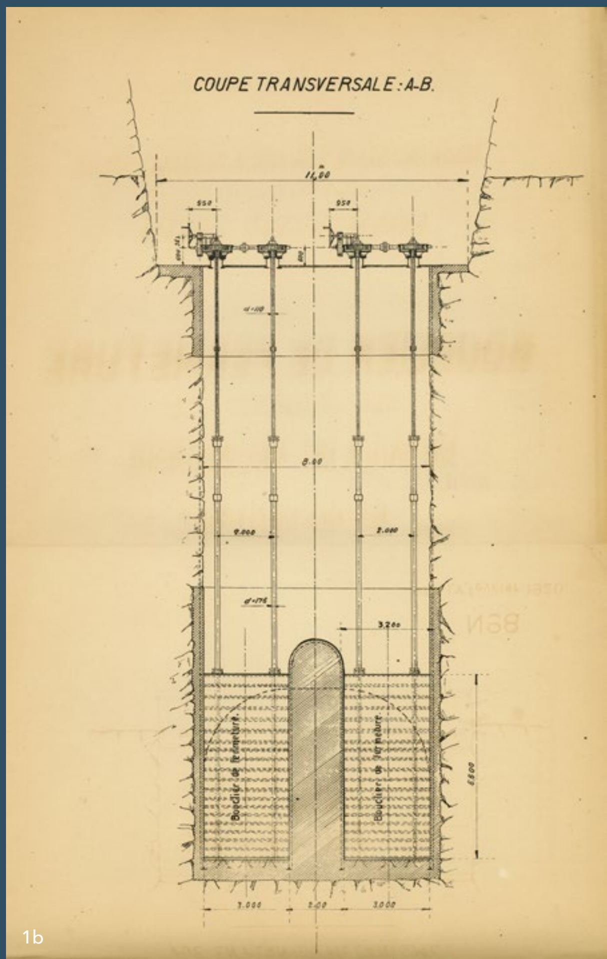
1. First steps towards electrification and the use of hydroelectric power in Greece (1899-1948)

The first power plant was established in Greece in 1889, in Athens, by the General Contracting Company. In 1895, the French Mining Company of Lavrion also built a power plant that provided the city of Lavrion with electric lighting. Gradually, small-scale units near the largest urban centers, like Athens and Piraeus, began to operate, mainly owned by gas companies.[1] The involvement of the Thomson-Houston Electric Company of the Mediterranean in the Greek electricity market and the establishment of the Hellenic Electric Company in 1899[2] would change the landscape. In the next two decades most of the important urban, production, and commercial centers of the country were provided with electric power. Until then, all new local power plants ran on thermal energy. The investment in hydroelectric plants was hindered by the significant distances between waterfalls and urban or industrial centers, coupled with the high costs of constructing the plants and transporting energy to the areas of consumption.[3]

During the Balkan Wars (1912-1913), and even more so during World War I, the consequences of the exclusive usage of thermal energy became apparent. The lack of imported raw fuel and the sharp rise in the price of coal created the need for state restrictions and interventions in the electricity market, provoking significant difficulties for the production units. It was then that attention began to focus on the national power generation capacity and on resources such as waterfalls and lignite. The National Bank of Greece (NBG), already actively involved in the electricity market with its participation in the capital of GEC, begun to show increased interest in exploiting the waterfalls. In 1918, the first national law on the harnessing of hydropower was enacted.[4]

Two years later, in May 1920, at the initiative of the NBG, under the leadership of its co-governor, Alexandros Diomides, the Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece was founded.[5] All of the country's major banks participated.[6] The Syndicate aimed at supporting the necessary scientific, technical, and economic studies on the





Images 1a. & 1b. Cover and cross section from A. Boucher. *Forces Motrices de la Macédoine Occidentale Grecque. Aliakmon Inferieure*. (Driving forces of Greek Western Macedonia. Lower Aliakmon). Prilly. Feb. 1920.

usage of hydropower in Western Macedonia and Central Greece, creating power transmission and distribution channels throughout the country, attracting investment capital, and, potentially, undertaking the construction of hydroelectric power plants. The National Bank of Greece took over the negotiations with the Greek state and, in January 1921, the Board commissioned the Swiss engineer A. Boucher to study the hydropower capacity of the Acheloos River. In the following years, the studies focused on a variety of rivers, lakes, and waterfalls in the area; statistical and techno-economic analyses were made on the country’s industrial outlook, consumption, and distribution, but also on the international legal framework of hydroelectricity.[7]

In 1922, the Municipality of Patras and the National Bank of Greece founded “Glafkos,” a hydroelectric company for the exploitation of the Glafkos River in the Peloponnese. In the same year, another hydroelectric company was founded by the Municipality of Chania in Crete. However, historical and political events, such as the consequences of the Asia Minor campaign and the defeat of the Greek Army (1922), which led to the arrival and settlement of large refugee populations in Greece, played an inhibiting role regarding the development of the hydroelectricity network. The Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece ceased operation in 1930. NBG received permission from the Board to retain the right to use the studies to negotiate with the British Power and Traction Finance Company on the exploitation of the waterfalls of the Krathis, Vouraikos, and Selinountas rivers in the Peloponnese.[8]

In May 1920 the Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece was founded.

During the turbulent years between the two World Wars, and due to the severe impact of the Asia Minor Disaster on the Greek economy, the development of the electricity production network relied on foreign investment funds. In this period, a rapid growth in the construction of small-scale local power plants across the country was observed. Despite the recognition of the importance and benefits of utilizing domestic power-generating resources by 1932, only 4% of the electricity consumed in Greece was generated by hydroelectric plants.[9] The significant upfront costs required for the construction of such units, along with the infrastructure needed to transport the power to the consumption centers, required the investments to be long-term commitments. Foreign investors, such as the Power and Traction Finance Company, appeared to be more interested in thermal energy plants near major urban centers; therefore, the economy remained heavily dependent on imported raw fuel materials. Nevertheless, significant initiatives were undertaken, and the initial steps toward developing hydroelectricity production were made during the interwar years.

The outbreak of World War II significantly aggravated all the difficulties related to energy production. The Greek economy faced energy shortages and energy generation and consumption were unevenly distributed between urban centers and the rest of the country. The import of crude fuel to operate industrial units led to a loss of foreign exchange, while the potential of the untapped hydropower resources remained unaddressed.

During the war, in 1942, the National Bank of Greece set up the Committee for the Study of the Energy Sources of Greece and appointed engineer Theodoros Raftopoulos to lead the research on how to harness domestic energy sources, particularly hydropower and lignite. This initiative was part of NBG’s preparation of a general plan for rebuilding the national economy after the war. During the same period, alongside Raftopoulos’ committee, other scientists conducted similar studies. They proposed various strategies for the mid-term development of electricity production in Greece, all emphasizing the need for further hydropower exploitation.[10]

After the war ended, the United Nations Relief and Rehabilitation Administration (UNRRA) prepared a specific analysis on the matter of power production in Greece in May 1947. A year later, the Greek Committee for European Cooperation proposed a four-year reconstruction plan for Greece, based on the results of the UNRRA report, and within the framework of the Marshall Plan. According to the recommendations of the UNRRA report, the exploitation of hydropower and lignite would offer low-cost energy to the production units, a condition recognized as fundamental for the future industrialization of the country. In 1948, the Greek Supreme Council for Reconstruction and the Greek government commissioned the American company EBASCO Services Inc. to study and report on the optimal strategy and plan for the country’s energy production, transmission, and distribution.

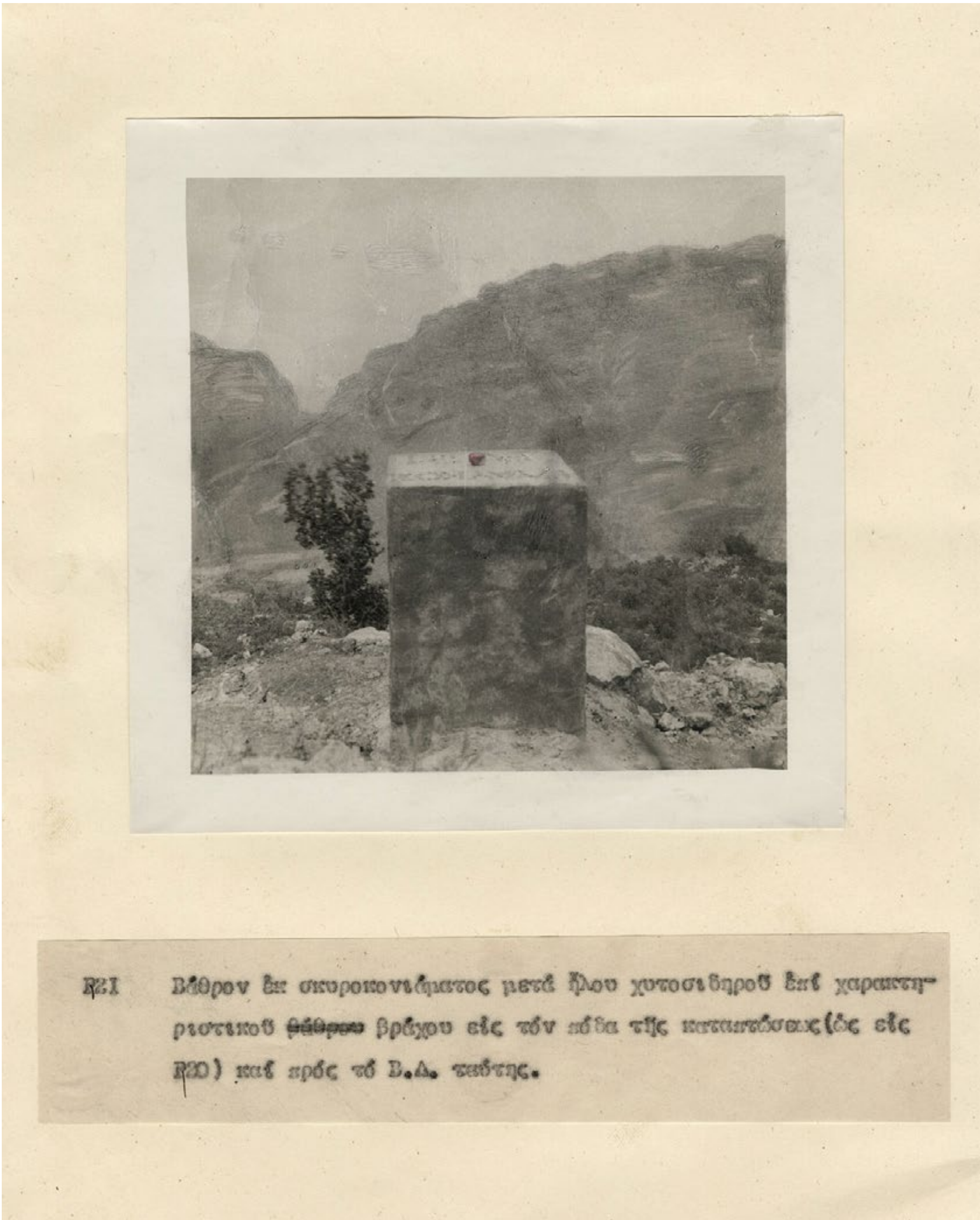


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Image 2. Photograph from the report on the spatial measurement of Vouraikos River for the hydroelectric projects of the Hellenic Anonyme Hydroelectric Company Glafkos. Concrete pedestal on cliff northwest from the waterfall.

2. Archival Sources on the Development of Hydroelectricity in Greece from the Historical Archive of the National Bank of Greece (HA/NBG)

2.1. *The "White Anthrax" Archive*

Within the Historical Archives of the National Bank of Greece (HA/NBG), under the archival unit related to the activities of its Technical Services Department, there is a subseries titled "White Anthrax."[11] Beneath this broad, almost poetic title lies a collection of documents covering all stages of the bank's involvement in initiatives and research related to the development of hydroelectricity power in Greece. The archive consists of 172 document files and 22 books and covers the period from 1906 to 1947. Going through the subseries' descriptive entry in the electronic catalog of the HA/NBG, we are informed that "the subseries was originally created by the Committee for the Study of Energy Sources of Greece established in 1942." We learn about its origins that "the Committee received the files, books, and plans of the Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece, which had been established in 1920 by a group of Greek banks. After the abolition of the Committee, the study and gathering of data for the major reconstruction projects of the country were assigned to the Engineering Service of the Technical Services". In the same entry, the content of the archival unit is described as "studies for the construction of hydroelectric facilities, electrification of transport, drainage works and construction projects."

The archive consists of 172 document files and 22 books and covers the period from 1906 to 1947.

The review of the inventory with the file titles reveals three distinct thematic and chronological sections, which represent major chapters of NBG's efforts to research and promote the use of hydropower. The first unit is related to the establishment and operation of the Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece. It consists of records from the first quarter of the 20th century. It includes the studies conducted by Boucher and other studies on the hydroelectric capacity of rivers in the central and northern parts of Greece, as well as documents related to the general research on the issue of hydroelectricity, such as reports on the Italian legislative framework of the time. (Images 1a - 1b)

The second unit relates to the participation of the National Bank of Greece in the establishment of the Hellenic Anonyme Hydroelectric Company Glafkos in 1922 and the related research for the construction of the hydroelectric facility on the river Glafkos in the region of Patras, in the Peloponnese. The records of these files date from 1926 to 1948. They include a copy of the contract with the Municipality of Patras for the project related to the Glafkos company; technical, geological, and economic studies; correspondence and administrative documents on the supply of mechanical and other equipment; the operation of the plant; the targeted market and the company's cooperation with government services. (Image 2)

Two archival files, containing correspondence and reports, are of significant interest as they detail the company's operations during the German occupation, the challenges it encountered in the early post- war years, and the subsequent reconstruction period.

The third section provides detailed information on the work of the Committee for the Study of the Energy Sources of Greece, founded by the National Bank of Greece in 1942. The content of these files offers a detailed record of the committee's research on the exploitation of domestic energy sources, particularly hydroelectric power. They include manuscripts and official reports covering a wide range of topics related to energy sources, power production, transmission, distribution, and consumption. The archive includes articles written by scientists and experts working for the committee; publications in the national press; reports on the development of hydropower generation internationally; records and data on the industrialization of Greece; and studies on the potential uses of electric power for urban infrastructure and transport. Most of these documents were produced during the war. Others are related to the reconstruction period: among the latter, we find the minutes of the meeting held at the offices of the NBG between representatives of the Bank and the United Nations Relief and Rehabilitation Administration (UNRRA), on May 18, 1946, as well as a copy of the final UNRRA report on the exploitation of the Greek energy sources from 1947 and a copy of the EBASCO report from 1949.

The establishment of the "White Anthrax" archival unit highlights the National Bank of Greece's prominent role over nearly thirty years in spearheading national organizational and research initiatives. Due to the Bank's active role in exploring and supporting the development of Greece's electricity generation potential, a comprehensive collection of specialized, technical, and financial studies was initially created and ultimately consolidated into an archive. These studies represent a valuable and

Images 3a & 3b. Items from the "White Anthrax" collection of plans and maps.

unique repository of historical information. They encompass a wide range of technical reports on hydropower, covering not only the distribution and use of electricity in industrial and urban centers, but also hydraulic studies related to irrigation and drainage for agriculture. Additionally, the archive includes comprehensive economic and financial studies concerning the funding of hydroelectric plant construction and operation, as well as the development of transmission and distribution networks. It also features data analysis and forecasts on Greece's industrial sector growth and electric power demand.

The archive captures numerous stages of the committees' work process and includes a range of research materials. These encompass third-party studies about Greece, as well as international reports on hydropower development, collected for various purposes. This extensive collection provides a thorough overview of the subject, reflecting the technological and research advancements of the time.

2.2. *The "White Anthrax" collection of plans and maps*

As part of the NBG's archival collection of architectural plans, the subseries of plans, maps, and technical drawings of the "White Anthrax" archive[12] forms a set of archival records of unique value. With a total of 586 items, arranged in 48 archival files, this collection functions as a complement to the archive and should be examined alongside the studies conducted at all the various stages. Similar to the observations on the documents, this archive also contains records that were either collected by the working groups of various committees or produced by them for their research purposes. (Images 3a – 3b)

To categorize the items in this archival collection, two criteria could be used: Firstly, the specific study or phase of the process to which they refer or belong to; secondly, the type of record (drawing, map, topographic plan etc.).

Regarding the first criterion, based on the analysis of the archival documents, the collection includes records from the operational period of the Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece (1920-1930) and records created by the Hellenic Anonyme Hydroelectric Company Glafkos. Additionally, it contains materials related to the Committee for the Study of the Energy Sources of Greece (1942-1947).

Regarding the second criterion, the collection of nearly six hundred items includes a diverse array of technical drawings and plans. As previously mentioned, some of these records were collected specifically for the studies, while others were produced by government agencies, such as the Ministry of Transport.

The first file of the subseries contains 23 different kinds of maps and cartographic resources of Greece, containing geological and topographic information, maps of forests, and other thematic maps.

Topographic maps are a prevalent type of record within the collection, in particular from the regional unit of Achaia, in the Peloponnese. They cover extensive regions of the national territory, as well as specific features such as lakes, rivers, streams, riverbeds, and smaller areas of particular interest. Additionally, the collection includes bathymetric maps that provide detailed information on the shape, elevation, and depth of lakes and rivers. (Images 4a - 4b)

The collection of nearly six hundred items includes a diverse array of technical drawings and plans.

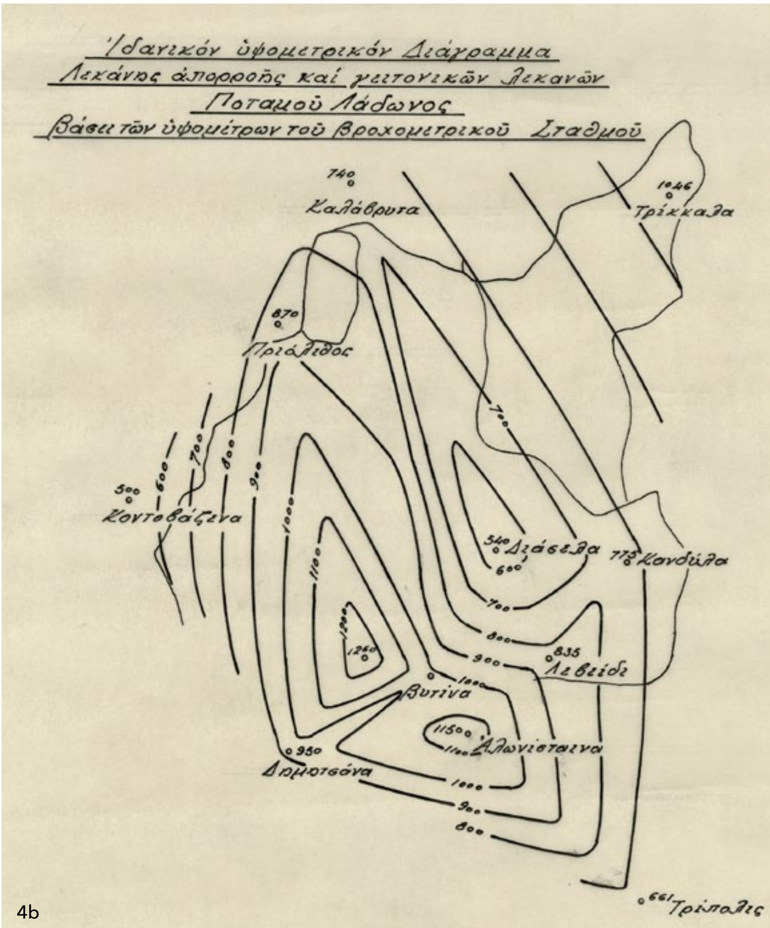
Other kinds of maps and plans show transportation—rail and road—networks, as well as the existing electricity transmission and distribution network at each period. Another category of records in this section consists of technical and engineering designs, along with blueprints of dams and other retention structures associated with the construction of hydroelectric units.

Another category of documents in the collection consists of data tables, diagrams, and charts. These include documentation of measurements and data from hydrological and related studies, as well as tables with data on the consumption of electricity in urban centers, the amount of power produced by power plants throughout the country, and comparative tables of energy consumption in different regions.

A series of charts and tables predicting electricity demand through to the year 1965 is of particular interest. It is worth noting that the items being examined vary in their medium, format and size.

2.3. *Other archival sources related to hydroelectric power from the Historical Archive of the National Bank of Greece.*

For researchers interested in the research and development of hydropower in Greece, the "White Anthrax" archive is not the only source of information. Several archival units contain a diverse array of documents and records that address various aspects of the process over time, extending beyond just technical studies. Examining these records is crucial for understanding the broader context of each stage in hydropower development, as



Images 4a & 4b. Map of Greece indicating "expandable hydropower" and elevation chart diagram of the Ladonas River's watersheds and basins based on the altitudes of the rain gauge station.

These records unveil intentions and concerns, explain the rationale behind decisions, and help build a comprehensive understanding of the conditions in which the developments took place.

they unveil intentions and concerns, explain the rationale behind decisions, and help build a comprehensive understanding of the conditions in which these developments took place.

A typical example that meets these characteristics is a file of documents from the archival series "Public Works",[13] which consist of material containing information on the construction of major public works in Greece. The file is entitled "Hellenic Syndicate of Hydroelectric Studies"[14] and belongs to the subseries "Lighting Projects."[15] It contains different kinds of documents: legal contracts, as well as accounting, and financial data, for the period 1920 to 1930. Among them are the minutes from the meetings of the syndicate. But that is not the only folder within the subseries that is related to the Hellenic Syndicate of Hydroelectric Studies and Facilities. Correspondence between the members of the syndicate, the president of its council and its executive committee, technicians, payment receipts, and account statements can also be found in different folders within the archive.

Another source of relevant archival material from the Archives of the National Bank of Greece is the "Industrial Credit" series.[16] The subseries named "Business and Funding Research Service. Production and Distribution of Motive Power, Lighting, Air, Heating"[17] contains archival folders and documentation related to the Hellenic Electric Company and Glafkos. The HEC file contents, dating from 1899 to 1958, include the company's statutes, board of management's annual reports, correspondence, studies on the company's operations, articles published in the press, and issues from the *Government's Gazette*. Similar documents can be found in the folder of the "Hellenic Anonyme Hydroelectric Company Glafkos". This folder additionally contains balance sheets and bank reports on the company's operations. Documents and research sources about the company can also be discovered in several other archival series from the NBG archives, such as "Loans,"[18] "Correspondence,"[19] "Companies,"[20] and "Judicial Archives."[21]

Another subseries from the "Industrial Credit" archival collection worth mentioning is the "Business and Funding Research Service. General Studies Archive," which also contains material pertinent to the history of hydropower development.[22] In it, we can find folders containing documents related to a variety of different hydroelectric and hydraulic projects, including the corresponding technical proposals and third-party studies, banks' reports, and assessments on the funding of electricity companies. A notable archival file within the subseries is the one containing detailed minutes from the sixteen meetings of the Committee for the Study of the Energy Sources of Greece in 1942. Titled "Committee for the Study of the Energy Sources of Greece"[23] this file includes documentation on the committee's establishment, notes by Theodoros Raftopoulos and other members and experts who worked for the committee's purposes, reports like the "Conclusions from Energy Generation Policies," and relevant correspondence.

While a comprehensive listing of every archival folder or unit related to electricity and hydroelectric power generation within the NBG archives exceeds the scope of this article, it is important to highlight a few key archival units. These include the "Archives of Governors, Directors, and Executives of the National Bank of Greece"[24] and "Annual Reports and Balance Sheets"[25] series.

3. Short overview of the development stages in hydroelectric power exploitation to the present day

Numerous studies carried out between 1921 and 1948 proposed alternative solutions for a national network of hydroelectric power generation, transmission, and distribution in Greece. The main differences concerned the connection of consumption centers to large power plants and the transmission of electricity over long distances versus the construction of smaller units designed to meet local industrial and urban demand. Each study, including those by UNRRA and EBASCO, presented a development plan with

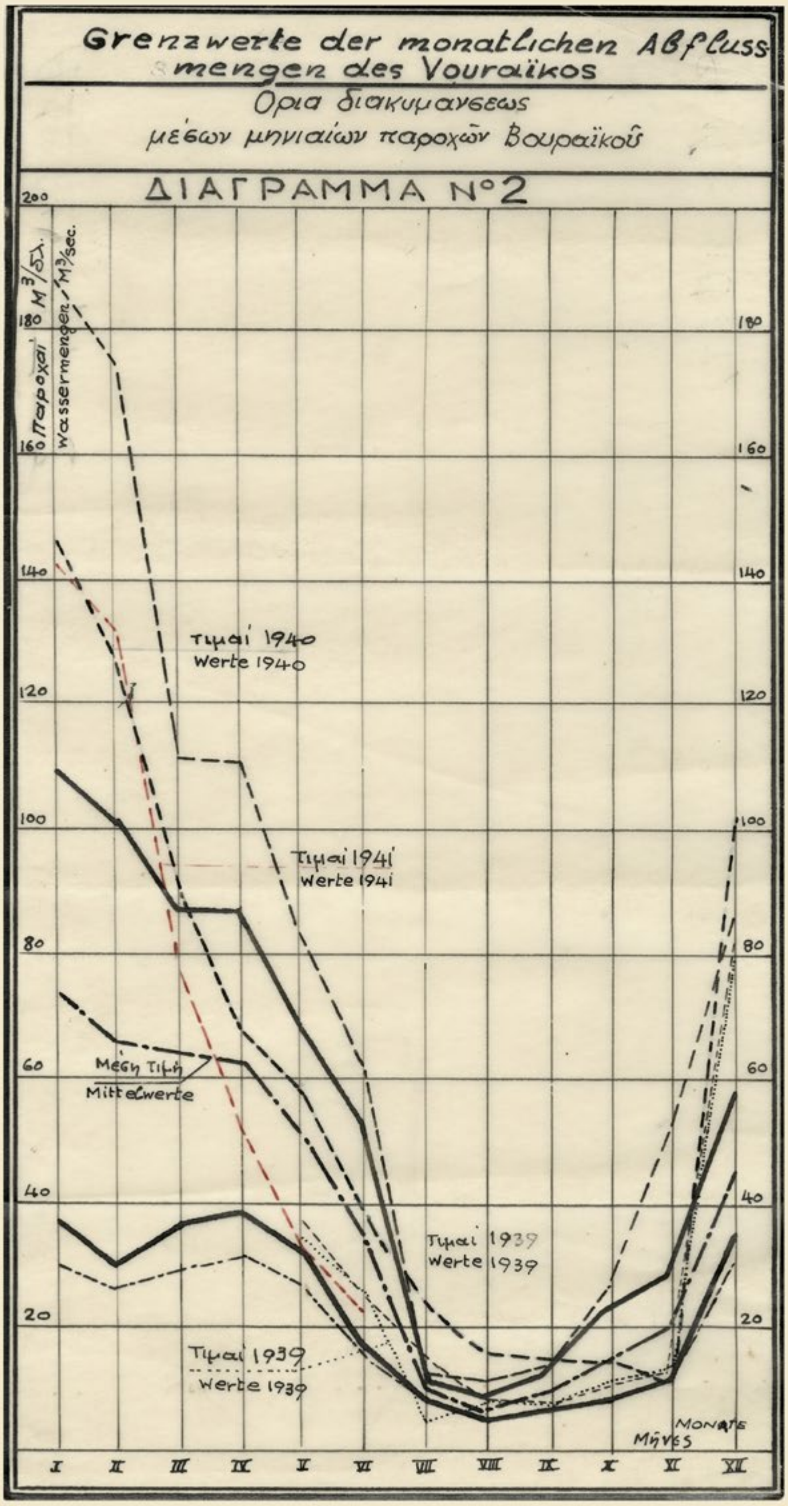


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Image 5. Variation limits of average monthly water supply (1939-1940), diagram.

different implementation phases, focusing on different rivers and waterfalls, and suggesting an optimal mix of hydro- and thermal power generation to meet required energy production levels.[26]

The final solution was based on the report presented by EBASCO, according to which electric power production should be achieved through an integrated generation system that would be based on domestic resources (waterfalls and lignite) and supported by a nationwide transmission and distribution network.[27] The scale, requirements, and characteristics of the program compiled by the Supreme Council for Reconstruction needed a central administrative organization, so in August 1950, the Public Power Corporation (PPC) was founded "with the aim to bring electricity to the farthermost reaches of the country."[28]

During the next five years, the hydroelectric power plant at the River Louros was completed, and the Agra and Ladonas Hydroelectric Plants began operating. In 1956, PPC was granted the exclusive privilege for the generation, transmission, and distribution of electricity nationwide; ten years later, the Kremasta Hydroelectric Plant at the River Acheloos, one of Europe's biggest projects, became operational[29] too. Until 1975, seven large and one small hydroelectric production plants were completed in Greece, with a total installed capacity of 1411,4 MW.[30] Today, sixteen large and nineteen small hydroelectric power plants are in operation, many of them being part of the four complexes of the rivers Acheloos, Aliakmonas, Arachthos, and Nestos.[31] The average annual hydroelectric generation from hydroelectric power plants, depending on the hydraulicity of the year, covers 8%-10% of the total energy generation of PPC SA.[32]

4. Conclusion

The "White Anthrax" archive differs significantly from the usual archives to be found in the historical archives of a financial institution. It primarily contains scientific and technical studies, specialized plans, charts, and other documents related to the early stages of national research on electricity production, domestic energy source utilization and energy sufficiency.

Its documents cover about thirty years. Thus, their study uncovers an important part of the history of Greece's electrification. In addition, the records that belong to the "White Anthrax" archive, reveal the commitment of the National Bank of Greece—the country's largest financial institution of the time—to promote, organize, and support the conduct of research into hydropower and consequently national economic development.

NBG's ongoing efforts to unite all essential stakeholders from the private and public sectors to advance a series of major projects with significant public benefits occurred during a period of historical and political turbulence. The results of these efforts formed the basis for the reconstruction program for Greece's power production.

The Bank's involvement in the exploitation of hydroelectric power was not limited to the founding of the syndicate and committees that undertook the work of studying the power generation capacity of Greece's rivers and waterfalls. Its governors and executives were strongly engaged in efforts to negotiate with foreign investors and attract capital for the implementation of a nationwide electricity network. The bank contributed with its own capital to the foundation of electric companies and issued loans for the construction of hydroelectric and thermal plants across the country. Within the historical archives of NBG, a comprehensive collection of records details the bank's operations related to the financing of these projects.

One of the most widely used forms of renewable energy today, hydroelectric energy, is a clean, flexible, reliable, and cost-effective form of power. Hydroelectric power plants offer several significant benefits beyond energy generation, including power reserves, irrigations, water supply, and more.

Although the global debate on energy production and sufficiency is still highly relevant, the history of hydropower exploitation in Greece and NBG's involvement, as documented in the archive under study, provides a foundation for reflecting on the historical and future roles of banking and financial institutions in both national and as global economies.

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1 Pantelakis 1991, 167.

2 The National Bank of Greece, together with the Greek Contracting Company and Thomson-Houston Electric Company of the Mediterranean, participated in the capital of GEC.

3 Pantelakis 1991, 174.

4 Law 1379/21.4.1918.

5 Historical Archive of National Bank of Greece 2008, 97.

6 The Greek banks that participated in the establishment of the Hellenic Syndicate of Hydroelectric Studies and Facilities of Western Macedonia and Central Greece were the National Bank of Greece, Bank of Athens, Industrial Bank, National Economy Bank, General Bank, Bank of Piraeus, and Bank of Chios.

7 Pantelakis 1991, 209.

8 Ibid., 211.

9 Gounarakis 1933: 193.

10 Pantelakis 1991, 375-379.

11 NBG Historical Archive, GR HA-NBG AFO1SE37SS0001.

12 NBG Historical Archive, GR HA-NBG B CO12 SE1 SS0001.

13 NBG Historical Archive, GR HA-NBG A FO1 SE25.

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24 NBG Historical Archive, GR HA-NBG A FO1 SE2.

25 NBG Historical Archive, GR HA-NBG A FO1 SE4.

26 Pantelakis 1991, 377.

27 *Ibid.,* 393.

28 PPC Group, "Historical Background".

29 Ibid.

30 PPC, "Hydroelectric Power Plant".

31 Ibid.

32 Ibid.

A focus on public interest. Unveiling the stories behind the numbers

Mariastella Circosta

Abstract
Starting with the unceasing relationship between philanthropy and credit, dating back to its origins in 1563, the year the Compagnia di San Paolo was founded, this paper retraces the public interest role played by the Istituto Bancario San Paolo di Torino through archival sources, highlighting how, over time, the Bank has successfully created a stable and reliable financial environment, becoming one of the pivots for the development and management of the economy in a territory. The bank has played a major role in gathering deposits and giving loans to support economic activities and promote social well-being, such as socially accessible residential housing, health services, and education, as part of the effort to offset social inequality.

Keywords
Public interest, housing, health, credit, philanthropy, Saint Paul, Turin.

The origins of the Istituto bancario San Palo di Torino

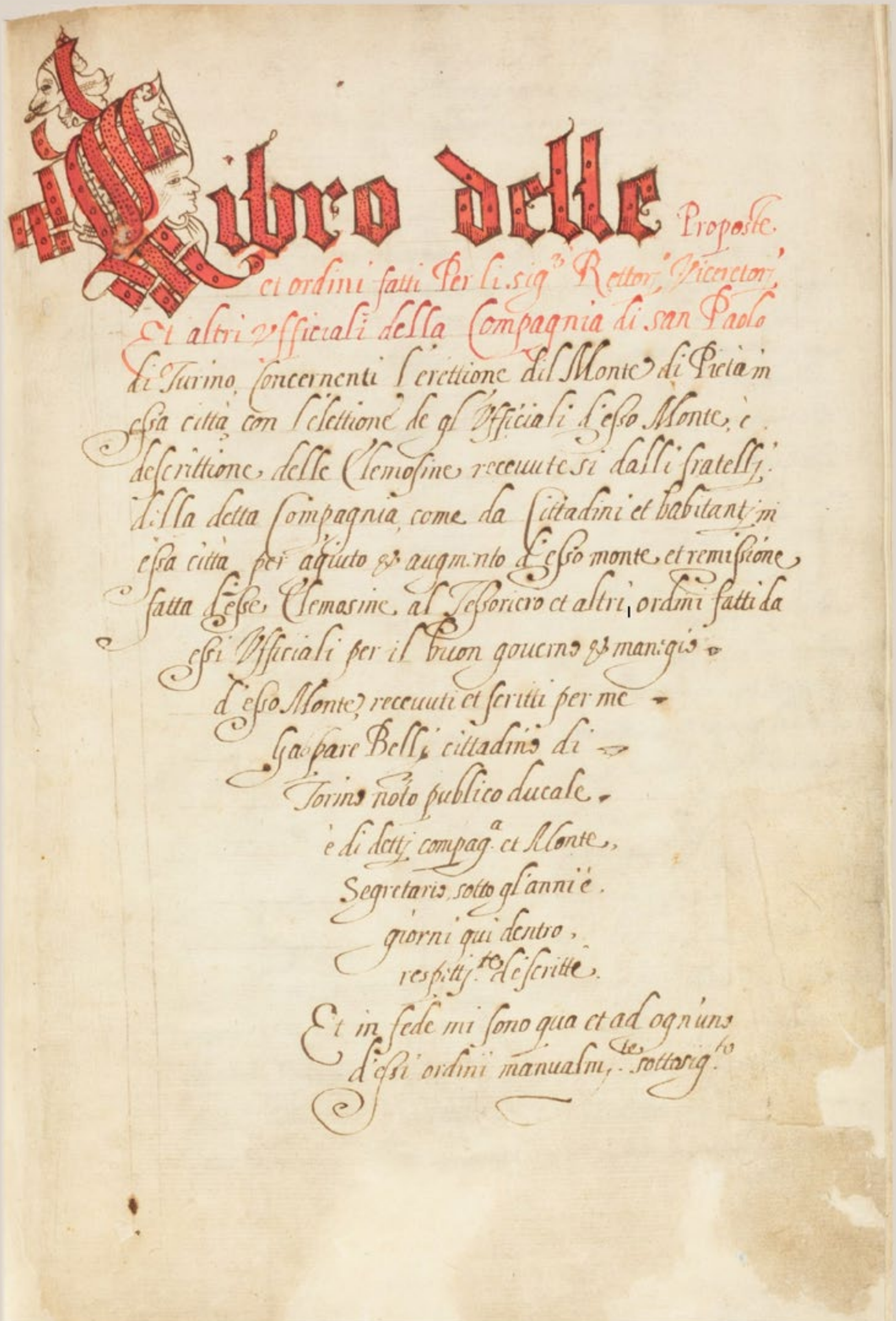
The advent of the 20th century represented a crucial phase for the Istituto bancario San Paolo di Torino, which began to take shape as a modern credit institution, characterised by a process of renewal and consolidation of its functions, thus strengthening its role and presence in the national economic and financial context.[1]

A full understanding of the *San Paolo's* role and financial support in building and rebuilding the national, regional, and urban areas in throughout the 1900s calls for us to retrace the centuries of the Bank's history. An Institute identified by a strong link between spirituality and solidarity, credit and charity, the evolution of aid towards education and philanthropy, and economic and financial development accompanied by a constant commitment to social and cultural growth.[2] The *Compagnia di San Paolo* was founded in 1563 by seven citizens of Turin, to assist the poor and curb the growth of Protestantism. The Company played a supporting role in the creation of several institutions: the *Monte di Pietà* (Mount of Piety or Pawnshop) in 1579, to provide an alternative to usury for those in desperate need of money; the educational and charitable institutes for women, *Casa del Soccorso*[3] (1589) and *Casa del Deposito*[4] (1683), that evolved into the *Educatorio Duchessa Isabella*;[5] and the *Ufficio pio*[6] (1595), that provided financial and religious assistance. The *Compagnia's* assets increased through bequests and donations, leading to the rapid development of a range of financial activities, that peaked in the mid-1700s.

With the advent of the liberal state in 1853, King Victor Emmanuel II limited the activity of the *Compagnia* to the religious sphere, entrusting all assistance and financial activities to a publicly appointed council, the *Opere Pie di San Paolo* of Turin, which became a public-law credit institution in 1932 and would later evolve into the *Istituto bancario San Paolo* of Turin. The Institute grew thanks to its role in post-World War II reconstruction,[7] its widespread presence in Piedmont with the opening of new branches, the diversification of its banking activities and its leading position in the European Currency Unit (ECU) market[8] that laid the foundations for its growth in Italy and abroad. After decades of growth, the 1992 privatization following the relevant Banking Law (the 1991 Amato-Carli Law) broke up the Institute's activities: the banking side was entrusted to a newly set up joint-stock company *San Paolo S.p.A.* (which would go on to become *Intesa Sanpaolo* in 2007), while the philanthropic activities were managed by the *Compagnia di San Paolo*.[9]

The building role of the *Istituto bancario San Paolo di Torino* in short

In the late 1800s and the first thirty years of the 1900s the *Opere Pie di San Paolo* underwent a radical transformation from a charitable institution into a public credit institution. Banking remained linked to charity funded by bank profits. The link was further strengthened by the new 1901 Statute,[10] accompanied by a carefully crafted report, that significantly started with a meaningful definition by Pascal *se conserver en se renouvelant,* whereby the Turinese body was renamed *Istituto delle Opere Pie di San Paolo in Torino - Beneficenza e credito,* thus consolidating the two traditional roots. The role of San Paolo in building reflects its dual-purpose mission. In this text, we will illustrate this with examples related to public housing, the 'hospital issue',[11] and post-war reconstruction leading up to Italia '61 in 1961, as well as the



Libro delle Proposte
et ordini fatti Per li sig.ri Rettori, Viceretori,
Et altri Officiali della Compagnia di san Paolo
di Turino, concernenti l'erettione del Monte di Pietà in
essa città con l'elettione de gl'Officiali d'esso Monte, e
descrittione delle Elemosine receuute si dalli fratelli
della detta Compagnia, come da Cittadini et habitanti in
essa città per agiuto et augmento d'esso monte et remissione
fatta d'esse Elemosine al Tesoriero et altri ordini fatti da
essi Officiali per il buon governo et maneggio
d'esso Monte, receuuti et scritti per me
Gaspare Belli, cittadino di
Torino noto publico ducale,
e di detti compag.a et Monte,
Segretario sotto gl'anni e
giorni qui dentro
respett.te descritte.
Et in fede mi sono qua et ad ognuno
d'essi ordini manualm.te sottosig.to

1

Image 1. Book of Minutes of the Mount of piety, 1579-1633, frontispiece.

growing number of new bank branches during the first eighty years of the 20th century. Thanks to its new, more stable organisation and leadership, the *Istituto* contributed to the development of the city of Turin by funding its infrastructure and the municipalisation of essential services and utilities such as water, power, and transport. It also played a major role in residential building, starting to construct affordable housing between 1903 and 1905. In 1907 it joined a group of local banks in establishing the *Istituto case popolari* (the Public Housing Agency) with a non-repayable contribution of one million Lire.[12]

The increasing amount of donations for works of public interest were listed in the minutes of meetings of the Board of Directors and the Executive Committee, as well as several other publications.[13] As an example, an entire chapter of the 1913 celebratory volume was devoted to donations to public utility work and charity in the 1903-1912 decade, for the 350th anniversary of its foundation.[14] The chapter included the most significant donations such as half a million Lire for the 'hospital issue', 100,000 Lire for the 1911 Turin International Expo and over 20,000 Lire to build the stadium on the same occasion, on top of the million Lire for the Public Housing Agency.[15] (Images 1 – 7)

Housing shortage was a major problem in the early 20th century and was closely linked to hygiene and health concerns.

Affordable Public Housing

In the early 20th century, Turin experienced significant growth in the textile, mechanical, and especially automotive industries creating new work opportunities and stimulating the economic growth of the city that had become a major manufacturing centre.

The industrialisation had a great impact on the urban structure of Turin: new industrial and residential areas were built to address the needs of a growing working class and the city witnessed large industrial complexes and residential districts developing side by side.

It was against this backdrop that the new headquarters of the *Istituto delle Opere Pie di San Paolo* was inaugurated in *via Monte di Pietà* on October the 6th 1902, with the ceremony being attended by King Victor Emmanuel II, Princess Leticia Bonaparte and Emmanuel Philibert, Duke of Aosta and cousin of the King. On that occasion, Ignazio Marsengo Bastia, President of the *Opere Pie,* announced the building of houses for the widows of workers with children, thus triggering a major commitment of the *Istituto* in 20th-century publicly subsidized housing.

Housing shortage was a major problem in the early 20th century and was closely linked to hygiene and health concerns. As a result, dwellings were completed in the months following the inauguration of the new headquarters, thus honouring the commitment undertaken in front of the sovereign. Work was commissioned to the engineer Prospero Peyron according to Andrea Torasso's decorative layout.

In 1904, in a district already known as *Barriera di San Paolo,* along via Vigone, six semi-detached houses, each with two dwellings totalling 12 apartments with gardens, were built. A plaque featuring Saint Paul crafted by the sculptor Davide Calandra–the same as on the Institute's headquarters–was placed on the first semi-detached house. Building costs exceeded the estimates, and the 120,000 Lire fund barely covered the construction, falling short of the land cost and all additional work.[16] By March 1906, only one of the twelve dwellings was occupied. The rest remained vacant because of the 1905 regulations which designated them exclusively for widows (with children) who had lost their husbands in an industrial accident. A month's rent was required as a security deposit to cover any potential damage, even though widows were only permitted to work in domestic roles like sewing, spinning, and knitting. In 1919 the houses were sold, and five were demolished in the late 1950s during the economic and construction boom. Today only one of them remains in via Vigone 14-16.

As mentioned, the *San Paolo* took part in the establishment of the *Istituto delle case popolari* (the Public Housing Agency) with a non-repayable one million Lire grant towards the initial capital. In the following years, the *San Paolo* made other grants, and thanks to its contributions 800 dwellings were constructed in 1927 in the Turin districts of Lucento, Mirafiori, Regio Parco and in the town of Aosta. In the same year, the *San Paolo* took on the new name of *Istituto di San Paolo in Torino. Beneficenza e Credito.*

In 1938 the Institute organised a 10 million Lire loan in line with the Fascist propaganda to provide very affordable rented housing for low-income families. They were very simple one-room dwellings with kitchen and bathroom, located in via Biglieri, 254. They were also known as *'Bulgarian flats',* because small apartments in large developments were commonly associated with Eastern Europe in popular imagination.[17]

In 1932, the *Istituto Bancario San Paolo di Torino* became a public law bank.[18] In the mid-1950s, the Bank itself built residential blocks between via Susa and Casalis, in the area next to the *Educatorio Duchessa Isabella.*[19] The construction costed 400 million Lire. Some of the many apartments were rented to employees of the Bank at subsidized rates. In the same decade, the Bank

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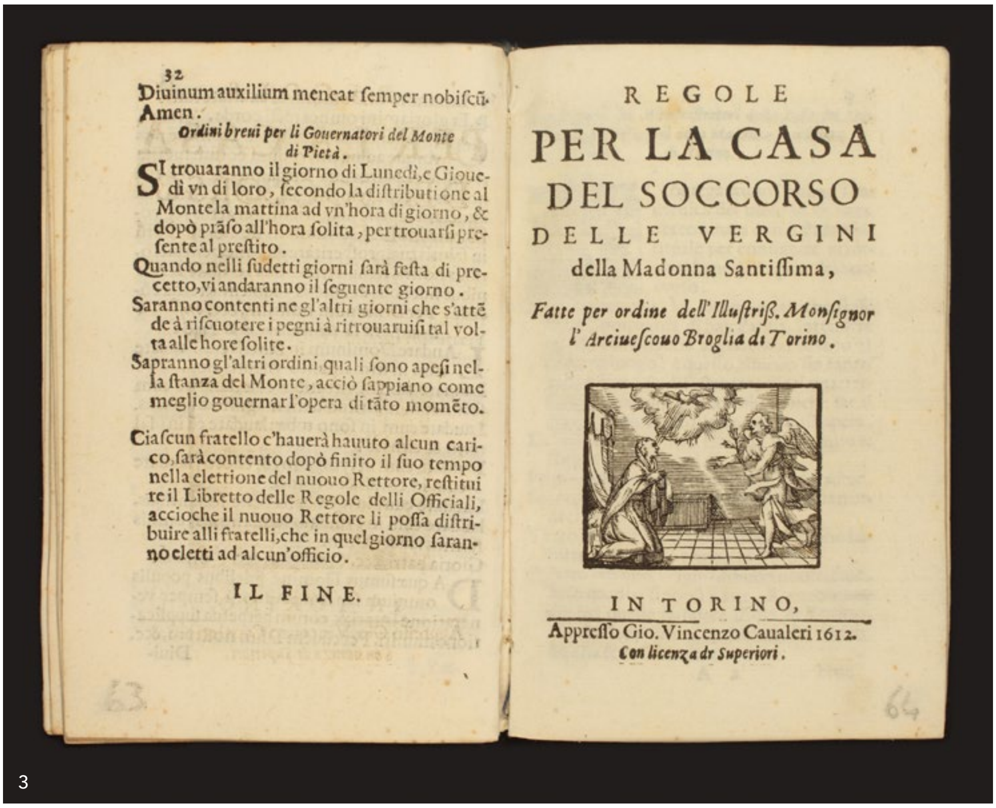

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Diuinum auxilium maneat ſemper nobiſcū. Amen.

Ordini breui per li Gouernatori del Monte di Pietà.

SI trouaranno il giorno di Lunedì, e Gioue-di vn di loro, ſecondo la diſtributione al Monte la mattina ad vn'hora di giorno, & dopò prāſo all'hora ſolita, per trouarſi preſente al preſtito.

Quando nelli ſudetti giorni ſarà feſta di precetto, vi andaranno il ſeguente giorno.

Saranno contenti ne gl'altri giorni che s'attē de à riſcuotere i pegni à ritrouaruiſi tal volta alle hore ſolite.

Sapranno gl'altri ordini quali ſono apeſi nella ſtanza del Monte, acciò ſappiano come meglio gouernar l'opera di tāto momēto.

Ciaſcun fratello c'hauerà hauuto alcun carico, ſarà contento dopò finito il ſuo tempo nella elettione del nuouo Rettore, reſtitui re il Libretto delle Regole delli Officiali, accioche il nuouo Rettore li poſſa diſtribuire alli fratelli, che in quel giorno ſaranno eletti ad alcun'officio.

IL FINE.

REGOLE PER LA CASA DEL SOCCORSO DELLE VERGINI della Madonna Santiſſima,

Fatte per ordine dell'Illuſtriſſ. Monſignor l'Arciueſcouo Broglia di Torino.

IN TORINO,
Appreſſo Gio. Vincenzo Caualeri 1612.
Con licenza de Superiori.

3

Image 2. Bull by which Pope Gregory XIII instituted the Turin Mount of piety and entrusted its government and organisation to the Compagnia di San Paolo, 1 March 1579.

Image 3. Rules for the Rescue House, 1612, Turin: G.V. Cavalieri, frontispiece.

approved two loans to the Public Housing Agency *(Istituto per le case popolari)*: one of 500 million Lire used to build the Cadore and Valdellatorre neighbourhoods, and the other of over a billion to build the Vallette district. In 1970, together with Fiat and the Public Housing Agency *(Istituto per le case popolari)*, the Bank funded the construction of four thousand residences in the city and outskirts.

These examples underscore San Paolo's significant sensitivity and financial support in addressing housing shortages, following the approach established in the early 1900s with the housing for the widows. (Images 8 – 11)

The 'Hospital Issue'

During the first half of the century, Turin, as the capital of the region, experienced a growth of population and an industrial development, which in turn led to an increase in health service demands. New hospitals were built, and old ones extended to cope with the growing population as well as increased more severe epidemics. Over time, in the mid 1900s hospital services were rationalised and reorganised, with specialised wards established to improve the efficiency and effectiveness of medical treatment.

The *San Paolo* played an active role in this development, starting from 1 January 1880, when it took over the temporary management of the *Ospedale Maggiore di San Giovanni Battista di Torino* following a major financial crisis of the hospital, giving rise to a long-standing cooperation in the whole sector.

The Historical Archive of the San Paolo (*Archivio storico della Compagnia di San Paolo*[20]) contains records of this cooperation. Since 2012, the Archive has been managed and valorised by the *Fondazione 1563 per l'Arte e la Cultura della Compagnia di San Paolo*. It highlights the crucial role played by the *Antica Compagnia di San Paolo,* the *Opere pie di San Paolo,* and the *Istituto Bancario San Paolo di Torino* in the modern development of the city of Turin.

One of the primary activities of the ancient *Compagnia di San Paolo* (1563-1852) and the *Ufficio pio* was their ongoing focus on caring for impoverished patients. However, they particularly focused on a specific group of *'poveri vergognosi'* (shameful poor), namely impoverished nobles and middle-class individuals. The *Compagnia* had separate initiatives for other impoverished people, including free pawn services through the *Monte di Pietà* (Mount of Piety or Pawnshop) and support from the *Ospedale di carità* (The Hospital of Charity), which offered financial support, moral comfort and home examinations and visits. "Many hospitals in Turin benefited from the contribution of the *San Paolo* when they were founded, and in several cases the Institute has financially followed their subsequent development".[21]

The earliest evidence of this commitment is the afore mentioned *Ospedale di carità*[22] and the *Ospedale dei pazzerelli* (Asylum for the Insane). King Charles Emmanuel I decided to merge the *Ospedale di carità* with the *Ospedale di San Lazzaro* (the Saint Lazarus Hospital): it was opened in 1628, however, it closed in 1630 already due to the outbreak of the plague. It was the 1649 great famine that led the *Compagnia* to reopen the *Ospedale di carità* for sick beggars in 1650, in this way playing a key role and strengthening the city's assistance system.

The *Ospedale dei pazzerelli* was built to address a major social problem: people suffering from mental illness. The *San Paolo* paid 10,000 Lire towards the building of new premises on the land donated in 1728 by King Victor Amadeus II, close to the San Isidoro area in the new extension of the city westwards.

During the Restoration (1814 to 1851), the *Compagnia* oversaw the management of the health services for the poor,[23] including free service of doctors and surgeons, pharmaceutical assistance, and other specialist services.[24] Within this framework, in 1837 the *San Paolo* helped to create the Eye Hospital *(Ospedale oftalmico)* that was opened a year later. In 1883, the *San Paolo* agreed to a grant for the establishment of the *Ospedale Infantile Regina Margherita* (the Children's Hospital), inaugurated on December the 28th 1890, and to the women's and children's hospital, the future *Ospedale Maria Vittoria,* opened in August 1887. The *San Paolo* also played an important role in the establishment of the *Ospedale Amedeo di Savoia* for infectious diseases, driven by recurring epidemics, such as cholera and smallpox. The hospital was opened on 1 January 1900. The *San Luigi* was another hospital where the *San Paolo's* contribution was crucial: in 1914 it received a donation for the establishment of the photo-radio-electrotherapy entitled to the *Opere Pie di San Paolo*.

Healthcare and welfare increasingly became public responsibilities between the 19th and the 20th centuries. *San Paolo* strengthened its ties with the city hospitals by managing their finances and providing donations or loans. This support facilitated updates and the construction of specialist laboratories, as well as funding expansions, modernizations and the purchase of material, equipment, and ambulances. In the early 20th century, *San Paolo* actively took part in the public debate about hospitals, that ended with the development of the *Ospedale delle Molinette,*[25] currently the largest hospital facility in Piedmont. Resolutions concerning the financing of the hospital from 1903 to 1930, interrupted only by the pause of the First World War, are preserved in the Historical Archive.

In 1880, *San Paolo* temporarily took over the management of the *Ospedale San Giovanni,*[26] that needed new premises to cope with the city's industrial development, which was lacking in facilities in relation to the increasing population growth.

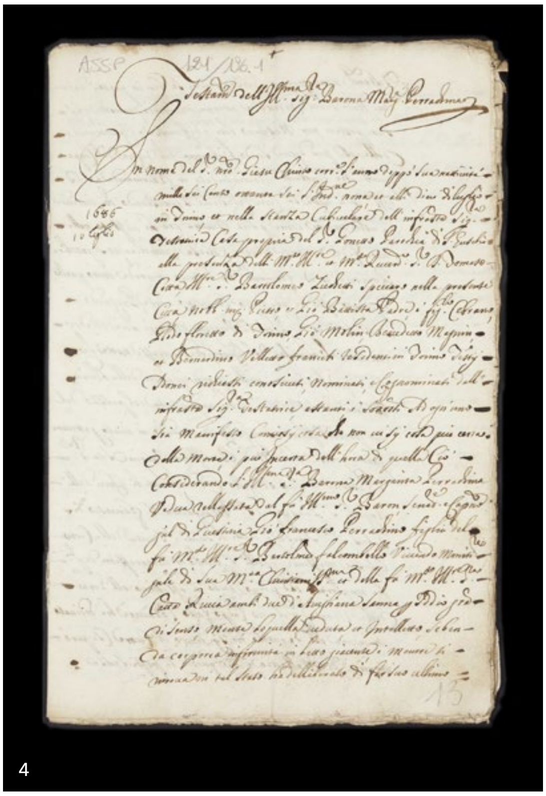

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Image 4. Testament of Baroness Margherita Falcombello, widow Perrachino, co-founder and then director of the Casa del deposito. Turin, 10 July 1686.

Image 5. The first page of the Book of Minutes of the Pius Charity Office, 1595-1609.

Image 6. Façade of the Educatorio Duchessa Isabella in what is now Piazza Bernini in Turin, photograph by Bernardo Pasta, 1911.

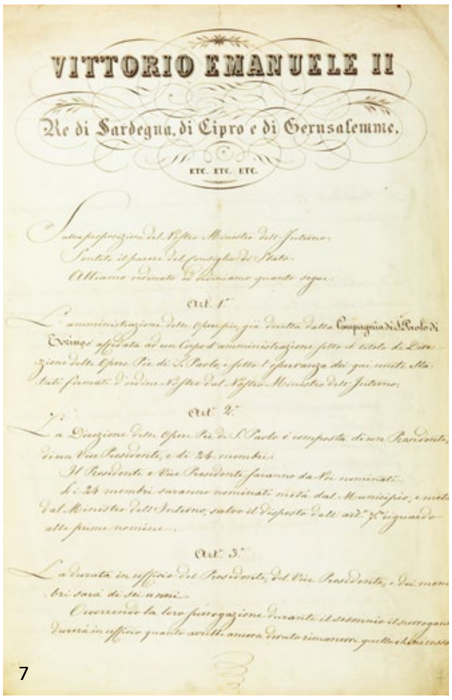

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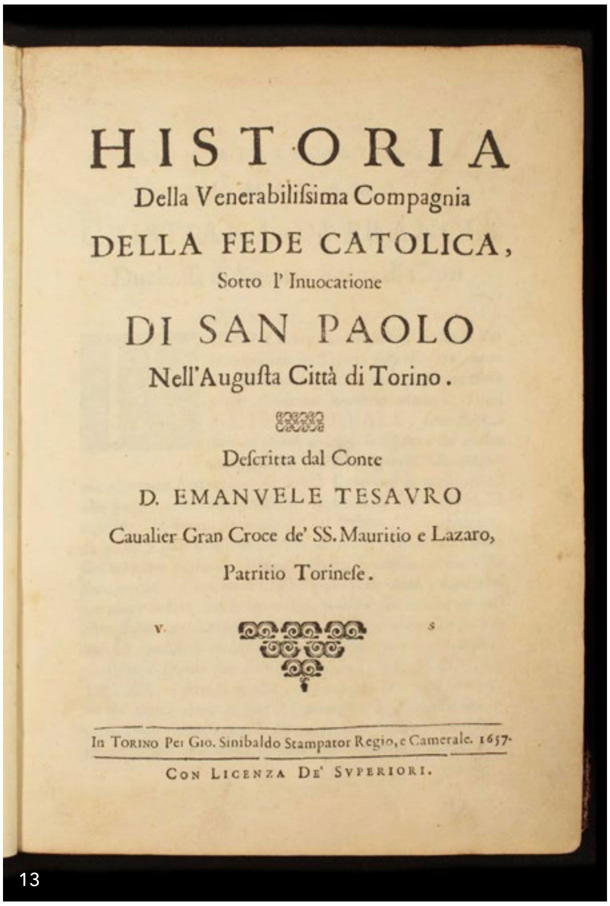
Image 7. King Victor Emmanuel II entrusts the administration of the Opere Pie to the Directorate of the Opere Pie di San Paolo, Decree, 13 February 1853. Turin.

Image 8. Inauguration of the building of the Istituto delle Opere Pie di San Paolo in via Monte di pietà on October the 6th 1902, at the presence of King Victor Emmanuel II, the Princess Leticia Bonaparte and Emmanuel Philibert, Duke of Aosta and cousin of the King.

Image 9. Hall on the ground floor for the credit and treasury services of the Turin office, via Monte di Pietà, early 1900s.



HISTORIA
Della Venerabiliſsima Compagnia
DELLA FEDE CATOLICA,
Sotto l' Inuocatione
DI SAN PAOLO
Nell'Auguſta Città di Torino.

Deſcritta dal Conte
D. EMANVELE TESAVRO
Caualier Gran Croce de' SS. Mauritio e Lazaro,
Patritio Torineſe.

In Torino Per Gio. Sinibaldo Stampator Regio, e Camerale. 1657.
Con Licenza De' Svperiori.

Image 10. Workers' buildings, designed by Andrea Torasso. Turin, Borgo San Paolo, 1904.

Image 11. Plaster sketch with an effigy of Saint Paul, a tribute by the sculptor Davide Calandra, with the words "Istituto delle Opere Pie di San Paolo – Charity and Credit", 1904.

Image 12. Andrea Casella (attributed to), antiporta for Tesauro E., Historia della Venerabilissima Compagnia della Fede Catolica sotto l'Invocatione di San Paolo nell'Augusta Città di Torino, engraving, 1657.

Image 13. Tesauro E., Historia della Venerabilissima Compagnia della Fede Catolica sotto l'Invocatione di San Paolo nell'Augusta Città di Torino, G. Sinibaldo, Turin, 1657, frontispiece.

In 1913 the new location was identified,[27] but the outbreak of World War I stopped the project in its tracks. In 1925 the *Istituto* donated 1,500,000 Lire[28] and became a member of the consortium created *ad hoc* for the hospitals with the *Ospedale di San Giovanni,* the Ministry of Education, the Royal University of Turin, the City and Province of Turin, the Royal Asylum, the *Ospedale di San Lazzaro*, the *Cassa di risparmio* and the Abegg[29] heirs. King Victor Emmanuel III inaugurated the hospital on November the 9th, 1935, a major event in the landscape of Turin hospital development. The bond between the *San Paolo* and the Hospital became even stronger in the post-World War II period because the bank opened a branch for hospital employees, patients' families' members and other private clients on the ground floor.

In 1938, the construction of the obstetrics and gynaecology clinic, *Ospedale Sant'Anna,* meant yet another upgrade for the Turin hospital scene. After World War II, *San Paolo* maintained its financial support for the city's hospitals, as evidenced by the thousands of donation and loan records preserved in the Historical Archives of San Paolo.

On 12 February 1968, Law 132 reclassified hospitals as *Enti ospedalieri* (Hospital bodies), marking their transition from charitable to public institutions and completing the shift in management to the state, a century after the Unification of Italy. Starting in the 1970s, in line with legal changes, funds from the *Istituto* allocated to hospitals were recorded as covering public shortfall. Today, welfare and healthcare remain key focus areas for the *Fondazione Compagnia di San Paolo,* which continues to support public health through its funding. (Images 12 – 16)

Many hospitals in Turin benefited from the contribution of the San Paolo when they were founded, and in several cases the Institute has financially followed their subsequent development.

Post-War Reconstruction and the Italia '61 Development

The *Istituto* played a key role in rebuilding Turin after World War II, as the city had been badly hit by allied bombing due to its importance in industry and weapon manufacturing.

San Paolo provided continuous financial support, which was key to the city's repopulation and the economic revival. This support was bolstered by internal migration, the issuance of over five billion Lire in loans and mortgages to repair and reconstruct damaged infrastructure and housing, and the reconstruction of new facilities until the later 1950s. "The Istituto San Paolo was involved in all mayor public works completed or started in the city, including significant cultural and strategic projects like the Modern Art Gallery *(Galleria d'arte moderna),* the civic library *(Biblioteca civica),* the Caselle Airport and the reconstruction of the Turin Opera House (Teatro Regio)".[30] San Paolo also supported the reorganisation of services such as energy and transport, as well as improvements in school buildings and road infrastructure throughout the region to enhance the overall network.

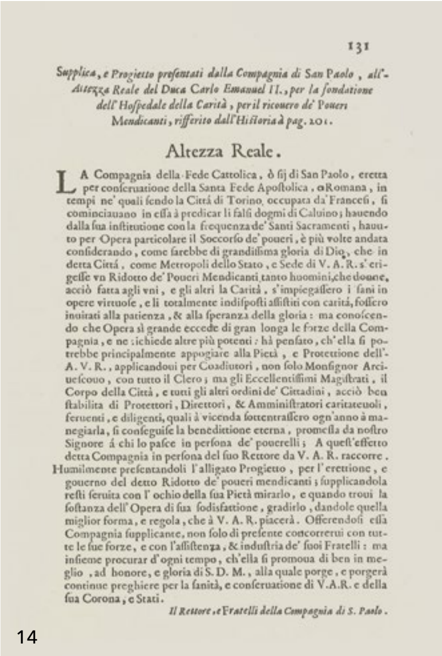
In 1950, the company's name changed to *Istituto Bancario San Paolo di Torino* and the new Statutes formalised the transition from a primarily savings to a commercial bank. In 1960, the Public Works Section was established for medium- and long-term funding of public work and publicly used facilities. In the mid-1960s, the institution expanded its reach both nationally and internationally. This growth paved the way for significant developments over the next thirty years, including the acquisition of various banks and the establishment of branches across the country and overseas.

San Paolo made a substantial contribution to the renaissance and the economic development of Italy by taking part in financing a diverse range of sectors, including banking to tourism, and construction, which involved building motorways and Alpine tunnels. The company also engaged in socially significant initiatives, supporting hospitals, university institutes, educational institutions, orphanages, welfare and assistance centres and similar organisations.

Turin was pivotal in the Italian Risorgimento[31] and served as the first capital of the newly unified Italian state from 1861 to 1865. It was in the Subalpine Parliament that the Italian State was officially proclaimed in March 1861. The official celebrations for the centenary of the Unification of Italy took place in Turin.

On that occasion, the *Istituto* was involved in planning the work for *Italia '61.*[32] The Bank had previously helped to finance urbanisation in the Southern part of the city, with major loans and mortgages, all in view of the Expo area. It assisted in construction and facilities of public interest such as the modern expo area, including the designs for theme focussed exhibitions. During the Italia '61 exhibition it made a 100 million Lire donation to the *Comitato Italia '61.*[33] The city decided to locate the event between the River Po and via Ventimiglia along Corso Unità d'Italia.

The *Mostra storica dell'Unità d'Italia* (Historical Exhibition of the Italian Unification), the *Mostra delle Regioni*



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Supplica, e Progietto preſentati dalla Compagnia di San Paolo, all'Altezza Reale del Duca Carlo Emanuel II., per la fondatione dell'Hoſpedale della Carità, per il ricouero de' Poueri Mendicanti, rifferito dall'Hiſtoria à pag. 201.

Altezza Reale.

LA Compagnia della Fede Cattolica, ò ſij di San Paolo, eretta per conſeruatione della Santa Fede Apoſtolica, e Romana, in tempi ne' quali ſendo la Città di Torino occupata da' Franceſi, ſi cominciauano in eſſa à predicar li falſi dogmi di Caluino; hauendo dalla ſua inſtitutione con la frequenza de' Santi Sacramenti, hauuto per Opera particolare il Soccorſo de' poueri, è più volte andata conſiderando, come ſarebbe di grandiſſima gloria di Dio, che in detta Città, come Metropoli dello Stato, e Sede di V. A. R. s'erigeſſe vn Ridotto de' Poueri Mendicanti tanto huomini, che donne, acciò fatta agli vni, e gli altri la Carità, s'impiegaſſero i ſani in opere virtuoſe, e li totalmente indiſpoſti aſſiſtiti con carità, foſſero inuitati alla patienza, & alla ſperanza della gloria: ma conoſcendo che Opera sì grande eccede di gran longa le forze della Compagnia, e ne richiede altre più potenti: hà penſato, ch'ella ſi potrebbe principalmente appogiare alla Pietà, e Protettione dell'A. V. R., applicandoui per Coadiutori, non ſolo Monſignor Arciueſcouo, con tutto il Clero; ma gli Eccellentiſſimi Magiſtrati, il Corpo della Città, e tutti gli altri ordini de' Cittadini, acciò ben ſtabilita di Protettori, Direttori, & Amminiſtratori caritateuoli, ferventi, e diligenti, quali à vicenda ſottentraſſero ogn'anno à manegiarla, ſi conſeguiſe la benedittione eterna, promeſſa da noſtro Signore á chi lo paſce in perſona de' pouerelli; A queſt'effetto detta Compagnia in perſona del ſuo Rettore da V. A. R. raccorre. Humilmente preſentandoli l'alligato Progietto, per l'erettione, e gouerno del detto Ridotto de' poueri mendicanti; ſupplicandola reſti ſeruita con l'ochio della ſua Pietà mirarlo, e quando troui la ſoſtanza dell'Opera di ſua ſodisfattione, gradirlo, dandole quella miglior forma, e regola, che à V. A. R. piacerà. Offerendoſi eſſa Compagnia ſupplicante, non ſolo di preſente concorreru con tutte le ſue forze, e con l'aſſiſtenza, & induſtria de' ſuoi Fratelli: ma inſieme procurar d'ogni tempo, ch'ella ſi promoua di ben in meglio, ad honore, e gloria di S. D. M., alla quale porge, e porgerà continue preghiere per la ſanità, e conſeruatione di V.A.R. e della ſua Corona, e Stati.

Il Rettore, e Fratelli della Compagnia di S. Paolo.

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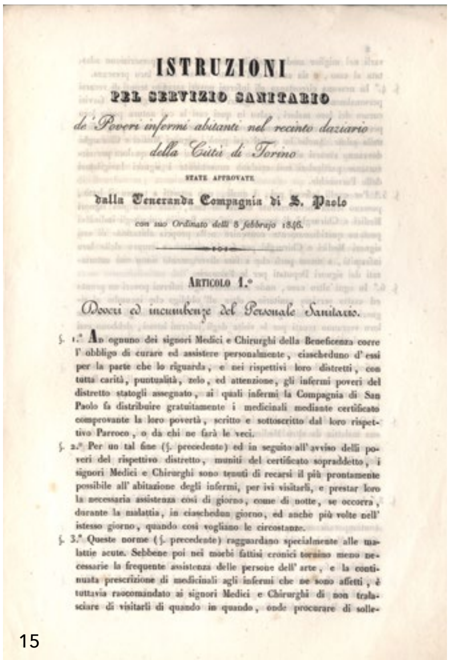

ISTRUZIONI

PEL SERVIZIO SANITARIO

de' Poveri infermi abitanti nel recinto daziario della Città di Torino

STATE APPROVATE

dalla Veneranda Compagnia di S. Paolo

con suo Ordinato delli 8 febbrajo 1846.

ARTICOLO 1.°

Doveri ed incumbenze del Personale Sanitario.

§. 1.° AD ognuno dei signori Medici e Chirurghi della Beneficenza corre l'obbligo di curare ed assistere personalmente, ciascheduno d'essi per la parte che lo riguarda, e nei rispettivi loro distretti, con tutta carità, puntualità, zelo, ed attenzione, gli infermi poveri del distretto statogli assegnato, ai quali infermi la Compagnia di San Paolo fa distribuire gratuitamente i medicinali mediante certificato comprovante la loro povertà, scritto e sottoscritto dal loro rispettivo Parroco, o da chi ne farà le veci.

§. 2.° Per un tal fine (§. precedente) ed in seguito all'avviso delli poveri del rispettivo distretto, muniti del certificato sopraddetto, i signori Medici e Chirurghi sono tenuti di recarsi il più prontamente possibile all'abitazione degli infermi, per ivi visitarli, e prestar loro la necessaria assistenza così di giorno, come di notte, se occorra, durante la malattia, in ciascheduno giorno, ed anche più volte nell'istesso giorno, quando così vogliano le circostanze.

§. 3.° Queste norme (§. precedente) riguardano specialmente alle malattie acute. Sebbene poi nei morbi fattisi cronici tornino meno necessarie la frequente assistenza delle persone dell'arte, e la continuata prescrizione di medicinali agli infermi che ne sono affetti, è tuttavia raccomandato ai signori Medici e Chirurghi di non tralasciare di visitarli di quando in quando, onde procurare di solle-

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Image 14. Supplication presented by the Compagnia di San Paolo to Charles Emmanuel II for the foundation of the Hospital of Charity, accepted by the Duke with authorization of 30 August 1649 [Tesauro, 1657, p.131].

Image 15. Instructions for the health service of the infirm poor inhabitants in the district of Turin approved by the Venerable Compagnia di San Paolo with its ordinance of 8 February 1846.

Image 16. Donation of ambulances by the Istituto Bancario San Paolo di Torino, 1980s.

(Exhibition of the Regions) and the *Esposizione Internazionale del Lavoro* (International Labour Exhibition) were the main events, along with sporting competitions, performances, and several other celebrations. Luciano Jona, the then-President of the *Istituto,* was also the councillor for the celebrations, and the CEO of the shareholding company *Torino '61* that held the funds for the event. The *Istituto Bancario San Paolo* also provided Treasury Service for the Italian National Committee *(Comitato Nazionale di Italia '61)* and handled currency exchange service.

Many of the documents, including valuable photographs related to the organisation and preparation of exhibitions and facilities, are held in the *Archivio storico della Compagnia di San Paolo* and the Angelo and Jolanda Dragone Archive for Contemporary Art in Piedmont.[34] The 1563 Foundation holds the minutes of meetings, donation records, brochures of exhibitions and performances and press reviews.

The architecture of the exhibition and the organisation of the celebrations were designed to showcase the technical advancements of a major industrial city. Building sites adhered to strict schedules, utilizing cutting-edge technologies and scientific planning in their operations. The architect Nello Renacco (1915-1978) oversaw the planning of two main expo centres: the *Palazzo del Lavoro*[35] and the *Palazzo a Vela*[36] including a series of pavilions along the River Po.[37] The *Palazzo a Vela* (the Building of Sails), also known as *PalaVela* and originally *Palazzo delle Mostre* (The Exhibition Building) is a multipurpose building that owes its name to its sail-like-shape. Along with the *Palazzo del Lavoro* (The Labour Building), it became the symbol of *Italia '61* par excellence. After many years in which it fell into oblivion, it once again emerged as one of the main buildings of Turin's urban landscape during the XX Winter Olympics in 2006. *Fondazione 1563* has emphasized the significance of its archival records related to the Unification celebrations by creating a digital experience called '*Walks of change*'. This digital journey details the city's evolution and transformation over time, showcasing how the archival material illuminates the historical changes.[38]

> San Paolo made a 100 million Lire donation to the Comitato Italia '61 (The Italia '61 Committee).

In 1961, as part of the overall post-war reconstruction and the company's commitment to Turin's urban renaissance, *San Paolo* completed the renovation of a modern headquarters building in the ancient *Palazzo Turinetti di Pertengo,* formerly known as *Renaud di Faliçon.* The building is in the very central San Carlo Square and was designed by Carlo di Castellamonte in the 17th century and then remodelled by Giovanni Battista Borra a century later. It was severely damaged by air bombing in 1942 and 1943 and purchased by the bank in 1949. *San Paolo* firstly commissioned the work to engineer and architect Arturo Midana. Subsequently, the architect Mario Dezzutti integrated and completed the construction. The ancient *Caffè San Carlo* nearby was also refurbished following designs by Midana, implemented by Dezzutti. The headquarters were inaugurated in the fall of 1963, the year of the four hundredth anniversary of the *Istituto.* The building is a daring mix of ancient and contemporary architecture, a mixture of Baroque style, and high-end technological equipment. The building, for instance, includes a *drive-in-bank* and a very modern glass and steel wing. The space was designed to introduce cutting-edge technologies such as bank service automation, 24/7 cash dispensers and night safes, closed circuit indoor television, pneumatic post, safes, and a conference hall. All this is documented by photographic campaigns and preserved in the *Archivio Storico* (Historical Archive) *of Compagnia di San Paolo,* carried out by important studios such as Aldo Moisio, Augusto Pedrini, Giustino Rampazzi, and Ferruzzi. Since May 2022 the *Gallerie d'Italia* have been using the building for exhibitions and some of the Bank's important collections.[39]

While constructing its headquarters, San Paolo also established an accounts centre *(centro contabile)* in Moncalieri, near Turin. Opened in 1964, the centre features a façade in glass and steel, incorporates advanced technology for data management and processing, and provides recreational spaces and services for employees.

Between 1960 and 1980, *San Paolo* expanded into the South by investing in infrastructure and public housing, as well as by opening branches in Naples, Bari, and Catania. In 1975 it received authorisation to operate nationwide.

In the 1980s, the *Istituto* was a forerunner of the 1990 Amato-Carli provisions,[40] and focused on cultural heritage and scientific research by establishing the *Fondazione San Paolo di Torino per la cultura, la scienza e l'arte*[41] (the San Paolo Foundation of Turin for Culture, Art and Science) in 1985. This transformation enabled the foundation to fund major museums, starting with the Egyptian Museum in Turin, as well as to finance the refurbishment of the *Pinacoteca di Brera* in Milan (1987) and the restauration of the San Fruttuoso Abbey in Camogli (1989). Furthermore, the foundation promotes academic research into finance and economics via scholarships for young graduates in economic and financial disciplines, in honour of Luciano Jona.[42]

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Image 17. Poster of Italy '61.

Image 18. The Palazzo a Vela. Turin. 1961.

Image 19. The Palazzo del Lavoro. Turin. 1961.

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Image 20. San Carlo Square, façade of the Palais Renaud de Faliçon after the air raids of July 1943.
Image 21. San Carlo square building after renovation: armoured vaulting door, photograph by Giustino Rampazzi, 1963.

Image 22. Drive-in bank. Six drivers can perform any task at the same time while remaining behind the wheel. 1968.

The cultural sector, together with the education sector, is thus seen by the Institute as a fundamental player in a modern concept of social construction, with a crucial role as a builder and guarantor of equal access to education and culture. Through its commitment to supporting cultural initiatives and educational programmes, Intesa Sanpaolo aims to create opportunities for the growth and development of local communities. San Paolo's actions are reflected in the financing of artistic events, the restoration of cultural heritage and educational projects in schools, promoting social integration and collective well-being. In this way, the Institute not only promotes culture as a fundamental value of society, but is also committed to ensuring that everyone, regardless of their socio-economic background, has access to educational and cultural resources, thus contributing to a more inclusive and aware future. (Images 17 – 22)

Conclusions

We have traced the public impact history of the *Istituto Bancario San Paolo di Torino,* showcasing how the bank has successfully established a stable and trustworthy financial environment over time. This success has positioned the bank as a key player in regional and economic development and management. The bank has been instrumental in collecting deposits and providing loans to support economic activities and enhance social well-being in areas such as affordable housing, healthcare, and education, aiming to mitigate social inequality.

Today, *Fondazione Compagnia di San Paolo* continues this legacy through its instrumental bodies, upholding the original values of its founders while advancing its social, economic, and territorial objectives. Its mission includes protecting vulnerable groups, promoting educational inclusion, supporting social housing, and fostering regional and cultural development. The foundation remains committed to environmental sustainability, technological innovation, and community service. It has set three mayor goals: culture, people, and planet, aligning with the 2030 UN Agenda for Sustainable Development Goals. ●

Author

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1 *The San Paolo bank in Turin: from its foundation to the present day.* Turin: Aeda, 1968.

2 Cantaluppi, A. 2008. *The Historical Archives of Compagnia di San Paolo,* edited by Cantaluppi A. Turin: Compagnia di San Paolo, p. 9.

3 In 1589 *La Casa del Soccorso (The Rescue House)* was established in Turin by the Compagnia di San Paolo, to 'receive and educate young daughters born in Turin, without their father or parents, therefore more easily exposed to the dangers of life'. In addition to girls in difficult situations, the House took in the female relatives of the members of the Compagnia, and boarders for a fee.

4 In 1683 the *Casa del Deposito* was established by Compagnia di San Paolo in Turin to provide hospitality to women victims of exploitation and violence.

5 In 1883 the *Casa del Soccorso* and *Casa del Deposito* became jointly known as *The Educatorio Duchessa Isabella,* and young girls an education, from elementary to high school, in the purpose-built site in today's Piazza Bernini in Turin.

6 In 1595, the *Ufficio pio* (The Pius Charity Office) was established and is the oldest instrumental body of Compagnia di San Paolo. It operates autonomously within remits set by Compagnia to support vulnerable people and families or those suffering from social and economic hardship within the Region Piedmont, with a focus on the Turin area. *The Ufficio* pio operates thanks to the action of about 150 volunteers and a staff of operators. Its remit is the fight against poverty; poverty prevention; inclusion and reintegration; European projects.

7 After the Second World War, the *Istituto* became a key player in supporting Italy's economic recovery. In the post-war years, Italy was undergoing a process of reconstruction that required significant financial resources to rebuild infrastructure, support businesses and create new jobs. In this context, the bank stood out for its support of companies and public projects, making a significant contribution to the country's economic growth.

8 In 1981, *Istituto bancario San Paolo di Torino* signed an international banking agreement with Crédit Lyonnais and Bayerische Kreditbank to provide loans denominated in ECU (European Currency Unit), the virtual currency introduced by the European Community in 1978. This agreement marked the beginning of San Paolo's specialisation as the bank of reference for European Community institutions, taking a leading role in promoting European monetary unity and consolidating its visibility and relevance at the international level.

9 The *Fondazione Compagnia di San Paolo* is one of the most important private foundations in Europe. Its mission is to foster civil, cultural, and economic development in the communities it operates in, pursuing goals of public interest and social issues. It is active in scientific research, education, social policies, health, artistic heritage, and cultural activities.

10 *Statuto organico dell'Istituto delle Opere Pie di San Paolo in Torino (Beneficenza e credito),* Printed by Roux & Viarengo, Turin, 1901 (ASSP, II, ISPT-FC, Statuti e regolamenti, 26 & 29), approved by Royal Decree dated May the 26th 1901.

11 The "hospital issue" (we find this phrase in the minutes of the meeting of the Board of Directors) was widely debated from as early as the second half of the nineteenth century by the Hospital administrators and Piedmontese institutions, including *Istituto di San Paolo.* The issue arose from the constant rise in the population of Turin, from the increasingly frequent admittance of patients from other provinces and epidemics which brought to light the lack of beds in a by now inadequate facility.

12 Balbo I., Rugafiori P. 2013. *Al comando. I vertici dell'Istituto San Paolo,* in La Compagnia di San Paolo, in Barberis W., Cantaluppi A. (edited by), II. Turin: Einaudi. p. 66.

13 Robotti D., Inaudi S., *Carità, beneficenza, assistenza. L'azione sociale del San Paolo tra privato e pubblico (1853-1991), ibid.,* p. 384.

14 1913. *L'Istituto delle Opere Pie di S. Paolo in Torino nel 350° anno di sua esistenza.* Turin: Istituto delle Opere Pie di San Paolo. p. 73.

15 *Ibid.,* p. 75.

16 D'Amuri M. 2013. *Le case popolari,* in La Compagnia di San Paolo, in Barberis W., Cantaluppi A. (edited), II. Turin: Einaudi, p. 425.

17 *Ibid.,* p. 432.

18 This change in status was a consequence of the Italian government's policy at the time to regulate and consolidate the banking system following the global financial crisis of 1929. Becoming a public institution, *San Paolo* no longer operated as a private bank, but was subject to a specific regulatory framework that clearly defined its functions and responsibilities. As a public institution, it had to operate in accordance with specific laws and government directives.

19 The *Educatorio Duchessa Isabella* was built in 1893, commissioned by the *Opere Pie San Paolo,* intended as a school and boarding school for girls. During World War I it was used as a military hospital. When it was bombed in 1942 the section facing Piazza Bernini underwent minor destruction, unlike the section on Via Duchessa Jolanda, that was more damaged and was rebuilt in 1960s, as a school building. Since 2015 it is the headquarter of the *Fondazione Compagnia di San Paolo's* instrumental bodies.

20 https://archiviostorico.fondazione1563.it/

21 Lupano F. 2013. *Gli ospedali*, in La Compagnia di San Paolo, in Barberis W., Cantaluppi A. (edited by), II. Turin: Einaudi, p. 404 *'Molti ospedali a Torino hanno fruito del contributo del San Paolo per la loro fondazione, e in più casi l'Istituto ne ha poi seguito finanziariamente lo sviluppo successivo'.*

22 The Historia della Compagnia di San Paolo written by Emanuele Tesauro in 1657, describes the establishment of the *Ospedale di carità* in the last chapter. Tesauro E. 2003. *Historia della Venerabilissima Compagnia della Fede Catolica, sotto l'invocazione di San Paolo, nell'Augusta città di Torino,* modern edition commented and edited by Cantaluppi A. Turin: Compagnia di San Paolo, p. 276 ff.

23 Lupano F. 1999. *La Compagnia di San Paolo e il servizio sanitario per i poveri nella città di Torino. 1814-1851*. Turin: Compagnia di San Paolo.

24 *Ibid.,* p. 8. Subsequently the service was resumed by the local Town Hall.

25 Lupano, 2013, pp. 408-411.

26 Molinette is the new home of the former *San Giovanni Battista* Hospital, also known as *San Giovanni Vecchio*. This historical hospital, still located in the centre of Turin, was moved to the new Molinette complex in 1935, following a project to reorganise and modernise the city's healthcare facilities.

27 In 1930 engineers Eugenio Mollino and Michele Bongioanni started building the new main city hospital, along the city's south axis, quite close the to the Fiat Lingotto plant. The nickname Molinette (small mills) came from the mills once there, near the River Po.

28 Payment was in three yearly 500,000 tranches in 1926, 1927, and 1928.

29 Carlo and Emma Abegg, the children of Augusto Abegg, one of the main industrialists, founders of the Valle Susa cotton mill, donated ten million It Lire.

30 De Fort E., Musso S., Mana E. 2013. *I rapporti con il governo e con le istituzioni locali dall'Ottocento agli anni Ottanta del Novecento,* in La Compagnia di San Paolo, in Barberis W., Cantaluppi A. (edited by), II. Turin: Einaudi, p. 144 *'Si può dire che tutte le principali opere pubbliche realizzate – o messe in cantiere – dall'amministrazione comunale vedano il concorso dell'Istituto San Paolo: tra queste alcune di rilevanza culturale e strategica come la Galleria d'arte moderna, la Biblioteca civica, l'aeroporto di Caselle; la ricostruzione del Teatro Regio'.*

31 The Italian Risorgimento was a political and social movement that developed in the 19th century with the aim of unifying the various states and territories of the Italian peninsula into a single national state. The process culminated with the proclamation of the Kingdom of Italy in 1861, thanks to the action of historical figures such as Cavour, Garibaldi and Victor Emmanuel II, and marked the end of foreign domination and territorial fragmentation.

32 Italia '61 was a major international exhibition held in Turin from 1 May to 31 October 1961 to celebrate the centenary of the unification of Italy. The event highlighted the country's economic, cultural and social progress and attracted visitors from all over the world. The event took place in a specially designed exhibition area, with pavilions, exhibitions, cultural events and shows highlighting Italy's historical heritage and innovations. Italia '61 was an important opportunity to promote and relaunch Italy's image in the international context.

33 The 'Italia '61 Committee was a body set up to organise and coordinate the celebrations and activities associated with the International Exhibition held in Turin in 1961 to mark the centenary of the unification of Italy. The Committee, made up of institutional, cultural and business representatives, was responsible for planning, promoting and managing the various initiatives that marked the event.

34 Personal archive of the Turin journalist and art critic Angelo Dragone and of his wife Jolanda Conti, donated to the *Fondazione 1563,* the result of a life devoted to Piedmontese art and culture. It is an important private archive of modern and contemporary art. Angelo Dragone had also worked for the official publication of the exhibition, *La celebrazione del primo centenario dell'Unità d'Italia,* Turin, 1961 with an essay *Il piano della Mostra, le giornate regionali, i convegni,* p. 393.

35 Pier Luigi Nervi, Antonio Nervi, Mario Nervi with Gino Covre (Engineers).

36 Annibale Rigotti (Architect) Giorgio Rigotti, Franco Levi and Silvio Bizzarri (Engineers).

37 Erberto Carboni, Carlo Casati, Nello Renacco (Architects).

38 https://walks-of-change.fondazione1563.it/

39 Intesa Sanpaolo's opening of the Gallerie d'Italia in Turin, on the historic site of Piazza San Carlo, is an initiative of great public interest, as it not only enhances the city's artistic and cultural heritage, but also promotes access to culture and the enjoyment of works of art of national importance, thus helping to stimulate tourism and cultural dialogue between different generations.

40 Law 218/1990 introduced major reforms to the banking and finance industry in Italy, laying the foundations for the privatization of public & savings banks, turning the public law banks and the savings banks into joint stock companies. In 1991, following the introduction of the new law, the San Paolo underwent a major change, having a charity or not-for -profit institution named *Compagnia di San Paolo,* to homage its history, while its banking activities went to a new joint stock company called *Istituto bancario San Paolo di Torino Spa;* a third entity was also established, the *Gruppo bancario San Paolo Spa,* for the coordination, strategic guidelines and controlled companies wholly owned by the *Compagnia di San Paolo* to fulfil the traditionally statutory activities of public interest and social impact.

41 Since 2004 *Fondazione per l'Arte della Compagnia di San Paolo;* since 2011 *Fondazione 1563 per l'Arte e la Cultura della Compagnia di San Paolo.*

42 Luciano Jona was a prominent Italian entrepreneur and banker, best known for his leadership role at Intesa Sanpaolo. Born in Turin in 1947, Jona embarked on a career in banking that led him to hold senior positions in several financial institutions. His experience and strategic vision have contributed to the development and growth of the institution, in particular through the implementation of cultural and social initiatives. He is also known for his commitment to the promotion of art and culture in Italy.

How banks drive structural change

Christoph Speitkamp

Abstract

Today, companies and entire economic areas face the challenge of navigating the complex issues arising from various overlapping transformation processes, such as energy transformation, digitalisation or globalisation. In this context, the question arises as to what extent the banking industry can make a contribution to coping with this far-reaching structural change and whether banking history can serve as an inspiring source to generate the 'orientation knowledge' to evaluate current developments.[1] This analysis examines the case study of the Aachen region—a declining mining area that transformed into a thriving technology hub in the second half of the 20th century. It explores how financial institutions unfolded their 'building power' during these structural change processes. Sparkasse Aachen's 'Innovation Loan Programme' broke new ground in the 1980s. Through the programme, for the first time, the innovative potential of start-ups was accepted as valid as classical collateral. This new concept created an instrument through which promising start-ups were provided with the necessary founding capital. In 1988, the Innovation Loan Programme developed into the *Sparkassenbeteiligungsgesellschaft* (S-UBG)—the first investment company of a public-law financial institution in the Federal Republic of Germany.[2] All in all, the banking industry made a central contribution to the successful transformation of the Aachen region at the end of the 20th century. In line with its founding mission to benefit the regional economy and society, Sparkasse Aachen harnessed its innovative potential to address the crisis of the 1980s. The transformation of the Aachen region is one example of the active role banks can play in shaping economic, social or technological change and consequently the importance that should be given to studying cases in financial history. Structural transformations need the 'building power' of financial institutions and efficient innovation financing.[3]

Keywords

Structural change, transformation processes, structural crisis, technology transfer, innovation financing, knowledge creation, change management, Innovation Loan Programme, S-UBG.

Introduction

Today, companies are tasked with the challenge of managing the intricate issues that emerge from multiple intersecting transformation processes, including energy transition, digitalization and globalization. These structural changes will bring profound challenges for many regions and industries in the coming years.[4] The comprehensive establishment of a digital infrastructure, as well as the transition from an analogue to a digital business environment and the substitution of fossil fuels with renewable energy sources, will require significant efforts and resources. In view of these various upheavals, the question arises as to what extent the banking sector can contribute to the mastering of future transformation processes and whether the research discipline of banking history can serve as an inspiring source in this regard.

Of course, historical processes are never repeated one-to-one in the present, as the social, economic or technical environments are in a constant process of flux. Furthermore, the ongoing digitalization and the transition from analogue to digital systems, climate change and the establishment of green energy represent unprecedented phenomena in human history. However, a historical long-term analysis is essential for providing the orientation knowledge necessary to assess future developments. In the context of these complex and rapidly accelerating structural changes, there is a critical need for a transdisciplinary, systematic body of knowledge that elucidates the relevant cause-effect relationships inherent in transformation processes. The focus of interest is on factors that were of decisive relevance for past transformation processes and on the question of how these factors could also have a 'building effect' in the context of current and future processes of structural change. The following analysis is based on the realisation that banking history represents a living dialogue of the present with the past to master the future.[5] The 'building effects' of the banking sector concerning structural change processes will be examined with the help of a historical case study.

Job cuts at the 'Eschweiler Bergwerksverein'	
Year	**Number of employees**
1958	30.419
1965	23.605
1967	17.807
1968	16.073
1969	14.890

Halving the number of employees in only 11 years

1

Image 1. The downward trend in the number of employees of the Eschweiler Bergwerksverein in the years 1958-1969. (Koebe 1970)

"Banks build": using the example of the successful transformation of the Aachen region at the end of the 20th century

One of the most successfully managed and internationally recognised transformation processes within the Federal Republic of Germany at the end of the 20th century is the structural change of the Aachen region.[6] For centuries, the economic and social conditions in the Aachen region had been determined by a few economic sectors, mainly including the heavy industries, the needle and the textile industry.[7] At the end of World War II Aachen as a region was scarred by warfare with the degree of destruction of physical capital reaching up to 60%.[8] After the war, the previous economic structures were recreated and those industries that had guaranteed the prosperity of the Aachen region before the war were rebuilt. Consequently, the Aachen region once again stood out in traditional industries, such as the needle and textile sectors as well as heavy industries. Only a few years after the war, the Aachen region was rebuilt with the same economic structures that had prevailed for the previous centuries.[9]

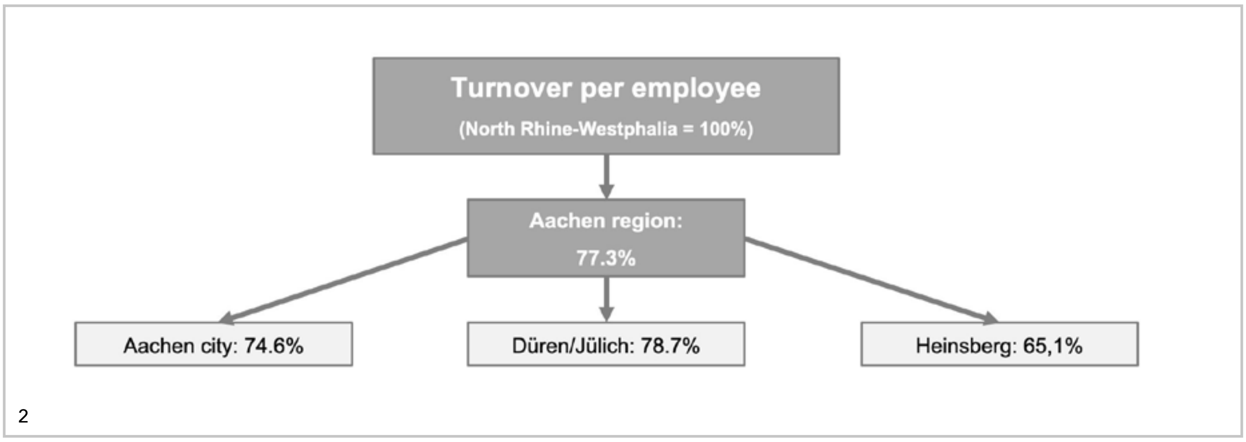
This trend of reconstructing the traditional industrial sectors continued in the years of economic boom that followed.[10] Due to both domestic and international stimuli, the German economy experienced unprecedented growth during the "Wirtschaftswunder" period. The USA aimed for a rapid reconstruction of Germany through the Marshall Plan and its integration into the Western alliance.[11] This approach was intended to protect the Federal Republic of Germany from communist influences emanating from the Soviet Union while simultaneously fostering its development into a robust trading partner for the USA.[12] Domestically, the system of "Social Market Economy" introduced by Economic Minister Ludwig Erhard facilitated the resurgence of the German economy as a liberal market order.[13]

Nevertheless, the traditional industries of the Aachen region began to show their first structural weaknesses in the early 1950s: The textile industry seemed to be the first victim of the globalisation and the liberalised markets and came under increasing pressure from competitors from low-wage countries.[14] There was a sharp rise in imports of foreign woollen fabrics to Germany from the 1950s onwards: While 3,900 tonnes of woollen fabrics were imported from abroad in 1952, this figure had already risen to 10,400 tonnes in 1954 and 14,656 tonnes in the year 1956.[15] Since foreign textile products increasingly conquered the German market, the German textile industry successively found itself in a competitive situation that threatened its existence.[16] In addition to the textile industry, the needle industry also had to contend with competitors from abroad and was thus forced to cut jobs and undertake corresponding rationalisation measures. The high labour intensity of the needle production and the general wage increases in Germany in those years meant that the needle factories in the Aachen area were successively unable to compete with rivals from low-wage countries on the world markets.[17]

The coal mining industry, another central pillar for the prosperity of the region, also fell into a profound structural crisis at the time, as German hard coal was increasingly substituted by oil and imported American coal.[18] This development severely affected the region, as every fifth employee depended on the fate of the coal industry.[19] "Eschweiler Bergwerksverein", the most important employer in the Aachen coalfield, illustrated the strained situation of the coal mining industry in the Aachen region as follows: The 'Eschweiler Bergwerksverein' laid off around 50% of its employees only in the period from 1958 to 1969, which is shown in Image 1.[20]

From the 1980s onwards, there were unmistakable signs of a profound structural crisis in the Aachen region, whose former economic engines increasingly began to stutter. Whereas the Aachen area had previously represented one of the economically strongest regions within West Germany, it was now conspicuous for its below average economic development. The Aachen region already had an unemployment rate of 7.3% in 1980, which was one of the highest unemployment rates in West Germany.[21] This above average unemployment remained in the Aachen region also in the following years: Accordingly, an unemployment rate of 12.6% was documented for 1982 – at the same time, the unemployment rate in North Rhine-Westphalia was only 8.7%.[22] In addition, parts of the region generated a gross domestic product that was about a third below the average of West Germany.[23] Besides, the turnover per employee within the area only reached approximately 77.3% of the North Rhine-Westphalian average. In some cities of the Aachen region, even lower values were noted, as shown in Image 2.[24]

This existential structural crisis formed the breeding ground for a fundamental change of the economic structures within the Aachen region. The future task was clearly outlined by the regional authorities, politicians and cities: compensating for the decline of the traditional industries through the creation of opportunities for companies in the tech- and creator sectors. The cornerstone of this regional economic renewal should be the transfer of knowledge and technology innovations between the local research institutions and the regional economy. This instrument of regional technology transfer intended not only to promote the innovative capacity of the existing companies, but also to stimulate the development of promising start-ups. It was aimed to build up a resilient mix of sectors that would be able to compensate for the unstoppable loss of the old industries and transform the emaciated sector structures into an innovative technology location.[25]



This theoretical concept of regional technology transfer had to be translated into practice by means of concrete approaches. The starting point for this process was represented by the cooperation agreement, which was concluded between the Aachen Chamber of Industry and Commerce, as the representative of the regional economy and the Rheinisch-Westfälische Technische Hochschule (RWTH) Aachen University in the year 1981. Within this cooperation agreement, a close partnership was established between the RWTH Aachen, founded in 1870 and always a leader in the field of natural and engineering sciences, and the regional economy. In this way, the existing companies gained appropriate access to the latest research findings and the know-how of the research institutions. In addition, promising start-ups were enabled, with the help of the university, to successfully translate their business ideas into new products and services. For example, the start-ups got (paid) access to the university's research facilities to further refine their technological product. Furthermore, the young entrepreneurs were given the opportunity to exchange ideas with the scientific employees of the institutes to optimise their product or processes.[26]

The so-called 'Aachen Technology Centre', the first of its kind in the Federal Republic of Germany, served as an incubator for this economic renewal of the whole region, whereby the centre came up with a new concept: Within the Technology Centre the start-ups were provided with cheap company premises and comprehensive business management advice (choosing the right corporate form, marketing, financing, etc.).[27] Moreover, the know-how of the RWTH Aachen University was used in the sense of a lively knowledge and technology transfer to support the start-ups. Accordingly, the Aachen Technology Centre assisted promising start-ups with wide-ranging support in the first years of their entrepreneurial independence, thus sustainably increasing the success of these young companies.[28] The Aachen region provided a lively start-up climate with innovative, promising young companies to compensate for the loss of the old industries.[29]

The regional banking industry as the foundation for the structural economic renewal of the Aachen region

In the run-up to the opening of the Aachen Technology Centre, the provision of start-up capital was indispensable for the success of these newly founded firms. Therefore, the regional banking industry was seen as a central player within this intended structural change and was integrated into the transformation process of the Aachen region from the very beginning. On the occasion of the opening of the Technology Centre Aachen on 1 June 1984, the Sparkasse Aachen initiated the so-called 'Innovation Loan Programme', which had a unique concept at the time: The Innovation Loan Programme provided young entrepreneurs with the necessary capital to realise their business idea in an unbureaucratic manner by accepting the innovative character and the potential success of the start-ups instead of conventional loan collateral. Only the level of innovation and the quality of the entrepreneurial idea were critical factors in securing the necessary capital. Thus, the Innovation Loan essentially resembled equity capital. The Innovation Loan Programme even waived reimbursement obligations if the funded enterprise should fail. Without insisting on real loan collateral, promising start-ups were provided with the necessary founding capital to realise their business ideas.[30]

The progressive nature of the Innovation Loan Programme is evident when considering that, during this period, investment start-ups and the concept of venture

Image 2. Turnover per employee within various cities of the Aachen region in the early 1980s (comparative figure: North Rhine-Westphalia = 100%) (Sättler et al. 1983).

capital were still viewed as speculative within the German banking industry. Therefore, innovative start-ups usually lacked the capital they needed to realise their business ideas. This applied in particular to start-ups from the high-tech sector, which usually require a disproportionately high start-up capital. The Innovation Loan Programme addressed the issue of insufficient equity capital for young start-ups, but it did so without being a typical business investment. Therefore, the Innovation Loan Programme of the Sparkasse Aachen was a complete novelty not only within the Aachen region, but also throughout Germany at that time.[31]

The success of this unique combination of the Aachen Technology Centre and the Innovation Loan Programme was not long in coming and surpassed all the expectations: Immediately after the Technology Centre Aachen went into operation; it became apparent that this concept would become a catalyst for the structural economic renewal of the whole region. When the Aachen Technology Centre opened on 1 June 1984, seven newly founded companies initially moved in, whereby this number of start-ups in the Technology Centre increased to 17 companies with a total of 70 employees within one year. In 1986, there were 20 companies with 100 employees in the centre, which meant that the centre had already reached its capacity limit just two years after its opening.[32]

The Aachen Technology Centre steadily expanded in the following years and became an effective instrument for the creation of new jobs in the Aachen region: In the period from 1984 to 1998 alone, the centre was responsible for the creation of 4,200 direct and indirect jobs: In 1998, the number of companies founded in the Technology Centre Aachen already amounted to 170 companies with a total of 1,700 direct employees. This number of new direct jobs was accompanied by the creation of 1,700 indirect jobs in the corresponding upstream or downstream stages of the value chain. In parallel, about 800 people were employed in one of the start-ups which were located in the Aachen Technology Centre during the year 1998.[33]

This success of the Technology Centre was based not only on its progressive concept, but also on the inclusion of the know-how of RWTH Aachen University and the support of the regional banking industry, which provided promising start-ups with the necessary start-up capital via the Innovation Loan Programme. At that time, the synergetic cooperation between the Technology Centre, the RWTH Aachen University and the Sparkasse Aachen was unique on a national level and made a significant contribution to sustainably renewing the economic structures in the Aachen region.[34]

Given the considerable success of the Aachen Technology Centre, it was only a matter of time before further technology and start-up centres were established in the region: Taking up the concept of the Aachen Technology Centre, the period from the late 1980s to the early 2000s saw the opening of various technology and start-up centres in the region. After the commissioning of the Aachen Technology Centre in 1984, twelve more centres followed, each with its own sectoral focus to avoid overlaps. In many cases, these centres were established in towns which were especially affected by the inexorable decline of the heavy industries, and which needed a catalyst for the renewal of their economic structures.[35]

The Sparkasse Aachen positioned itself as a central catalyst for the structural change in the (Aachen) area at the end of the 20th century.

The 'building power' of the various technology and start-up centres with regard to the transformation of the entire economic region of Aachen becomes clear from a glance at the number of new jobs: The technology and start-up centres claimed to have created around 8,000 to 10,000 new direct and indirect jobs in the Aachen region by the year 1998, while additionally 3,500 people were working in the centres at that time.[36]

In the coming years, the number of jobs generated by these centres increased even further: In 2006, the centres were responsible for the support of 1,024 start-ups with 28,500 employees. All in all, the alliance of the technology and start-up centres, coupled with the know-how of the local research institutes and combined with an effective innovation financing through the regional banking industry, formed the basis on which the Aachen region was able to transform itself into a leading technology location within two decades.[37]

Especially the Sparkasse Aachen positioned itself as a central catalyst for the structural change in the area at the end of the 20th century. Already in the early 1980s, the Sparkasse Aachen had taken on a pioneering role with the Innovation Loan Programme, whereby this spirit of the Aachen banking industry continued in the following years: In 1988, the Innovation Loan Programme became the *'S-Unternehmensbeteiligungsgesellschaft Wirtschaftsregion Aachen AG'* (S-UBG), which represented the first investment company of the public-law credit system within the Federal Republic of Germany.[38]

Analogous to the Innovation Loan Programme, the focus of the S-UBG was on the innovation potential of the newly founded firms. The S-UBG represented an effective instrument which made it possible to provide real equity capital for promising start-ups which sold shares to the S-UBG in return. In this way, financing gaps of start-ups, particularly in the high-tech sector could be bridged. The innovative financing model of the S-UBG found fertile ground in the Aachen region from the very beginning. The following figures illustrate the rapid expansion of the S-UBG's activities within just a few years: In 1988, the year of its foundation, the equity capital of the S-UBG amounted to DM 10 million, but just one year later it counted already DM 20 million. The dynamic investment activity of the S-UBG was also maintained in the 2000s: In 2008, the S-UBG had investments in 34 companies with a capital of € 39.4 million, whereby these 34 companies employed approximately 3,330 people.[39]

In summary, within the framework of the structural change of the Aachen region at the end of the 20th century, the substantial contribution of the regional banking industry has to be highlighted: Although the Sparkasse had accompanied socio-economic developments beforehand, it was especially the structural crisis of the Aachen region in the 1980s, in which the 'building power' (i.e. the regional business development) of Sparkasse stood out more clearly than ever before.[40] The Innovation Loan Programme laid the foundation for the success of the Aachen Technology Centre and other start-up centres. New models of corporate financing, such as the Innovation Loan Programme, made it possible to provide start-ups with the necessary founding capital. The later S-UBG developed the idea of the Innovation Loan Programme further by providing innovative start-ups with the equity capital they needed to realise their business idea. The success of numerous newly founded companies was based to a considerable extent on the innovative financing models of Sparkasse Aachen.[41]

The concept of technology and start-up centres, coupled with the financial support via the Innovation Loan Programme and the following S-UBG, created an environment in which the structural change within the Aachen region could succeed. Consequently, Sparkasse has established itself as a key player in regional financing for innovations in the Aachen area. Altogether, Sparkasse has facilitated the transformation of the Aachen region into a knowledge and technology hub, but its 'building power' will also be of essential importance in the context of the future structural change.[42] The historical case study has highlighted which significant role Sparkasse can play in addressing structural change processes through effective innovation financing. Today, Sparkasse can leverage this legacy by financing product and process innovations, thereby fostering the progress and prosperity of the regional economy.

Conclusion

Sparkasse has successfully influenced socio-economic structural change processes within the Aachen area, consistently driving innovation amongst the economic landscape. In this context, Sparkasse Aachen has established itself as a model of innovation. By adhering to its founding mission—to act in the best interest of the regional economy and the local population—it has repeatedly served as a stabilizing force, particularly during times of crisis.[43]

The innovative character inherent in the Sparkasse model became particularly relevant at the end of the 20th century, during the profound structural crisis in the Aachen region. At this time, existing economic structures were weakened, and leading industries experienced simultaneous declines. To compensate for this loss, new economic drivers were urgently needed. The aim was to stimulate prosperity through the promotion of innovative entrepreneurial activity. Therefore, Sparkasse Aachen introduced the Innovation Loan Programme in 1984. This financing instrument, unique in Germany at the time, provided emerging startups with the necessary founding capital: instead of relying on traditional collateral, the focus was solely on the innovative potential of the startup. As a result, a dynamic entrepreneurial environment emerged, establishing new and thriving economic sectors within the Aachen region.[44]

The S-UBG, which evolved from the Innovation Loan Program in 1988, continued along this innovative trajectory and emerged as the first investment company of the public-law lending system in Germany. The founding of the S-UBG marked a significant milestone in innovation financing, as equity participation in startups was generally discouraged in the German banking sector at that time. However, the S-UBG model made it possible to provide startups with genuine equity capital for the first time. Overall, Aachen's banking sector played a pioneering role in innovation financing across Germany at the end of the 20th century.[45]

The integration of visionary innovation financing provided by Sparkasse Aachen with the novel concept of technology and startup centres laid the groundwork for the revitalization of the weakened economic structures in the region.[46] Additionally, the contributions of regional knowledge creators were crucial for this transformation: By providing technological expertise, RWTH Aachen University and other research institutions facilitated vital knowledge transfer, enhancing the innovation potential of established companies and supporting the emergence of new startups. Ultimately, the collaboration among the banking industry, technology and startup centres, and regional research institutions effectively drove the structural change in the Aachen area.[47]

The regional banking sector has consistently demonstrated a creative impetus in the transformation processes of the Aachen region over the past several decades. Consequently, banks must be recognised as central players in addressing future structural changes. In light of the forthcoming structural changes triggered by digitalization and the energy transition, the 'building power' and innovative strength of the banking sector will once again be crucial for successfully managing these complex upheavals at the societal and economic levels.

Author

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The role of central and private issuance in colonialism

Gustav Peebles

Abstract
European powers traded various territories back and forth over many centuries– not only inside Europe itself, but also abroad. The central and private banks that issued currency in these many territories carry the traces of these imperial moments in their archives, but the wealth of these vast archives has not yet been fully tapped. Nevertheless, we do know that one of the first tasks of many colonial regimes was to dislodge existing units of economic value (Mwangi 2001), just as one of the first tasks of newly liberated postcolonial states was, tellingly, to issue a new national currency (Helleiner 2003). Considering the extensive infrastructure work accomplished by most colonial regimes, in what ways did nascent banks in distant territories lend a hand? In what ways did they tap into ties with the metropole country, and in what ways might they have even competed with metropole banks to finance lucrative governmental projects (as Algeria's "central" bank did, well before independence). Firstly, this paper will introduce a recently completed 2-year Mellon Foundation-funded broader collaborative project entitled "Currency & Empire," which aimed to encourage more and more researchers to delve into banking archives. Secondly, it will briefly offer three examples from the Currency & Empire project that exemplify the important role that banks have played in infrastructure buildouts in colonial spaces.

Keywords
Currency, Empire, Banks, Colonialism, Monetary Policy, Private Issuance, Archives, Britain.

Part I

The scholarship concerning the nationalization of money is fairly well known. Helleiner (2003) sums up the broad strokes of the story, while many other researchers have outlined specific histories, whether that would be the USA, United Kingdom, Argentina, Canada, Sweden, France, or many other locations. In general, what Helleiner calls "monetary heterogeneity" predominated the era prior to the 19th century. While there had been national central banks in several instances, these same banks had not yet consolidated a monopoly on currency issuance. Instead, a plethora of private currencies typically circulated in national spaces.

Intriguingly, so diverse was this private issuance that private currencies often traversed national borders with no additional exchange fees or other transaction costs that might exist within the country. For example, the "Malmö Diskont" circulated in Denmark, even though it was issued in Sweden, while several American bank currencies were found in Canada (Ersgård 1977; Mihm 2009). In other words, the trust placed in the currency did not emanate from a nation-state, but from people's perceptions concerning the trustworthiness of the private bank (Pressnell 1956). Further, these currencies were then not necessarily deeply integrated into a nationally regulated banking system.

As the nation-state system evolved in the 19th century, this monetary heterogeneity became increasingly unappealing to governments; citizens also clamored for more regulation, as various privately issued currencies were swept up in frenzies, with the classic bank runs that resulted. Consequently, monetary homogeneity became the order of the day. Importantly, monetary homogeneity *inside* nation-state borders was purchased at the cost of new transaction costs *across* nation-state borders.

Another element of this story is the way in which currencies, as vital elements in daily life, gradually became part of state-infrastructure. That is, for various reasons and following popular ideas of the time, it became "obvious" that currencies should be governed by states rather than left to the private sector, just as private toll roads often gave way to public highways. Since then, obviously a great deal of evolution has occurred, placing national currency systems in somewhat unique light compared to policy standards within state-infrastructure. In his recent book, *Unelected Power,* Tucker (a retired central banker himself) frames national currency systems as sitting in a unique place within governments, oddly straddling the Commons and public goods (Tucker 2018: 59; see also Peebles 2023).

In the 20th century, this story then becomes relatively well known in the era of decolonization. Though the scholarship is not vast, it is not unheard of. We can trace the almost "overnight" evolution of new state currencies, as new nations blossomed out of decolonization. These new countries often kept bureaucrats and regulations from the previous regime, aiming for as much stability as possible. Still, even during these times of transition, the old colonial currency was kicked to the curb.

Clearly, we are accustomed to the role of currency in the building of nation-states, whether in moments of consolidation, or in moments of decolonization. But there seems to be relatively little interest in what obviously jumps out as a third pillar in this scheme— colonization itself. For these reasons, it was thrilling for our Mellon-funded group to discover the collective efforts happening inside the *eabh* network, which had also initiated a workshop dedicated to "archival evidence in and about financial institutions' 'building' roles: the connections between banking and building, finance, cities, and the emergence of countries or states."

In fact, the role of currencies in the consolidation of territory stands as a sort of implicit knowledge, typically considered obvious and thus perhaps uninteresting. For example, the current Ukraine invasion clearly testifies to the ways that banks and currencies can be operationalised in critical ways for a conquering regime (see Tass Russian News Agency 2022; Ukrainska Pravda 2022). We are somehow all dimly aware that the millions of people who have suddenly found themselves living on Russian-occupied Ukrainian territory must have stopped using hryvnias and started using roubles. But the complex—yet humdrum— banking operations that must have occurred that allowed for all those Ukrainian deposits to swap over to Russian deposits is not, to my knowledge, something that many people (scholars or otherwise) have expressed much of an interest in. Aside from shifting individual deposit accounts, what happens to the reserves in these moments? What did the Russians do with the hryvnias in all the accounts? Did the local legislature change the banking laws overnight, or did it happen gradually? What were citizens told about their accounts? Do local bankers get rapidly trained in Russian banking law?

I encountered another example of recent "colonial" banking when I served as an outside reviewer for a book manuscript that is being written by Nishita Trisal, at Harvard. She spent a year as an ethnographic researcher at Kashmir and Jammu Bank, in India. From that text, I learned that many locals perceive India as a hostile, "settler colonial" state. Apparently, citizens of Kashmir often make political decisions about where to keep their money, in attempts to not support the Indian state's agenda in Kashmir. And yet, because their deposits are governed by Indian banking regulators and indexed in rupees, this native population— if it is to bank— must bank through what they view as an Indian colonial system (Trisal n.d.).

These two quick examples offer present-day vistas on a topic that goes back centuries. The conceit of our Currency & Empire project, funded for a preliminary 2-year period, is that countless stories like these are hidden in vast and largely untapped archives. More precisely, we believe that many researchers of colonialism have not yet recognised that central and private bank archives are a massive resource, hiding in plain sight. The study of colonialism has barely scratched the surface of this story, which could transform some of the crucial ways in which they frame the history of colonialism itself.

For starters, often central bank archives are relatively open to the public. What would researchers find if they dug deeply into the Portuguese central bank's archive? Would they discover not only minutes that showed differential treatment of Angola and Brazil, but also evidence of mundane transactions that sent (or extracted) resources to (and from) the colonies? We already know, from the British case, that monetary theorists of the British Empire selectively imposed bi-metalism on some colonies and not on others, mapping it onto colonial taxonomies that distinguished "Oriental" subjects in India from white settler colonists in Canada, Australia, and South Africa (de Cecco 1974; Balachandran 1996; Rosenberg 2003; Singha 2018). It almost goes without saying that all of the well-known European empires would have exciting material to mine in this vein, whether we wanted to learn more about monetary policy in France's New Caledonia or Spanish planning in Bolivia. Beyond the central bank archives, there are also exciting possibilities for researchers of colonialism to more thoroughly dig through *private* bank archives. If all these efforts could be approached in a deeply collaborative spirit, we could then see if general principles can be drawn from all the highly particular studies.

Monetary policy and banking practices are neither "obvious" nor "scientific" technocratic operations. Rather, we find political and cultural battles every step of the way.

Part II

In this regard, our collaborative efforts on the Currency & Empire project have resulted in some preliminary studies, presented at our final workshop in Fall 2022. I will here summarise some examples from those studies; I will then close the paper with some of the general principles we drew from that work, and how we might be able to move it forward after the close of our first phase of funding.

While we worked hard to find a diversity of imperial examples during our year-long visitors' series (see currencyandempire.org, where we have these sessions recorded), our final workshop was dominated by people who researched the wide-ranging (in both time and space) British Empire. Despite this, the British Empire spanned broadly enough that we can attempt to draw some preliminary conclusions for today; additionally, the presentations from our visitors' series affirmed these general ideas for other imperial orders.

We begin with a very early colonial endeavor– English colonialism in Ireland in the first half of the 18th century. Dr. Mara Caden, of the University of Chicago, offered a paper on a massive debate surrounding "Wood's Half Pence." Proclaiming a lack of circulating coin in the Irish colony, the English sold a royal patent to an iron master named William Wood, who would thereby gain the right to mint copper money and ship it for use in Ireland. This immense privilege to foist currency onto a foreign population, famously chronicled by none other than Jonathan Swift, caused an uproar in Ireland.

Though well known, Caden insists that a mystery remains in the battle against "Wood's Halfpence." Why, she asks, was there such easy unanimity in the Irish population? Ireland, a legendary space of internecine battles, feudalist tensions, and warring religions, nevertheless all came together in fiercely opposing this English intervention in its monetary affairs. Merchants and consumers simply boycotted its use, refusing to accept it as payment nor use it for taxes. In the face of such opposition, England finally relented by removing Wood's patent and reimbursing him for his losses.

Aside from clearly revealing a moment of monetary heterogeneity and private issuance, Caden digs into the monetary archives and finds locals hoping to seize power over monetary management of their own territory. Indeed, this episode triggers the first discussions of a local, Irish, mint, to achieve a sort of monetary independence from their colonial masters. To make her claims, Caden also takes on the well-known theory of Gresham's Law, which argues that "bad money drives out good"; in other words, when two currencies circulate in a given jurisdiction, the one with the higher intrinsic value will disappear into private hoards, while the one with the lower intrinsic value will continue to circulate. Caden calls this axiom from monetary history into question, stating that the fate of Wood's Halfpence is better understood through the lens of class struggle. That is, even though Wood's Halfpennies were manifestly "bad money," the refusal of people to accept it meant that they would continue to prefer silver coinage for circulation. Whether we agree with Caden's findings argument concerning Gresham's law or not, by tackling it in this paper, she is crucially helping us to develop a common language across disciplines, wherein historians feel more comfortable arguing with economists over such things that are typically the preserve of the latter.

From Ireland, we move on to Britain's most famous colony, India, the "jewel in the crown." In her contribution to our final workshop, a PhD candidate at the University of Toronto, Ms. Shweta Banerjee, offers us a fascinating window into the monetary governance of three separate mints, all operating during the nascent period of "Company rule," viz., the period when the East India Company governed India with a charter from the UK government (Banerjee n.d.).

Banerjee's paper shows a gradual migration of currency management, moving out of the hands of the imperial Mughal system and into the British one. As such, she guides us through the way the desire to control the monetary medium can map onto programs of territorial conquest. By working through a series of Royal Mint archives, Banerjee even manages to show a transitionary phase, when the power to mint money transitions through the Indian bazaar, via its well-known network of moneychangers known as "shroffs."

This transitionary phase then opens up her interesting argument that "power abhors a vacuum." That is, as the Mughal empire's power wanes but the East India Company's has yet to be fully consolidated, private entities rush into the lost imperial currency space. Old Mughal mints find new purchase via "mint-farming" (much like Ironmaster Wood's patent, above) on behalf of fragmented new sovereignties emerging at the time. She argues that these mints become spaces of shared jurisdiction, between shroffs and local rulers. She portrays a scene where shroffs need the patent, but rulers need the shroffs' vaunted monetary expertise and their financial backing.

She uses the Benares mint to show how, around the year 1800, the East India Company begins to push its way into both territorial and monetary management, explaining that the exchequer office was "one of the first to be designated in the new military cantonment area". But despite these bureaucratic inroads, in practice, the EIC's fiscal power continued to rest on the shroffs' vast networks and coin production. For a time. But she then uses a court case to show how the EIC sought to delegitimise the shroffs' power by casting aspersions on the quality of their coins. Gradually, we learn that the Benares mint, in the face of attacks such as these, as well as new surveillance tactics, becomes forcibly nested within the Calcutta mint's growing supervisory role on behalf of the "Company-State." As with Caden's deployment of Gresham's Law, Banerjee nimbly opens up much of her discussion by dissecting how battles over seigniorage income plays out over multiple decades in India.

Veering away from stereotypical banking archives, I will close with an example from the late colonial period. Dr. Kevin Donovan, an anthropologist at the University of Edinburgh, discovered a remarkably fruitful archive at Barclays Bank. In the 1950s, Barclays had built a network of banks across rural Kenya, Uganda, and Tanganyika, whose task it was to finance farmers and an emergent wave of budding commercial opportunities (Donovan n.d.).

Donovan found that managers at the district level were sent on "banking safaris," wherein senior management from London, Nairobi, Dar es Salaam, and Kampala were sent to this "banking archipelago" to "anxiously assess how the branch management was getting on." While on their journeys, they were expected to keep a diary, which Donovan claims was "something of a merger between business record and travel memoir." He mines these archives to elucidate all of the social labor that undergirded colonial banking.

Not least, we learn of the work occurring both on the golf course and in host manager's domestic setting. In this particular regard, Donovan highlights the gendered labor that was part and parcel of a British bank posting to the colonies. The wives of these branch managers were expected to have a "frontier fortitude" that allowed them to keep domestic strife at bay while families confronted the likely culture shock that attended such postings. Additionally, banking relations with the white farming class in Kenya was a particularly important space for wives' subtle interventions. Donovan finds that their ability to ingratiate themselves with white settler wives was instrumental to the bank's balance sheet, helping smooth over any tensions with farmers that might emerge, while also serving as a cultural anchor to given settler outposts.

Donovan's study also touches upon the racial hierarchies that become obvious in these diaries. Traveling bank managers were expected to analyze the bank's deployment of its capital to the local Asian merchant class, while also monitoring the nascent African class of bank workers. Not least, one banker even turned to social events as "sites of surveillance and judgment." This example, and others showing petty enforcement of colonial racial hierarchies, gradually give way in Donovan's account to the growing demand, as decolonization gathers steam, for the Africanization of the banking labor force.

Conclusion

From these three examples, spanning more or less the beginning, middle, and twilight of the British Empire, we can see how monetary policy and banking practices are neither "obvious" nor "scientific" technocratic operations. Rather, we find political and cultural battles every step of the way. It makes sense that the management of money— a massively consequential tool for organizing social and economic life— would open up a world of conflict and strife.[1]

And yet, perhaps because of the long-standing goal to achieve "sound money," economists have typically played down these more political and cultural dimensions of monetary management. In fact, conventional economic theory often affords little attention

1 The Mellon Sawyer Seminar assembled many scholars from around the world. Our core work group consisted of myself (Co-PI; Stockholm University), Emma Park (Co-PI; The New School), Aaron Jakes (University of Chicago), Sanjay Reddy (The New School), and Paulo dos Santos (The New School). Having spent three years working together intensively on this project, the ideas outlined in this conclusion have been arrived at in collaboration with them.

Conventional economic theory often affords little attention to the realities of sovereignty and differential power involved in monetary management.

to the realities of sovereignty and differential power involved in monetary management. At the same time, the rich bodies of both historical and theoretical scholarship on empire have tended to underplay the centrality of monetary relations in the constitution of imperial dominance and colonial subordination (cf. Ahamed 2009; Einhorn 2006; Goswami 2004).

This bifurcation has been augmented by the conceptual separation between the economic and the political that, for too long, has served as a foundational premise for disciplinary divisions within the humanities and social sciences. This divide, we argue, has translated—despite an actual history of practical entanglement—into an apparent gap between the study of money and the study of empire (Wood 1981). Notwithstanding some important and exciting exceptions, the concept of empire is only thinly applied within economics today, while monetary debates are rarely central to the vast study of empire undertaken by scholars from other disciplines.

Our collaborative research project thus attempted to bridge these gaps, taking it as axiomatic that monetary functioning and management have long been integral to the constitution of both "formal" and "informal" empires. To do so, our project sought to transcend conventional disciplinary boundaries by bringing together the research and divergent methodologies concerning (among other things): the managerial practices and discourses of monetary systems; the archive of colonial and neo-colonial monetary institutions; the social conventions that underpin monetary systems; the history of economic thought about money and empire; and contemporary critical perspectives in monetary theory. In so doing, we hope that an array of ongoing case studies will examine specific national, regional, and global monetary systems.

But beyond adding the study of money to the study of empire, we believe it can be a two-way street. We contend that monetary policy ferment—new ideas about the organization and control of money in society—has often emerged out of the crises provoked by the vicissitudes of empire. From our own research, we know that these debates were not only influential, but they often reverberated across historical periods, reproducing a spectrum of monetary thought that can be usefully related to contemporary analogues.

The present moment is rife with examples of such monetary policy ferment: e.g., debates around the sustainability of common currencies like the Euro and the CFA franc; the impact on developing countries of demands for self-insurance through reserve currency accumulation; the effects on their asset markets of quantitative easing; the reconstruction of the international monetary system into a more multipolar form; the uneven impact of new digital monies and monetary technologies. These, among many other issues, raise powerful echoes of the colonial past. A deeper engagement with the historical contours and dynamics of such debates will help us better understand and approach the contested stakes of policy proposals in the present.

Author
Gustav Peebles serves as *Universitetslektor* in the Department of Social Anthropology at Stockholm University. His research has long focused on the history and debates over monetary policy. Currently, he is delving into the Swedish Central Bank's potential interest in introducing a national digital currency, the e-krona.

Monetary policy ferment—new ideas about the organization and control of money in society—has often emerged out of the crises provoked by the vicissitudes of empire.

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