Surviving Under Uncertain Macroeconomic Conditions: Analysis of Industrial Formation and Development in Argentina, 1904-1930

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Abstract

Why were high concentration and low investment levels common characteristics in Argentine industry from 1904-1930? This paper examines Argentine industry at the firm level to analyze how manufacturing developed under four macroeconomic conditions of volatile cycles, low levels of long-term finance capital, expensive imported machinery, and limited market size. I argue that these four factors led Argentine manufacturers to develop survival and rent-seeking strategies to decrease their risk of bankruptcy, increase profits (ie. income), and increase their market shares. Although all fifty-nine firms under study attempted these strategies, not all are successful. The most successful firms enjoyed substantial tariff protection, grew larger by way of mergers and acquisitions, increased their equity capital, and attracted finance capital even during downturns. I use data from fifty-nine companies across ten manufacturing activities. Data collected came from firms’ directorial and performance reports, income statements, and balance sheets from 1904 to 1930.

1. Industry in a Rich Country?

Argentina was one of the richest nations in the world in the early twentieth century. In 1919, Argentine businessman, Carlos Tornquist wrote, “[Argentina’s] social, political, and economic organization will make it, within a few years, one of the powerful nations of the Earth.”¹ Argentina was prosperous both in terms of per capita gross domestic product and national wealth.² By 1921, 

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Argentina’s financial institutions held 73 percent of South America’s gold.³ By 1926, the nation accounted for 50 percent of South America’s foreign trade and 43 percent of railroad track.⁴ Argentine aggregate GDP grew at an annual average rate of 5 percent and real GDP per capita grew 3.9 percent annually between 1875 and 1912.⁵ In the late nineteenth and early twentieth centuries, Argentina’s wealth could be attributed to the export receipts of its agricultural and pastoral products. Argentina’s export rate grew 6.1 percent annually between 1850 and 1912 due to the continued expansion of the quantity and quality of exports.⁶ Wealth from the agro-export sector laid the foundation for Argentina’s economic development, which entailed the growth of capital markets, infrastructure, industry, European immigration, and population (nearly 3 percent between 1850 and 1912).⁷

As a relatively wealthy country, Argentina seemingly had all the prerequisites to develop and sustain industrialization including the most dense railroad network in Latin America, an integrated consumer market, industrial financiers, high levels of urbanization, and a relatively active stock exchange. Nevertheless, Argentina’s industrial sector failed to become a driving force of the economy and could not sustain itself. Although Argentina’s economy was expanding rapidly in the late nineteenth and early twentieth centuries, this growth was volatile and unpredictable. Cortés Conde posited that the Argentine economy had regular intervals of spurt growth and downturns before 1930.⁸ These turbulent cycles adversely affected Argentina’s newly developing economy and industries. During downturns, three characteristics in the manufacturing sector were increased bankruptcies, capital flight, and capital shortages, which limited the number of manufacturers.

2. Problems of Argentine Industrialization

The scholarly literature of Argentina’s economic history theorized that the unfulfilled promise of Argentine industrialization could be attributed to its high levels of industrial concentration and to limited long-term industrial investment in the late nineteenth and early

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⁷ Anuario Argentina (1941)
⁸ Roberto Cortés Conde, La economía Argentina en el largo plazo (Buenos Aires: Universidad de San Andrés, 1997).
Argentine manufacturing was characterized with big leading companies with capital-intensive technology and large market shares coexisting alongside many small and medium-size family enterprises, which were largely labor-intensive shops. This pattern persisted through most of the twentieth century however this paper focuses on industry from 1904 to 1930. Concentration developed and continued through 1930 because of three reasons. First, a large number of manufacturing companies declared bankruptcy and dissolved during downturns, which reduced the number of firms. Second, Argentine manufacturers depended on imported machinery and advanced technologies, which were expensive. These high costs were a barrier to entry that limited the number of new entrants. Lastly, manufacturers produced only for the domestic market and did not export their products. The domestic market was relatively small—under 12 million—before 1930. Thus, a few large-scale firms had the capacity to fulfill domestic demand because most imported machinery had large capacities intended for markets with populations numbering in the tens of millions.

Scholars also argued that low levels of long-term investment hurt Argentina’s industrial development. Banking systems were not set up to provide long-term loans to manufacturers. Manufacturing was considered a risky business and in most cases, most owners were fortunate if they could obtain a short-term loan to be repaid within six months. Moreover, these loans had to be supported with collateral. In most cases, only the very largest firms had valuable collateral that the bank could use as loan collateral. Argentine scholars blamed the lack of long-term investment on the entrepreneurs. Ferrer argued that Argentina’s entrepreneurs preferred to invest in the agricultural export sector and invested little in developing other economic sectors. Jorge Sábato argued that Argentine entrepreneurs quickly shifted assets from one sector to another to avoid concentration in only one type of activity and from having their capital trapped in any one investment. Generally, investors in Argentina moved their capital if short-term conditions were

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10 Jorge Katz, Structural Reforms, Productivity, and Technological Change in Latin America (Santiago: CEPAL, UN, 2001).
11 Haber (1989).
12 Ferrer, La economía Argentina (1963).
adverse and had diverse investment portfolios. Although this was relatively smart investment practice, it led to low levels of needed long-term investment in industry.

Why were high concentration and low investment levels common characteristics in Argentine industry? This paper examines Argentine industry at the firm level to analyze how manufacturing developed under these four macroeconomic conditions of volatile cycles, low levels of long-term industrial investment, expensive imported machinery and technology, and limited market size. I argue that these four factors led Argentine manufacturers to develop survival strategies and directly unproductive profit-seeking activities (rent-seeking) to decrease their risk of bankruptcy, increase profits (ie. income), and ultimately, increase their market power to control output and prices. Directly unproductive profit-seeking activities (rent-seeking) are when companies undertake activities that are directly unproductive; that is, my companies under study yielded returns but supracompetitive profits were not a direct cause from increased goods and services. Instead, income is made from tariff-seeking lobbying, premium-seeking for import licenses and patent licenses. These activities have political legitimacy, but are directly unproductive from an economic viewpoint. My companies under study also developed survival strategies. The five most common survival strategies among my fifty-nine companies under study were short-term policies undertaken to best survive prolonged recessions. These five strategies were usually performed during downturns. These were using money from reserve funds to cover or pad losses, building large levels of equity, paying out dividends during downturns, taking on debt through sale of bonds, and merging or acquiring competitors.

Although all fifty-nine firms under study attempted survival and rent seeking strategies, not all are successful. The most successful firms enjoyed substantial tariff protection, grew larger by way of mergers and acquisitions, increased their equity capital through the sale of preferred shares, and attracted finance capital even during downturns. I use data from fifty-nine companies across ten manufacturing activities. Data collected came from firms’ directorial and performance reports, income statements, and balance sheets from 1904 to 1930.

More specifically, this paper will answer the following questions:

- How do macroeconomic conditions affect industry at the firm level?
- How do owners’ survival strategies and profit-seeking activities affect Argentina’s industrial sector?

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How profitable were Argentine manufacturing firms, and how were returns distributed?

What do the size, distribution, and reinvestment patterns of manufacturing profits affect strategies and reveal both about these fifty-nine companies and the structure and development of Argentine manufacturing?

The remainder of this paper is organized as follows. Section 3 discusses my hypothesis and related literature. Section 4 describes the data and methods used in this paper. The results and analysis are presented and discussed in Section 5. Section 6 discusses the case study of the Argentine metallurgy sector. Section 7 concludes.

3. Hypothesis and Related Literature

I theorize that a key to surviving and eventually dominating a respective manufacturing activity required that Argentine companies create survival strategies and undertake unproductive profit-seeking activities to increase their firms’ size (reserves and equity), profits, and investors’ confidence. Nearly each industry under study had one firm that successfully achieved these strategies and came to dominate their respective sector. High concentration persisted because a dominant firm could push out or merge with rivals and fulfill market demand.

In developing my hypothesis, I draw on previous scholarship that generally analyzes industrial development and also on literature that uses companies’ financial statements to examine the processes of industrialization.16 Most general studies of industrialization focus on examining the canon studies of the United States and Europe. These models are usually not appropriate for studying the industrial phases in Latin American countries, and relate the latter to the role of “backward” developer. Current studies of Latin American industrialization compare Latin America’s industrial processes to the United States or to East Asia, particularly to Korea in the 1950s, in seeking answers as to why Latin American industry failed and what should have been done to push industrialization.17

15 Ibid.
17 For example, see Linsu Kim and Richard R. Nelson, Technology, Learning, and Innovation: Experiences of Newly Industrializing Economies (Cambridge: Cambridge University Press, 2000).
My work contributes to the study of industrialization in Argentina in two ways. First, most previous studies used macro approaches to analyze Argentine industry. However, my work explores Argentina’s forestalled industrialization at the firm level. This paper uses firms’ reports, financial statements, and profit histories. Very little is known about the patterns of profitability for individual firms and industries in general. I collected annual reports and financial statements from fifty-nine manufacturing companies across ten manufacturing activities to examine how Argentine industry formed and theorize as to why it failed to develop into an efficient and competitive sector.

Second, studies frequently examined Argentine industry on the focus of what should have been. My work however focuses on identifying and analyzing the patterns of Argentina’s industrial development under imperfect market conditions. I use both firm-level quantitative and qualitative information. I use qualitative data to identify companies’ strategies and follow the outcomes. I utilize quantitative data to both confirm qualitative information and to calculate firms’ successes and failures by way of estimating ratios of profits, debt to equity, and liquidity. I employed cost-accounting methods to estimate these three ratios. I also use dividend and stock quote information.

Previous studies that utilized firm level information provided theoretical background and suggested methods to be used in this paper. This paper draws largely on two works, Haber (1989) and Levenstein (1998). In his study of Mexican manufacturing, Haber employed firm level data to micro-analyze manufacturing profits and conditions such as oligopoly production, low capacity utilization, and the inability to compete in export markets. The lessons learned by analyzing individual Mexican firms could be applied to better understand industrial underdevelopment in Latin American countries. Levenstein examines the creation of the Dow Chemical Company’s information systems between 1890 and 1914. She stresses the importance of companies’ financial statements and suggests methods for examining firms’ choices and general processes through the use of these financial statements.

4. Description of Data and Methods

The principal source for this paper’s findings comes from a newly created data set. Data was gathered from 795 balance sheets and income statements belonging to fifty-nine manufacturing firms from 1904 to 1930. Information from these financial statements was assembled to calculate profits, debt to equity, and liquidity ratios. These fifty-nine manufacturing firms represent ten

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18 Ferrer (1963), Ricardo Ortiz…, Díaz Alejandro (1971), Fernando Rocchi.. .
19 Liquidity ratios are calculated as liquid assets (cash and reserves) divided by deposits (paid in equity).
manufacturing activities. These are: (1) burlap sack, (2) cement, (3) matches, (4) tobacco, (5) glass, (6) breweries, (7) paper, (8) soap and glycerin, (9) metallurgy, and (10) textiles. Metallurgy included two sub-categories. The first sub-category is for medium- to large-scale foundries and the second is for the handicraft producers in machine and blacksmith shops. These textiles comprised two categories: these were cotton and wool textiles and canvas shoes and textiles.

Financial statements are particularly valuable due to their extensive collection of information. I collected data on physical and working capital, short and long-term debt, owner’s equity, sales, costs, retained earnings, profit, and loss. The number of annual balances in my possession varies from three to twenty-seven years per company. The variation is in part due to some companies going bankrupt after only a few years in business. I have less than five years of financial statements for three companies. These three companies are the cement manufacturer Cemento Argentina, the match firm Unión Fósforos Cooperativa, and the metallurgy company Unión Herradores. I included these companies because part of the goal of this paper is to compare the performance of both failed and successful companies.

The general balance sheet presented two columns, one for assets and the other for liabilities. The assets side of the balance sheet reports fixed assets, cash on hand, checks, money in banks, value of output, investments and inventories, raw materials, accounts receivable, and equity investments in other companies. Accounts receivable includes any credits due to the company by a debtor. This category includes common debtors, mortgage debtors, and bond subscriptions. The liabilities side of the balance sheet shows all money that the company owes to third parties. These debts include accounts and notes payable, other payables, mortgages, short and long-term loans, unpaid dividends, directorial remuneration, employee compensations, bonds, and current costs like taxes, rents, interests, and depreciation. The various payables are composed of both short- and long-term maturity.

The balance sheets of the fifty-nine firms demonstrated a slight range in accounting practices before 1923. An accounting practices and standards law was passed in 1923 to create a uniform format of financial statements for all joint-stock companies. Before then accounting headings slightly differed between companies. Nevertheless, all companies reported basic categories such as capital stock, debt, equity, inventories, cash, profits, other income, costs, and sales.

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20 Haber (1989)
21 These handicraft metallurgy shops were known as herrerías.
I used the 1923 accounting law to reorganize all balance sheets and income statements between 1904 and 1923 to create uniform accounting categories. I excluded categories like “value of the benefits of foreign correspondence,” “consignment merchandise,” “bailment,” and *pro forma* accounts in the assessment of profits. This was done because directors arbitrarily measured the value of foreign correspondence, and consignment and bailment categories did not always realize into real values. Consignment and bailment goods must be purchased or rented before the company sees any income from them. Some firms sold on consignment at discount simply to sell their large inventories. The category of *pro forma* accounts was not capital that could be used for the current needs of the company. Instead the purposes of the *pro forma* accounts were to provide information about all assets and liabilities including that not directly owned by the company. *Pro forma* was reported on both the assets and liabilities side of the balance sheet. Some items under this heading were the value of third party goods and the guaranteed stock deposit of the directors, which was not money held directly by companies. The Inspección General de Justicia (IGJ) was the Argentine ministry that regulated corporations. In 1923, IGJ mandated that companies separate the monetary value associated with the *pro forma* heading from the value of all other “real” assets and liabilities on the accounting form. IGJ preferred that the *pro forma* value be treated as money held, but not used by or for the company. The income statement also had two columns, one for costs and the other for all earned income.

I also used qualitative primary sources to support or explain findings from the financial statements. These qualitative data came from companies’ histories and records, annual stockholder’s meeting minutes, and annual directorial reports from 1890 to 1930. Another important source was companies’ output reports to determine capacity utilization. Some of these sources were available in the published finance journals of the time. These serial journals were *Boletín oficial de la república Argentina* (BORA) 1910-1931, *Monitor de sociedades anónimas* (MSA) 1904-1931, *Anuario Pillado* 1898-1900, *Anuario Kraft* 1895-1930, and the *Boletín oficial de la Bolsa de Comercio de Buenos

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23 Ibid.
24 The value of the guaranteed stock of directors varied between companies. Generally, directors were expected to contribute the monetary amount equivalent to 100 to 1,000 company shares. This was money that belonged to individual directors and not directly owned by the company.
26 Ibid.
Aires (BOBCBA) 1899-1930. These journals were available in Argentina at the Biblioteca Tornquist and Biblioteca Nacional.

BOR-A published balance sheets and income statements beginning in 1910. BOBCBA began publishing balance sheets and income reports in 1904. Both published company accounting sheets through 1930. The “Memorias del directorio” or annual directorial reports were mostly located in the stock exchange journal, Boletín oficial de la Bolsa de Comercio de Buenos Aires beginning in the 1910s. I also located individual publications of the “Memorias” as well as companies’ histories and records in numerous non-serial publications beginning in 1898 at the Biblioteca Tornquist. These annual director’s reports provided information on firms’ annual activities and performance, end-of-the-year profits, sales, expected earnings, and discussed how Argentina’s macro economy affected their companies. Synopses of the annual stockholder’s meeting minutes were published in the Monitor de sociedades anónimas beginning in 1904. These synopses provided the results of directorial elections and discussed the distribution of profits. This information made it possible to follow how directors distributed their companies’ profits.

**Cost-Accounting Methods**

Profits can be measured in a number of ways. I employed cost-accounting methods to calculate two measures of profitability to accommodate for biases encountered in using only one estimate of profitability. The first estimate is return on stockholder’s equity (ROE), which is net income divided by stockholder’s equity. Argentine manufacturers reported net income as the sum of all gross income (Y) minus reported costs of operation, raw material costs, and money held for reserves. Gross income was all money that came in from sales, holdover income held from previous years, interests from other investments, and money from rents and interests. Owner’s equity is the sum of paid-in capital and reserves. Both equity and reserves are located on the liabilities side of the balance sheet. In this calculation, I subtract companies’ reported costs from gross income and also, subtract holdover income held from previous years. I do this because holdover income has already been calculated into profits in previous years. Thus, I do this to avoid double-counting of income. It is also done this way to focus on companies’ current earnings for better assessment of current annual performance.

1. Return on stockholder’s equity (ROE) =

\[
\frac{\text{Net Income}}{(Y - \text{Holdover Income}) - \text{Costs}}
\]
Equity = (Paid-In Capital + Reserves)

The second calculation is return on physical capital (ROK), which is net income divided by physical capital (K). ROK is the economic return on the physical capital invested in the firm. Physical capital is located on the assets side of the balance sheet. It is the sum of the depreciated value of all fixed properties such as buildings, factories, machinery and installations, accessories, furniture, vehicles, raw materials, work animals, and tools. It also includes the current value of land, cash and foreign currency on hand, and all other negotiable currency. These are all included on the assets side of the balance sheet.

Working capital such as inventories and accounts receivable are excluded from the calculations of ROK. Argentine manufacturing companies typically had large amounts of working capital that varied widely each year. Including working capital would have inflated the assets side and undermined profit ratios. Moreover, working capital was an unstable value. For instance, companies sold their working capital at discount or wrote it off as a loss or debt whenever the values of inventories or account receivables became too large.  

(2) Return on physical capital (ROK) =

\[
\frac{\text{Net Income}}{\text{Physical Capital}} = \frac{(Y - \text{Holdover Income}) - \text{Costs}}{K}
\]

In the following third and fourth calculations, I adjusted the “costs” side of the income statement because many manufacturers withheld income to place in reserves and labeled this as “costs.” Companies’ goal was to deflate current profits and shift them to a later period when the need for them was greater. Profits that were held for reserves were not truly a cost in the sense that the money was needed to cover expenses in a current financial year. The money was not being used for current needs, but for contingent liabilities, future depreciation costs, future projects, and possible bad debts. Most commonly, money was held to “smooth” the often-unpredictable peaks and downturns to demonstrate the illusion of smooth and upwardly growth. Many times, companies appeared to be doing well during downturns, but were tapping into reserves. Eventually some of these companies went into bankruptcy when reserves run out. By removing retained earnings from the costs side and placing them back to the income side where they truly belong, this adjustment should permit more accurate profit ratios. In these third and fourth calculations, profit ratios are calculated in the following ways.

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27 If written off as debt, it was reported on the liabilities side of the accounting balance sheet. If written off as loss, it was reported on costs side of the income statement.
(3) Adjusted ROE =
\[
\frac{(Y - \text{Costs}) - \text{Holdover Income} + \text{Cash withheld for reserves}}{\text{Paid in Capital + Reserves}}
\]

(4) Adjusted ROK =
\[
\frac{(Y - \text{Costs}) - \text{Holdover Income} + \text{Cash withheld for reserves}}{K}
\]

I also calculated leverage, which is a coefficient estimating debt divided by equity.\textsuperscript{28}

Normally, the debt to equity ratio is estimated using only long-term debt. However, I included both short- and long-term debts in the numerator to get a sense of all liabilities owed by the company. Moreover, long-term debt (contract for more than one year) was not a common form of debt among Argentine manufacturers. The sale of bonds for example was typically a short-term investment to be paid within one year. Generally, Argentine companies with collateral could take on short-term loans from banks, but loans were to be repaid within six months. However, if entrepreneurs had a close relationship with the banker, it was possible to extend repayment or renew a short-term loan so that an official short-term debt could in theory become a long-term loan under special circumstances.

Generally, if a company takes on debt, it is assumed that it does so to improve and expand its capital stock or organization. Nevertheless, a highly leveraged company, or one that carries substantial debt and little equity, could indicate poor money management and that the company is a risky investment. It is considered a risk because if, and when, there is an economic downturn, the company could fail and investors lose their investment.

On the other hand, a company with absolutely no long-term debt could indicate that the company is highly profitable, and using only net earnings to finance its growth and development.\textsuperscript{29} However, if the company is not especially profitable, it implies that managers do not finance through debt nor have profits to invest in new technologies and organization. This latter situation is also not considered a desirable investment.

(5) Debt to equity ratios:
\[
\frac{\text{Short-term debt + Long-term debt}}{\text{Paid-in Capital + Reserves}}
\]

\textsuperscript{28} Equity is calculated as the sum of paid-in capital and reserves. Debts are current liabilities or short-term debt like accounts payable, notes payable, salaries, income and taxes payable, and long-term liabilities like bonds, mortgages, and bank loans.

\textsuperscript{29} Technically, all firms have at least short-term debt such as accounts payable, wages payable, etc.
Another ratio calculated in this paper is firms’ liquidity, which is liquid assets divided by deposits. Typically, banks perform this ratio and I applied it to my manufacturing companies under study. I determined reserves as liquid assets since most firms under study were utilizing reserves as liquidity. I used paid-in capital as deposits since this is money that is deposited and paid for by the investors and cannot be quickly liquidated.

(6) Liquidity Ratio:

\[
\frac{\text{Cash (Assets side)} + \text{Reserves (Liabilities side)}}{\text{Paid-in Capital}}
\]

All real monetary values are calculated using the whole price index developed by Nakamura and Zarazaga.\(^{30}\) The Argentine whole price index is a proxy for consumer price index. A reliable consumer price index for Argentina from 1904 to 1930 is not yet available.

5. Results

Size of Profits

How large were profits? Table 1 shows average profits per industry and Table 2 shows average profits per company in each industry. In both tables, all industrial sectors under study except textiles and paper enjoyed an average of double-digit rates from 1904 to 1930 (Tables 1 and 2). The paper and textiles industries were the exception to double-digit rates of return. These two industries made an average between -0.01 and 4 percent return on stockholder’s equity from 1904 to 1930. In the textiles industry, profits were lower than expected partly due to low demand for domestic cloth and larger foreign and domestic competition before 1930. In the textiles industry, there were many new entrants, but only a few had long-term operating histories. There were fewer cost barriers to entry in textile manufacturing because entrants could import spindles and looms on a small scale or buy used machinery from abroad.\(^{31}\) Nevertheless, Argentina’s textiles were of poorer quality than imported textile goods. In 1911, for example, the textile company Compañía Textil SudAmericana\(^{32}\) created its own production methods, but failed to produce a product that was both inexpensive and high quality. The company had its own patent, manufactured its own looms,


\(^{31}\) Haber (1989); Anuario Argentina (1941).

\(^{32}\) This was a smaller-scale and short-lived textiles company. Not to be confused with the giant international corporation, Textil SudAmericana, S.A.
spindles, and other machinery to produce cotton-like cloth and yarn using abundant Buenos Aires province-grown fibers. The owners wanted to use local fibers to replace the use of cotton that was costly because it had to be imported from abroad or transported across land from the interior provinces of Argentina. Although the cotton-like cloth produced by Textil Sudamericana was of somewhat acceptable quality, the new material was coarse and expensive to produce. Textil Sudamericana was in the red for most of its eleven years in business and filed for bankruptcy in 1921. Even with some tariff protection, the company’s prices were still too high and the quality too low to effectively compete with imported cotton cloth and yarn from England. British manufacturers produced higher quality cotton cloths and more cheaply than Argentine producers. In 1912 alone, 90 million pesos of textiles products were imported from England.

The paper industry might have had low profits due to diseconomies. Most firms failed to operate their capital-intensive machinery to full capacity, and therefore experienced higher per unit costs. As early as 1898, the paper factory, Argentina Fábrica de Papel was the only large-scale paper manufacturer and possessed nearly 100 percent of the newsprint market. However, it produced well under capacity. In 1898, it had the capacity to produce 50,000 kilograms newsprint per day, but only utilized two percent of their capacity; they produced 1,000 kilograms of newsprint per day.

Although not every manufacturing firm under study enjoyed on average double-digit profits, manufacturing companies generally had returns that were on average higher than government and domestic bank yields. Government bonds yielded on average between 4.5 and 6 percent from 1900 to 1920. Domestic bank bonds yielded between 2 and 6 percent from 1914 to 1917. Manufacturing dividends to stockholders were also typically higher than those offered by domestic banks. Manufacturers paid out between 6 and 40 percent to stockholders during a prosperous period from 1921 and 1923. On the other hand, banks paid out between 6 and 10 percent during

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33 “Compañía Textil Sudamericana, MSA (1911).
34 Compañía Textil Sudamericana, Balance sheet and income statements, BORA.
35 “Bankruptcy” Compañía Textil Sudamericana, MSA (1922).
38 Finanzas, comercio e industria en la República Argentina de 1898 (Buenos Aires: Imprenta “Roma” de Juan Carbone, 1898), p. 126.
40 Some of these banks were the Banco El Hogar Argentino, Banco de Galicia y Buenos Aires, and Banco Popular Argentino. “Informaciones” MSA volume 21 (1916), 126-127; “Informaciones” MSA volume 22 (1916), p. 39, “Informaciones” MSA (1917).
41 Based on cross-section of companies under study between 1921-23. These were Cía Gral de Fosforos, Cristalerias Rigolleau, Fosforera Argentina, Cía Gral de Envases, Cristalerias Papini, El Eje, Ferrum, Cerveceria Rio Segundo, Cerveceria Palermo, Introductora, Piccardo, Elaboración Gral del Plomo, and Campomar y Souls. Less stable
the same period.\textsuperscript{42} High dividend payouts and average double-digit manufacturing returns could indicate that managers responded to investors’ wants and developed keen abilities to increase stockholder’s return to the value of their investment. However, the fifty-nine companies under study were some of the largest firms in Argentine industry. They had oligopoly control because they had few competitors with the abilities to produce goods on an equal scale. Profits could be large due to these firms’ abilities to control output and prices.

Although oligopoly control played a role in obtaining high returns, there were four other reasons why companies reaped double-digit profits. First, the results from yield on capital stock (ROK) could simply be misleading due to the reporting practices of depreciation in that time. Companies depreciated their physical capital on a less than regular basis. The depreciation value is the initial value of the item less the portion representing services of the asset already utilized. In several cases, firms depreciated all at once in a single year. This would make profits appear lower in previous years then suddenly large in the year that the firm depreciated all at once. In 1923 the Argentina Inspección General de Justicia set minimum accounting standards for depreciation.\textsuperscript{43} These depreciation codes required that companies depreciate annually and regularly. Nonetheless, after 1923, not all firms depreciated annually. Instead, they placed annual earned income in reserves for future depreciation costs. Therefore, firms depreciated in a less than consistent manner. Moreover, some firms reported an extremely low value for physical capital. Their claim was that after depreciation costs, physical capital had lost its value. This would make return on capital stock appear very large. Generally, tables 1 and 2 demonstrate that return on capital stock is usually higher than return on owner’s equity. This was because manufacturers also allowed their physical capital to depreciate while failing to improve or buy new assets on a regular basis. After several years physical capital would be reported at a low depreciated value. Thereby making profits appear larger.

\textsuperscript{42} Based on data from banks that reported paying out dividends. These banks include Banco Escolar Argentina, Banco el Hogar Propio, Banco Popular Argentino, Banco de Italia y Río de la Plata, Nuevo Banco Italiano, Banco de Galicia y Buenos Aires. Monthly data reported in “Cronica de asambleas” \textit{MSA} (1921-1923).

\textsuperscript{43} The minimum depreciation cost of furniture, fixtures, work animals, and vehicles was ten percent annually over the initial value, and ten percent annually over acquisitions made during the financial year. The minimum depreciation cost of machines was five percent annually over the initial value. Installations, tools, and materials were to depreciate at a rate of twenty percent per annum over the initial value, or in five segments so that within five years, the value of these will be zero. “Interpretación del formulario de balances para las sociedades anónimas,” \textit{Guía de Sociedades Anónimas}, 1928-1929 (1929).
The second reason why profits appeared high could be due to protective tariffs. Congress was politically motivated to pass tariffs for specific activities between 1904 and 1930. Tariffs were intended to help local industries develop by raising prices imported manufactured goods. These imported goods were often efficiently produced elsewhere and potentially less expensive to consumers.

Protection however increased domestic prices and in turn increased returns. Firms in industries enjoying high protective tariffs, such as the match and burlap sack manufacturers, had very healthy returns. For example, in 1905 the tariff for wax matches was 60 percent over the prices of imported wax matches. The burlap sack industry seemed to enjoy some of the largest returns. The Argentine government imposed a 40 percent custom duty over the price of imported burlap sacks and highly regulated the annual amounts of agricultural goods and sacks to be produced each year. These measures kept burlap sack prices artificially high. In 1913, two burlap sack companies enjoyed high returns. Primitiva had 41 percent return on owner’s equity and Salinas enjoyed 37 percent return on equity. These companies reaped super normal profits from 1918 to 1919 whereby due to both a brief economic boom and government protection, these two burlap sack companies enjoyed nearly triple-digit profits.

Third, large profits could be due to directors’ manipulation of account reporting. They could, for instance, adjust accounting values on the balance sheet to hide losses and high debt. In the 1918-1919 accounting sheet for example, owners of the match company, Compañía General de Fósforos changed the method of reporting the value of its land from historical cost to current cost. The current value of its land increased the assets side of the balance sheet by nearly 11 million Argentine pesos between 1918 and 1919. In this case, Compañía General de Fósforos had changed its reporting methods because it had to balance the two sides of the balance sheet. In actuality the company had increased its debt and accrued larger values of reserves, which were revealed on the liabilities side of the balance sheet. As the debt was paid off, the owners began

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44 Actas de Congreso (1904-1932); Peter H. Smith (1971).
45 Tarifas de Aduana, fosforos, 1905; The Economist (1905) claimed that tariffs for wax matches were as high as 350 percent!
47 Primitiva and Salinas, Balance sheet and income statement (1913).
48 Primitiva and Salinas, Balance sheet and income statement.
49 This change appears as a note on the accounting sheet. The historical cost is the initial value of which the fixed assets were valued when they were first purchased. This value may not be indicative of the amount for which the asset could be sold or of its ultimate worth to the party owning or using it. Current cost is a replacement cost or the amount that would have to be paid to obtain the same asset or its equivalent.
depreciating assets at a faster rate so that in the early 1920s, profits appeared much larger. Between 1904 and 1930, ROK estimated that Cia General de Fósforos’ average returns were 35.7 percent. Nevertheless, ROE was also estimated and showed that on average the rate of return was 18.4 percent between 1904 and 1930. This second estimation helped to balance some of Compañía General’s less than consistent accounting practices.

Lastly, it could be that manufacturing profits were genuinely high because companies could not operate successfully unless they had high returns. Companies needed high profits to cover their initial capital costs, pay dividends to investors, create reserve funds, remunerate themselves, and finance mergers. Operating costs were likely high because although the corporations under study had purchased machinery that would have permitted lower per unit costs, most firms never took their machines to full productive capacity. Many companies simply turned off machines and became burdened with higher per unit costs. This increases the costs of production and could reduce profits. Moreover, despite firms’ double-digit profit rates, annual income seemed to be insufficient to provide for capital investment as most Argentine companies under study had relatively high debt to equity ratios. These ratios were high relative to Mexican companies in the early twentieth century.\textsuperscript{51} Mexican companies had debt to equity ratios that were less than 20 percent of owner’s equity.\textsuperscript{52} However, in Argentina the most successful companies had average debt to equity ratios from 39 to 56 percent of owner’s equity between 1904 and 1930.\textsuperscript{53} This suggests profits were insufficient to cover all of the companies’ needs, which created the need to finance through debt.

\textit{Profits and Volatile Business Cycles}

Although profits could be high during upturns, there could be substantial and consecutive losses during recessions. Tables 1 and 2 failed to show one of the most important features of Argentine firms. All firms had volatile returns and suffered at some level from the sharp variations in the Argentine economy. Argentina had volatile market cycles due to its vulnerability to unstable world markets.\textsuperscript{54} This volatility affected the investment environment. Generally, investors in

\textsuperscript{50} “Compañía General de Fósforos,” Balance sheet, 1918-1919.
\textsuperscript{51} Ratios were compared with Mexican companies’ relatively low debt to equity ratios. Debt is measured as all short and long-term debts. Stephen H. Haber, \textit{Industry and Underdevelopment: The Industrialization of Mexico, 1890-1940} (Stanford: Stanford University Press, 1989).
\textsuperscript{52} Ibid.
\textsuperscript{53} Pineda, Debt to Equity ratios (June 2002).
\textsuperscript{54} O’Connell argues that by the late 1920s a clear pattern of economic fluctuations had become well established and perceived in Argentina. Arturo O’Connell, “Argentina into the Depression: Problems of an Open Economy,” in
Argentina characteristically moved their capital quickly, particularly if short-term conditions were adverse. Investors had diverse investment portfolios and preferred not to hold capital in any one fixed, large investment. Although investors provided a crucial source of initial funding for Argentina’s large-scale, modern industry, they wanted the flexibility to move their capital into more profitable sectors. They typically diversified their holdings to limit damage caused by failure in any one investment. Sábato argued that Argentine entrepreneurs shifted assets from one sector to another to avoid concentration in just one type of activity and from having their capital trapped in any one investment. Similarly, British investors from the Bank of London and South America avoided locking up capital in any one fixed investment as this was considered imprudent investment practice. The tendency of domestic and foreign investors to have short-term and diverse speculations was important for their survival in unpredictable markets.

During Argentina’s economic upturns, domestic companies enjoyed higher returns due to general prosperity and higher prices. Owners of large-scale production methods enjoyed lower per unit costs than handicraft shops due to their advanced technologies. During upturns, corporations did not lower prices despite lower per unit costs. This allowed them to make large profits. There was no real competition to large-scale firms, small-scale artisan shops could not effectively compete. Handicraft enterprises were labor-intensive and lacked capital-intensive methods to compete with their larger competitors. Argentine consumers likely preferred to buy corporations’ goods because they were attracted to slightly cheaper prices. In 1899 for example, the journal Boletín Industrial attributed Fábrica Argentina de Alpargatas’ capture of 30 percent of the alpargatas market to their lower prices. Although Fábrica Argentina de Alpargatas’ prices were below its small-scale


Boletín Industrial (1900). Alpargatas are canvas shoes with rubber bottoms.
competitors, they were still high enough so that the company enjoyed 16 percent return on equity in 1899.\footnote{Equity in only this case referred to paid-in capital. Ricardo Pillado, Anuario Pillado de la deuda pública y sociedades anónimas establecidas en las repúblicas Argentina y del Uruguay para 1899-1900 (Buenos Aires: Imprenta de “La Nación,” Compañía Sud-Americana de Billetes de Banco, 1900), p. 345.}

Economic upturns were tempered by periods of recession. Between 1889 and 1930, Argentina’s economy suffered six critical downturns: 1889-90, 1907-08, 1914-17, 1919-20, 1924-26, and 1929-30.\footnote{Critical periods in the economy were determined from annual directorial reports. Also, Cortés Conde, (1997) and David Rock, Argentina: From Colonization to Alfonsín (1987).} These down cycles were characterized as periods of uncertainty when it was unknown if, when, and to what degree the economic situation would recover or get worse.\footnote{Ibid.} During prolonged recessions, consumption decreased and the government typically reduced import tariffs to reduce prices and increase consumption. Most large-scale companies could reduce their prices and best able to survive recessions because they had machinery that reduced per unit costs. To compensate for lower prices and profit margins, these large-scale firms increased sales volume by expanding output that flooded markets with their goods. In 1929 for example, the owners of Fábrica Argentina de Alpargatas reported how they had increased sales volume by 30 percent.\footnote{“Fábrica Argentina de Alpargatas,” Directorial report, BOBCBA (1929).}

However, returns failed to increase by the same percentage and had only reached levels of the previous fiscal year. During recessions, prices might drop even further if foreign goods—attracted by reduced tariffs--glutted the market and sold below cost.\footnote{Dumping is the practice of selling goods from abroad below cost or at a price below that charge in domestic market to eliminate surplus.} In the 1929-30 recession for example, the directors of the metallurgy company, Ferrum lowered their prices to compete with “cheap” imports and attract more domestic buyers.\footnote{“Ferrum” BOBCBA, Directorial report (January 20, 1930), p. 174.} Their goals were to increase the volume of sales and maintain last year’s profit levels.\footnote{Ibid.} In 1929, imported goods sold below cost and forced Ferrum to sell their goods at the same prices or lower than imported products to attract consumers.\footnote{“Ferrum” BOBCBA, Directorial Report (January 20, 1930), p. 174-5.} Similarly, directors of Fábrica Argentina de Alpargatas reported increasing levels of sales in 1929, however, prices were so low that their profits were declining.\footnote{“Fábrica Argentina de Alpargatas” BOBCBA, Directorial Report, (April 7, 1930), p. 919.}
Typically, downturns resulted in a large number of bankruptcies (Figure 1). Companies failed for numerous reasons however, they largely went bankrupt because they suffered from capital shortages from being relatively too indebted and lacking sufficient reserves. In published bankruptcy reports, owners attributed their bankruptcies to their inability to raise capital or to their general shortages of equity capital during downturns. They generally ran short on reserves because their funds went toward covering basic operating and maintenance costs as well as paying debts. Some owners claimed that costs were so high that they ran out of reserves before they could use them to absorb losses to protect their companies.

**Distribution of Profits**

Where did profits go? Using companies’ financial statements, I examined the distribution of profits and find that significant portions of annual net income were used in short-term investments such as in reserves. Three factors aiding companies’ long-term business success was the size of profits during prosperous periods, amounts devoted to reserves, and owners’ capabilities to draw on accumulated reserves during downturns. The ideal characteristic of a survivor company would be to have both high levels of paid-in equity and cash reserves. These could certainly save companies from the fate of bankruptcy during recessions. Large numbers of bankruptcies by manufacturing firms during downturns were quite typical.

Table 2 shows the average annual rate of returns of each of the fifty-nine Argentine firms between 1904 and 1930. In this table, the first two columns labeled “(1)” and “(2),” net income is less than in columns “(3)” and “(4).” In Columns “3” and “4”, I adjusted the “costs” side of the income statement because many manufacturers withheld income to build reserves. Profits that were held were not truly a cost in the sense that the money was needed to cover expenses in a current financial year. Most commonly, money was held to “smooth” the often-unpredictable peaks and downturns to demonstrate the illusion of smooth and upwardly growth. Many times, companies appeared to be doing well during downturns, but were tapping into reserves. By removing retained...

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69 Several serial publications listed bankruptcies, the MSA reported general figures. The finance journals, Cronista Comercial and Avisador mercantil reported company names and amounts lost in bankruptcy. Both of these sources could be located at the Biblioteca Tornquist.

70 Declarations known as “retirement of status” were published bankruptcy statements that gave the company the opportunity to declare the events and processes that led to the bankruptcy.

71 “Indice Estadístico de las convocatorias, quiebras, concursos, civiles y arreglos desde el primero de enero al 30 de septiembre,” 1920-1940, Cronista Comercial.
earnings from the costs side and placing them back to the income side where they truly belong, this adjustment should permit more accurate profit ratios.\textsuperscript{72}

Owners anticipated economic downturns and tried having large amounts of cash in reserves. Although the Argentine commercial code only required that the cash amount in reserves should be 10 percent of shareholder’s equity, most manufacturers held cash reserves that accounted between 30 and 50 percent of owner’s equity.\textsuperscript{73} Accumulated annual earnings in reserve funds were used for numerous purposes: to invest in public bonds, finance expansion or improvement projects, remunerate the directors, shareholders, and employees, and allowances.\textsuperscript{74} Allowances or valuation reserves were to cover basic costs such as depreciation, bad debtors, to reduce accounts receivable, and other provisions created by charges to the profit and loss statement.\textsuperscript{75} Argentine manufacturers also used reserves as liquid assets and spent the money where they deemed necessary. During a downturn, directors had the voting power to cancel projects and quickly avert reserves toward concealing or cushioning losses. For example, in 1929 the owners of the metallurgy company Cantábrica decided to transfer reserves originally intended for improvement projects toward creating a “cushion” reserve fund in anticipation of economic downturn.\textsuperscript{76}

Manufacturers paid out less in dividends to shareholders and retained some of the profits to build large reserves. In 1910 for example the directors of Fosforera Argentina could have paid out 18 percent dividend payment to their ordinary shareholders.\textsuperscript{77} Instead they paid out 12 percent dividend and retained 6 percent in reserves.\textsuperscript{78} Owners considered these reserves important to their company’s survival. New firms such as those of Hilanderías Argentinas de Algodón placed all of the

\textsuperscript{72} See Section 2, Data and Methods

\textsuperscript{73} The Argentine Commercial Code declared that a reserve fund shall be formed by at least two percent of realized net profits each year until such fund amounted to a minimum of ten percent of the capital stock of the company. However, Argentine companies had reserves in amounts well above the basic requirements. Argentine Commercial Code of 1889, Article 369 (1889).

\textsuperscript{74} A general outline for distribution of profits was: five percent to a reserve fund, ten percent to contingent liability fund, ten percent to the directorial board, two percent to the auditors, and the remainder would be distributed to shareholders. However, these percentages depended on a firm’s bylaws. Ministerio de Justicia, Inspección General de Justicia. \textit{Nueva fórmula obligatoria para balances de sociedades anónimas, nacionales y extranjeras. Decreto aprobatorio del Ministerio de Justicia e Instrucción Pública. Edición especial del Monitor de sociedades anónimas y patentes de invención.} (Buenos Aires: Imprenta y casa editora “Coni,” 1925).

\textsuperscript{75} Annual retained earnings might also be placed in what was known as a hidden reserve fund, represented by understatements of annual income. Hidden reserves were stated in the accountant’s notes at the end of the balance sheet, or listed as costs instead of income in the income statement.

\textsuperscript{76} Cantábrica, BOBCBA (1929).

\textsuperscript{77} Fosforera Argentina, MSA (1910).

\textsuperscript{78} Ibid.
firm’s first annual earnings into reserves. These owners wanted to quickly provide the company with reserves in anticipation of downturns. Generally, the top managers had substantial control of their firms as they were the owners, sat on the firms’ directorial boards, and were major stockholders in the enterprise they managed. This permitted owners the ability to wield strategies to build reserves and potentially save their companies from bankruptcy.

The successful companies under study used their reserves in two ways during downturns. First, owners used income from reserves to conceal any low profits. Second, they continued paying stockholders’ dividends. These two factors were key to attracting and maintaining investors. In the late and early twentieth centuries, investors had other investment opportunities, such as government or bank bonds, which provided relatively stable returns. Thus, company owners needed to provide investors with the confidence that their investment would be secure. It was a common characteristics of successful firms to maintain large and numerous reserve funds—hidden or reported in the balance sheet—to protect themselves during bad business cycles. Compañía General de Fósforos for example, reported consistent profits that averaged to the same amounts each year from 1918 to 1919, from 1921 to 1922, and between 1926 and 1929. In all other years, Compañía General de Fósforos reported similar amounts so that the company’s earnings appeared steady from 1918 to 1929. All companies were subject to volatile economic cycles. However, successful companies were well adept at using reserves to maintain the appearance of stable performance to provide investors with a sense of stability.

In contrast, companies that failed typically had difficulties surviving a prolonged recession. Small-scale companies in particular depended on reserves as cash assets because it was difficult for them to raise capital through debt during downturns. They eliminated paying out dividends during downturns. For example, in maintaining an adequate level of reserves, in 1924 the glass company Cristalerías Papini placed all profit income from that year into the reserves and failed to make dividend payments. As the recession continued, in 1925, Papini closed two branch factories in Avellaneda and Rosario to reduce costs. The income from the sale of these two properties was

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79 In this case, Chueco is suing the company for his share of two percent of annual profits for serving as auditor for one year. He claimed that since the all profits were designated to reserve funds, he received no compensation for his services. Manuel Chueco versus Hilanderías Argentinas de Algodón, 1906, M.E.A (Volume 7, 1909), pp. 126-129.
80 Profit and loss statements reported the profit $2,220,000 m/n for 1918-1919; $3,150,000 m/n for 1921-1922, and $3,058,823.53 m/n for 1926-1929. Balance sheets and income statements, 1918 to 1929, Compañía General de Fósforos, BOBCBA.
81 Cristalerías Papini,” Directorial report, BOBCBA (June 8, 1925), p. 1082.
placed into reserves.\textsuperscript{83} Despite Papini’s efforts to maintain adequate levels of reserves, these were still insufficient. In 1929 Papini employed these reserves to cover the loss of $183,070 Argentine paper pesos.\textsuperscript{84} In only one year of losses, the company depleted its entire reserve income.\textsuperscript{85} Thereafter Papini was particularly vulnerable to downturns. Moreover, by not paying dividends, Papini shook investor’s confidence. Investors began pulling out their investment from Papini, which further exacerbated Papini’s equity problems.

Some failed companies reported that reserves were always insufficient because their annual earned income went toward covering basic start up and operation costs. Manufacturing companies suffered when critical periods were prolonged extending two or more years. During the end of the 1907-1908 recession, the match company, Compañía General de Fósforos reported sustaining profit levels by reducing prices and speeding up and increasing production. One of its competitors, the match firm Unión Fósforos could not sustain such low prices and went bankrupt in 1911.\textsuperscript{86} Unión Fósforos’ reported having high material and operation costs due to expensive equipment. Higher profits were needed for the company to pay costs and have cash in the form of reserves. Unión Fósforos blamed its failure on not being able to afford all the equipment needed to speed up production processes and therefore increase output and effectively compete with its rivals.\textsuperscript{87}

If reserves were insufficient during prolonged recessions then firms needed to find other financing. The most successful companies were the large-scale companies that successfully raised capital and financed mergers during economic downturns. They obtained financing through the sale of bonds and possibly a bank loan. Firms also increased their paid-in capital by offering preferred shares and guaranteeing a fixed dividend. For example, during an economic downturn in 1921 for example, owners of the metallurgy company, Talleres Metalúrgicos, used their paid-in capital to first pay off long-term debt of nearly three million Argentine paper pesos and used reserves to cover that year’s losses of over 570 thousand Argentine paper pesos.\textsuperscript{88} They also raised the amount of equity capital from 2.9 million paper pesos in 1920 to 6.6 million paper pesos by the end of 1921.\textsuperscript{89} They did this by offering preferred shares with guaranteed dividends. Similarly, owners of the tobacco firm Piccardo also increased the level of their firm’s equity during a recession.

\textsuperscript{84} Cristalerías Papini, “Directorial report,” \textit{BOBCBA} (1930) and Financial statement (1929).
\textsuperscript{85} Cristalerías Papini, “Directorial report,” \textit{BOBCBA} (1930) and Financial statement (1929).
\textsuperscript{86} Unión Fósforos, “Tribunales comerciales,” AGN Manuscript (1912).
\textsuperscript{87} Ibid.
\textsuperscript{88} Ibid.
\textsuperscript{89} Talleres Metalúrgicos, “Special stockholder’s meeting report and revised company bylaws,” \textit{MSA} (1921-1922).
from 1914 to 1917. Piccardo’s paid-in capital increased from 7.5 million in 1914 to 45.5 million by 1920. They were able to do this in both cases by using their large reserves and offering preferred shares to issue equity shares, pay off debt, and cover losses. They attracted investors by guaranteeing relatively high annual dividends for preferred stockholders—between 5 and 7.5 percent.

The most successful, large-scale firms became even bigger when they financed mergers. Mergers allowed these firms to rapidly consolidate physical assets, equity, and investors’ capital. The ultimate goal was to maintain or increase profits by capturing larger market shares. Successful companies turned to limiting all competition by acquiring them, which resulted in increasing their firms’ size and decreasing the number of potential large-scale competitors. Companies did both vertical and horizontal mergers, which offered several opportunities for the companies’ survival because it increased their market power and ability to restrain output and increase prices. By the 1920s, mergers between rivals were quite common as companies attempted to merge resources to survive recessions. For instance, between 1923 and 1926, owners of the metallurgy company, Talleres Metalúrgicos, negotiated the merger of five of the largest metallurgy firms in Argentina at that time.

Similarly, beginning in 1910, manufacturers of the successful paper company, Argentina Fábrica de papel, acquired the two dissolved companies, Buenos Aires and Americana, to increase their physical capital. In 1924, the same manufacturers led the merger of three paper corporations, Argentina Fábrica de Papel, Fenix, and Bernal to create one giant paper corporation, Papelera Argentina. They purchased the Bernal factory simply to shut off its production processes. Papelera Argentina’s directorial reports show that they viewed increasing market share as the surest path to increased profitability. In 1927, the owners of Papelera Argentina reported the purchase of the paper corporation Casati and expected increased market power and larger future returns. Papelera’s directorial reports of this transaction noted that the company paid $262,976.63 national pesos in 1926 when it purchased Casati. However, the long-term benefits would be realized through

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90 Piccardo tabacos, Balance sheets and income statements, BORA and BOBCBA.
91 A horizontal merger is the merging of companies that produce and sell a similar product.
92 The five firms were Alberto de Bary y Cía, Zimmerman, Noé, y Cía, Eugenio C. Noe y Cía, Mercantil y Rural (1923), and the Anglo-Argentine Iron and Steel Company. Revista Tamez (Buenos Aires: Biblioteca Tornquist, Abril-Mayo 1944).
93 Rocchi (1997)
increased market power and larger profits. In the late 1920s, Papelera Argentina continued to acquire other paper companies to increase market shares. These manufacturers merged both physical and finance capital when they partnered with other wealthy financiers. For example, they connected with Hilario H. Leng, who sold them Fenix and Casati, and then invited Leng to join them as directors of Papelera Argentina. These industrial financiers then negotiated with another wealthy merchant-financier family, the Devotos. In 1926, they purchased the paper company, Bernal, from the Devoto group. Instead of cash payment, the Devoto group opted for 82,027 shares (series B) in Papelera Argentina.

There were also vertical mergers, the combination of businesses in which members of a vertical channel of distribution merge. This ideally eliminates middlemen, lowering costs and causing it to be more competitive if the savings are passed onto consumers. In 1903, the glass and box company Cía General de Envases led a merger of three companies producing three different products glassware, glass bottles, and cardboard boxes for glass packaging. Before 1910, the Cía General de Fósforos also acquired printing and paper companies to establish vertical integration. The paper company produced paper needed by the match company and the printing mill printed the company’s logo on the finished paper goods.

Companies merged because owners wanted to survive Argentina’s unpredictable business cycles. They turned to limiting all competition by merging with or acquiring them, which resulted in increasing their firms’ size and decreasing the number of large-scale competitors. By increasing equity—reserves and paid-in capital—they could stand up to the capital shortages that were common during downturns. If they survived, these elite finance groups expected even larger returns due to their greater abilities to stay in the market. Haber found that profit rates were relatively low for large-scale monopoly and oligopoly firms in Mexican industrialization during the same time period. He suggested that merchant financiers had expectations of monopoly rents in the long-run. These owners’ companies survived, but were very wasteful in their resources. They failed to

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95 Ibid.
96 In 1929, Papelera Argentina also acquired the paper company, La Anaino. Papelera Argentina, Directorial report, BOBCBA, (November 11, 1929), p. 1371.
97 “Papelera Argentina,” Bylaws BOBCBA (1924).
98 Compañía General de Fósforos, Director’s report, BOBCBA (July 4, 1927), p. 49.
99 “Compañía General de Envases,” M.S.4 Director’s report (1903), 238-239.
101 Ibid.
run their machines to full capacity and most annual income was placed in reserves rather than in potential research and development projects.

6. Analysis of the Metallurgy Sector (Figures 2 to 7)

By the 1930s, metallurgy sector was becoming increasingly concentrated. Large-scale corporations reported that they produced between 25 to 40 percent of national output for certain metallurgy products. Between 1895 and 1935, metallurgy technology became more sophisticated as well as costlier. New metallurgy technology drove the industry in the direction of fewer and larger-scale, multi-product foundries because of the high costs to import, install, and operate new technologies. Between 1895 and 1935, the metallurgy industry changed from production in small-scale, family-owned shops to large-scale metallurgy corporations by 1935. The number of small-scale metallurgy shops decreased from 2,111 in 1895 to 901 in 1935. By 1935, metallurgy firms became larger and their output was greater, however, they failed to expand or improve product lines. Large-scale firms like Cantábrica, El Eje, LaMetal, Talleres Metalúrgicos and Ferrum continued to focus their production on a limited range of finished products such as nails, rivets, screws, agricultural tools, wheel and axle repair, kitchen, and bathroom items. These were items that were regularly produced in forge shops. The decrease to small-scale shops was apparent in other industries wherein a few large-scale producers were able to control the markets through simply greater output.

- I chose three companies varying in size from small, Unión Fundición (700,000 pesos in paid in equity), medium Cantábrica (1,500,000 pesos in paid-in equity) and large TAMET (9 million in paid equity by 1930) to examine survival strategies.
- Figure 2: Survival strategies of TAMET, Large company: is able to take on debt through bank and sale of bonds because (a) secure that can pay off debt; (b) very little profits are placed in reserves because profits are used to pay off current operation costs, bondholders, and preferred shareholders. Ordinary shareholders don’t necessarily get paid. Ordinary stockholder has voting rights. An investor will likely want both ordinary shares to vote and preferred shares to get paid dividends.

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Figure 3. Survival strategies of Cantábrica: medium company: taking on both limited debt and maintaining reserves. It is still relatively dependent on reserves for survival.

Figure 4. Unión Fundición has far more in liquid assets than debt. It is a small company and it might be difficult to sell its bonds, difficulty in attracting new investors or convincing old investors to invest more in preferred shares or bonds. It largely depends on reserves for its survival far more than larger companies.

Figures 5 and 6. As a ratio, it appears that TAMET’s profits are lower and than Cantábrica, Unión, and all other companies under study. It might appear to be more lucrative to invest in the smaller companies. One hypothesis for TAMET’s lower ratios is that it is so large that it is not using machinery, increasing per unit costs, and burdened with higher costs and lower profits.

Figure 7. However, in a trend of real earnings. TAMET’s profits are larger when it becomes bigger after 1921. In the 1920s, TAMET is merging and significantly getting larger so that it is increasing its market shares and ability to control output and prices.

7. Conclusion

In this paper, I discuss how Argentine manufacturers focused on short-term strategies to survive Argentina’s imperfect market conditions. Owners of the survivor firms were typically large-scale companies that collected reserves, but also had access to financing through the sale of preferred stock and bonds and limited bank borrowing. By increasing equity in the form of both reserves and paid in capital, these companies could endure periods of capital shortages that were common during downturns. Most survivor companies stayed in the market because they expected larger returns and monopoly rents in the long run. They used their resources to acquire or merge with their competitors, which resulted in increased market power. The owners of these successful firms were most often entrepreneur groups that were more concerned with increasing profits by way of acquisitions and rent-seeking through tariff protection than by increasing efficiency through higher productivity and free trade.

Selected References


