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Corruption and Market Power in New Spain's Tobacco Monopoly: Data and Micro-historical Experimentation

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Abstract: This paper studies corruption as a form of response to colonial rule in New Spain. In late colonial Mexico, the Crown established a Tobacco Monopoly. The relationship between the market power of the monopoly and the acts of corruption documented by Dean Smith (2014) is studied. I estimate a decline in market power and a probable worsening of public finances because of corruption. In addition to presenting factual evidence, an experiment is carried out with 21st-century subjects who were handed over to situations like the ones lived by 18th-century planters to elicit the corrupt behavior of the time. Inspired by historical facts, this experiment is defined as a Micro-historical experiment. I found out that an agent tends to behave corruptly when any of three economic variables are present: (1) Harmful regulation to the agent, (2) Economic inequality and (3) Contingency of the decision to act corruptly when other agents are corrupt.

Keywords: Contingent Behavior, Inequality and Corruption, Lerner Index, Micro-Historical Experiment.

I. INTRODUCTION

New Spain's Tobacco Monopoly was created by the State in 1764-65, driven by the government's financial needs, with the only end of extracting resources from their American possessions and financing the Spanish wars. At its highest point, tax income from commerce in tobacco represented one-fifth of total state income from the colony. However, by the end of the colonial period, public finances plummeted in real terms, and this paper argues that on the side of the contribution of the tobacco monopoly, the decline was due to corruption among planters. Corruption became a main form of resistance to the Empire's rule among economic agents.

A wide variety of institutions regulated the economic rights of different population segments. Many colonial institutions were designed to benefit the Crown and elites at the expense of commoners, but these commoners were often able to subvert in unexpected ways. Here, I will argue that evidence of increasing cigarette production, declining real prices of cigarettes and the erosion of market power of the Tobacco Monopoly were in part a result of corruption and an endemic form of resistance in post-independence Latin America to current times.

Section II describes the functioning of New Spain's Tobacco Monopoly, while Section III briefly reminds the reader of the economic theory of monopoly. Section IV makes the connection between corruption in a monopoly and market power. Section V shows evidence of a link between corruption and the data on the history of New Spain's Tobacco Monopoly. Section VI carries out an experiment with 21st-century experimental subjects that explores the micro facts on the behavior of planters at the end of the colonial period with the degree to which individuals may exhibit corrupt behavior. Inspired by historical facts, this experiment is defined as a Micro-historical experiment. I found out that an agent tends to behave corruptly when three economic variables are present: (1) Harmful regulation to the agent, (2) Suffering of economic inequality and (3) Contingency of the decision to act corruptly when other agents are corrupt. Three variables were present in late colonial New Spain. Section VII concludes.

II. THE TOBACCO MONOPOLY IN NEW SPAIN

The Tobacco Monopoly was the most important enterprise in colonial Mexico and the third in industrial terms, after mining and textiles. It employed salaried workers to manufacture cigars and organized many independent planters that grew tobacco leaves and previously operated under conditions similar to a competitive market (Deans-Smith, 1992). As a commercial cultivation, it was an important sector before its state monopolization, with an estimated annual value of 12.3 million pesos in 1748 (Deans-Smith, 1999). Before the economic reorganization into a governmental monopoly, 3,275 cigarette shops were selling the final product in New Spain and employing 13,100 workers (Deans-Smith, 2014).



Spain first established a tobacco monopoly in the metropolis during the 17th century, with Cuba as its principal provider of tobacco leaves. Then, the Empire created several other monopolies in the American colonies and the Philippines during the 18th century as part of the Bourbon Reforms that, as it has been said, looked to extract resources for the Crown.

The possibility of monopolizing the sale of tobacco had already been dazzled half a century before, in 1721, when private enterprises requested the government concession to settle the tobacco monopoly (Luxán, 2018). Priestly (1916) references a 1642 recommendation emitted by Viceroy Juan de Palafox to the Crown, suggesting the monopoly.

New Spain was also the principal consumer of tobacco in the colonies, and through its governmental income and that from other sources, it was also the fundamental source of revenue for the metropolis and even for other colonies (Marichal and Souto, 1994; Marichal, 1997; Náter, 2004). New Spain's model of monopoly was implemented in other territories, such as in Guatemala, Nueva Granada, and the Philippines, and to some extent, in Peru (Luxán, 2018)

Some questions are still under debate regarding the quality of tobacco and its implications for international trade. Céspedes (1992) argues that New Spain's quality was as high as the best of the epoch. Náter (2000) contends that if it was not exported to international markets, it was to avoid opening economic competence for Cuban tobacco. Perhaps the point of not sending New Spain's tobacco to international markets lies in these views and a market segmentation policy by the Crown so that only tobacco from Cuba and Venezuela was directed to international sales. The fact is that New Spain's tobacco confronted domestic discriminatory tariffs. In addition, we must add the Pitt's Tobacco Act of 1778 (Corina, 1975; Price, 1973).

The economic context of New Spain's monopoly was strictly one of bilateral monopolies. It was a monopsony as the purchaser of the principal input (tobacco leaves) and a monopoly as the sole seller of the finished product to small shops: cigars. The state enterprise negotiated with planters the price of tobacco leaves and the quantity each planter could cultivate (and the factories would buy that). Then, the monopoly set a price for cigars in the territory.

A Government monopoly, the state had coercive means to enforce its contracts with the planters of tobacco leaves (Deans-Smith, 2014; Luxán, 2018), or at least it could raise the cost of non-compliance. Private commerce and manufacturing outside the official factories were criminal acts pursued (Deans-Smith, 2014).

The harvest of tobacco leaves was restricted to a small region in the country: Orizaba and Cordoba, in Veracruz. Then, the leaves were processed in one of six possible factories, one in the capital, Mexico City. The final product of the factories was sold to concessioned small shops. In the Philippines, the structure of its tobacco monopoly was similar to that in New Spain regarding the relationships between economic agents involved, from cultivation to the manufacture and sale of cigars (Jesus, 1980). It is calculated that at the start of New Spain's monopoly, there were around 100 individuals in the wholesale trade business (Deans-Smith, 2014, p. 70).

III. MONOPOLY

A firm able to set prices above marginal costs is said to have market or monopoly power. Profit maximization leads to the equalization between marginal revenue and marginal cost and the measure of the degree of market power called the Lerner Index, or monopoly markup. That is:

$$MR = P \left(1 - \frac{1}{|\varepsilon_D|} \right) = MC$$

Where P is price, MR is marginal revenue, MC is marginal cost, and ε_D is the elasticity of demand. Rearranging terms, we have the Lerner Index of market power:

$$L = \frac{P - MC}{P} = \frac{1}{|\varepsilon_D|}$$

The Lerner Index (L) indicates that market power is higher when the demand curve is more inelastic, and the monopoly can set a price well above the marginal cost of producing the good. Compared to competitive conditions, this involves a Welfare Loss (DWL) due to reduced production. Sometimes, an additional cost associated with monopoly is X-inefficiency, which is related to the firm operating under higher costs due to the lack of competitive pressures. In this case, total deadweight loss is higher (Comanor and Leibenstein, 1969; Aiginger and Pfaffermayr, 1997).

On the other hand, a monopoly may be associated with economies of scale: a long-run average cost curve that decreases as the quantity of output produced increases. This is identified as a natural monopoly, and such a market structure may be preferred to competitive firms. Or it may be that a monopoly might have even more propensity to implement innovative

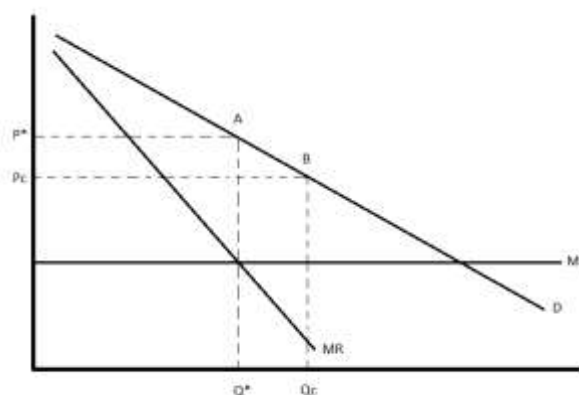
technologies than competitive firms. Then, more efficient ways of producing higher quality products or reduced costs should be observed.

IV. CORRUPTION AND MARKET POWER

Deans-Smith (2014, 1992) shows anecdotal evidence of corrupt behavior or non-compliance in the contracts between planters and local administrators of the tobacco monopoly. She mentions that by the early 1790s, planters were selling to local authorities more than allowed by contracts. So, the total output of tobacco should have been increasing.

Figure 1 shows the ordinary comparison between the quantity-price pair of the competitive and the monopoly's equilibrium. The monopolist's equilibrium is at point A, where quantity is Q^* , Marginal Revenue (MR) equals Marginal Cost (MC), and the product is sold at price P^* . It is not difficult to prove that, in this case, of constant marginal cost, an increase in the output level leads to a loss of market power for the monopolist. Likewise, reducing points B to A would raise the monopolist's market power. The same is also true for the case of increasing marginal costs. For decreasing marginal cost, the relationship between market power and output level would depend on the speed at which the marginal cost reduces compared to price decreases in demand.

Figure 1: Monopoly's Equilibrium.



This relationship between market power and production level is a fundamental result for this work, as it is the basis for establishing that corruption in the New Spain tobacco monopoly was a form of resistance, implied a loss of market power, a weakening of public finances for the State and a welfare gain for society.

Profit maximization by the monopolist involves a Welfare Loss (DWL) due to the reduction in the quantity of output compared to a situation of perfect competition. In the case of a movement from point A to B in Graph 1, it would correspond to a gain in well-being. Another additional measure of cost associated with monopoly is X-inefficiency, which is closely related to the fact that the company operates at higher costs due to the lack of competitive pressures. The death loss is also higher (Comanor and Leibenstein, 1969; Aiginger and Pfaffermayr, 1997).

On the positive side of the theoretical situation, the existence of the monopoly could be associated with economies of scale: a long-run average cost curve that decreases as the quantity of product increases. This case is usually identified as a natural monopoly, and such a market structure, when rightly regulated, may be preferred to competitive companies. It could also be the case that a monopoly is more likely to implement innovations in production technology than competitive firms. In this scenario, more efficient ways of production, better quality of products, or reductions in costs should be observed.

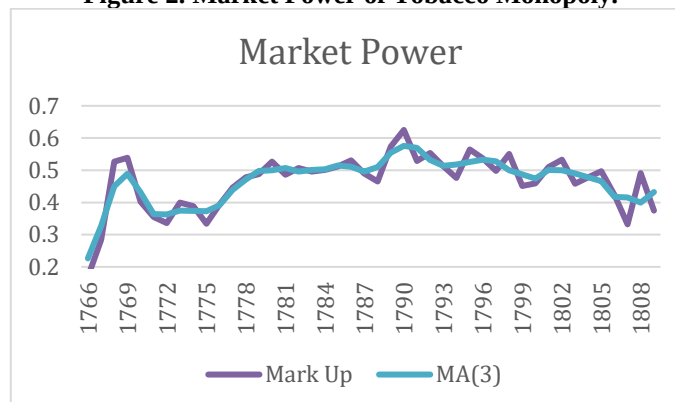
V. CORRUPTION IN NEW SPAIN'S TOBACCO MONOPOLY

The cases of corruption relevant to this work were discovered during the visit to the villages by the General Director of the Tobacco Monopoly, Silvestre Díaz de la Vega. These were illegal purchases above the quotas that the local monopoly offices made to the harvesters (Deans Smith, 2014, p. 186), the illegal sale of licenses by "pegujaleros" (Deans-Smith, 2014; p. 258), and smuggling (Deans-Smith, 2014; p. 198, 245).

Figure 2 shows the Lerner Index for the tobacco monopoly and its evolution from its start to the Independence War. It shows how market power initially increased, and from the 1790s onwards, it began to erode until the end of the colonial period. When the monopoly was established in approximately 1766, market power increased considerably from the first to the second year of operations. However, there were protests and riots over high prices, causing the Viceroy to relax the sales policy. From that moment on, the increase in market power was gradual. From 1775 to 1791, the Lerner Index increased from 37.22% to 56.91%. But after 1792, the decline did not stop. Why did this happen? Could it have been due to an increase in corruption levels?

This paper's data and experimental evidence suggest that was the case.

Figure 2. Market Power of Tobacco Monopoly.

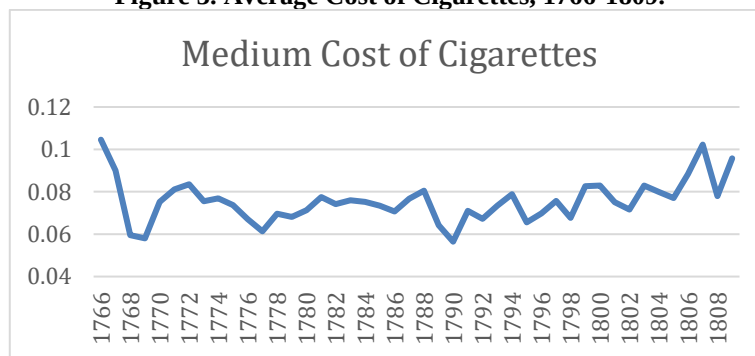


Source: Own elaboration based on data from *Income and Expenses of the Tobacco Monopoly* by Deans-Smith (2014),

How likely is it that marginal cost was constant? Figure 3 shows that it is plausible. The average cost was high during the first year of operation, but it was reduced the next year and remained there almost until the end of the colonial period, when a slight cost increase occurred between 1805 and 1809.

Figure 3 requires some explanation regarding its preparation. To build it, it was necessary to calculate a cigarette production index. Although the monopoly also produced cigars, there is no way to construct an index for cigar production. The cigarette production index, in turn, required the construction of a price index. Deans-Smith (2014) offers prices for different pack sizes, as shown in Figure 4. From this behavior, an average of the price of cigarettes was obtained, and with the resulting index, the total costs of the monopoly were divided. The result is the average cost that appears in Figure 3. Figure 4 shows near-constant nominal prices of cigarettes during the last 20 years under study, implying a decline in real prices since this was a time of high inflation. (See Challú and Gómez-Galvarriato, 2015).

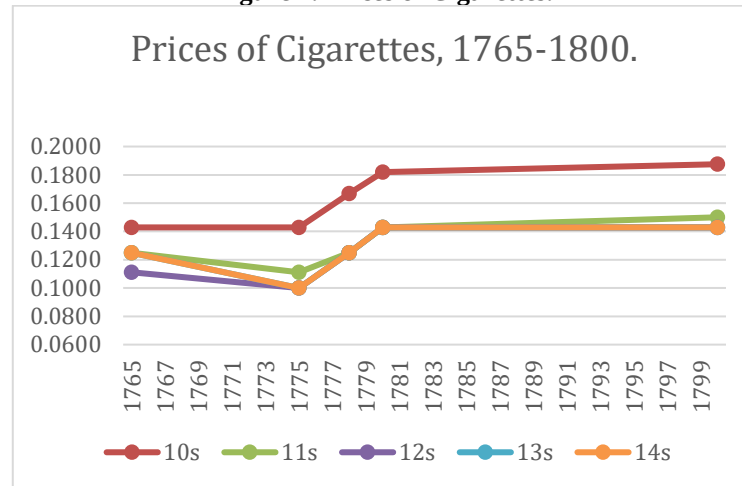
Figure 3. Average Cost of Cigarettes, 1766-1809.



Source: Prepared by the author based on data on the *Total Cost and Prices of Cigarettes* from Deans-Smith (2014).

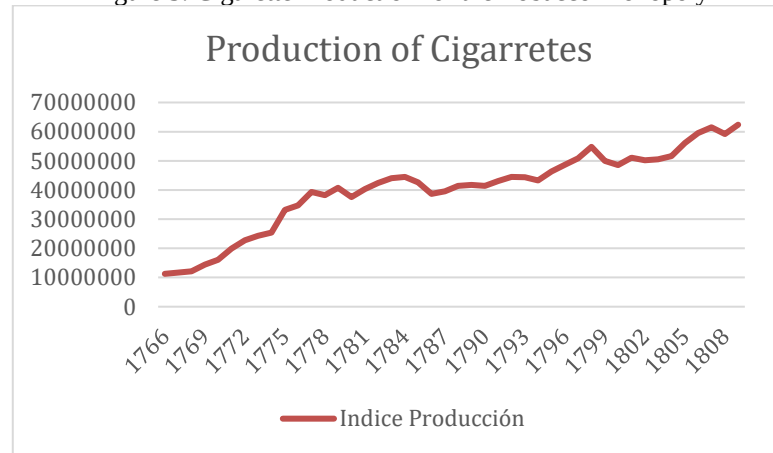
The production index of the monopoly appears in Figure 5. Here, it is worth noting that there was indeed an increase in production volume between the beginning of the monopoly and the mid-1770s. At that time, production stabilised until the beginning of the 1790s, when production began to increase. The latter is consistent with increasing illegal purchases by monopoly officials and, therefore, with the theory that corruption eroded the monopoly's market power after 1791.

Figure 4. Prices of Cigarettes.



Source: Deans-Smith (2014)

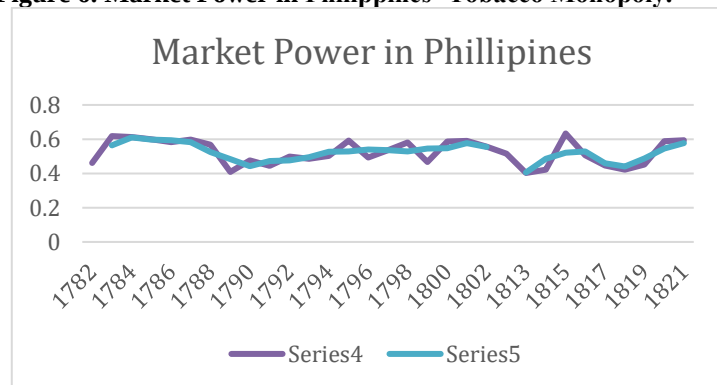
Figure 5. Cigarette Production for the Tobacco Monopoly



Source: Own elaboration based on data from Deans-Smith (2014).

What was happening in the Philippines? There was also a tobacco monopoly there, and Figure 6 shows the behavior of its market power. Market power remained constant in the Philippines, at least in the 1790s. After that, it is difficult to establish because of missing data and perhaps a slight drop in market power until the end of the first decade of the 19th century. Therefore, we cannot say that the erosion of the market power of the New Spain tobacco monopoly was due to international forces that were also affecting the Philippines.

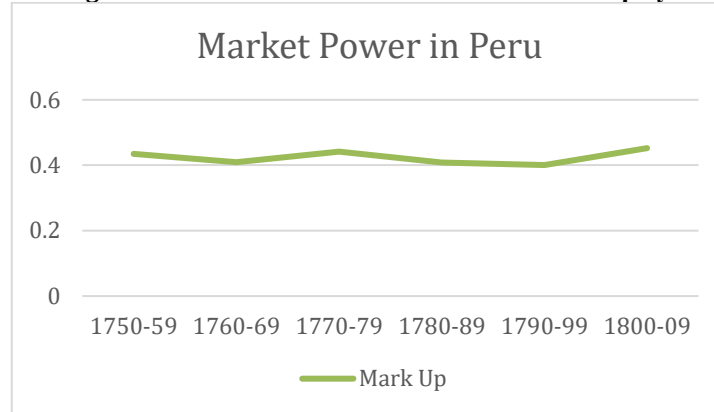
Figure 6. Market Power in Philippines' Tobacco Monopoly.



Source: Elaborated by the author from Income and Cost Data presented by Jesús (1980).

And what do we know about the tobacco monopoly in Peru? There, the evidence is even stronger. As shown in Figure 7, there was practically a constancy in market power throughout the period considered in Peru. Although the available data are averages for decades, what can be concluded is that market power ranged between 40 and 45% during the last sixty years of Spanish rule.

Figure 7. Market Power in Peru's Tobacco Monopoly.



Source: Prepared by the author using income and cost of Peru's Tobacco Monopoly, as reported by Vizcarra (2007, p. 570).

Therefore, local forces seem to determine the erosion of market power in New Spain. And everything indicates that corruption played an important role.

VI. MICROBEHAVIOR

During the 1790s, New Spain's planters were living conditions that probably resulted in the higher corruption levels documented by Deans-Smith (2014). To test this hypothesis (that those external conditions were responsible for the corrupt behavior and the erosion of market power in the tobacco monopoly), I carried out an experiment using 21st-century experimental subjects who were asked to respond to different decision-making situations in different scenarios. They were asked How likely they would behave corruptly under different contexts.

The probabilities were measured by a number between 1 and 5, where "1" means "Very Unlikely" and "5" means "Very Likely."

Each experimental subject was asked: "Imagine you are a tobacco leaf producer. Previously, you could sell your tobacco leaves to stores that specialized in making cigarettes. But not anymore. Now, the government has established a monopsony. Producers are prohibited from selling tobacco leaves or cigarettes to anyone other than the government.

Additionally, at the beginning of the year, the government establishes how many kilos of tobacco leaves it will buy from each producer. This means that it will not buy more from you than established. If you produce more kilos of tobacco leaf, by law, you can't do anything with them other than burn them. The government has decreed that, for this year, it will buy a kilo of tobacco for 150 pesos from any producer, and for you, it has determined that it will not buy more than 2,000 kilos from you, which means that you will make a total sale of 300,000 pesos. You have heard that a smuggler in the region buys tobacco leaves at the discounted price of 100 pesos per kilo."

(Q1). Under this context, the experimental subject was asked: "How likely is it that you will plant to produce on your land more than the 2,000 kilos that the government will buy from you and that you will sell the rest to the smuggler?" From there, the subject had to respond between one and five, indicating this probability.

(Q2). Subsequently, the experimental subject was told: "The government decides that it will now buy a kilo of tobacco leaf for 125 pesos, no longer 150, which will leave you with a sale of 250,000 pesos, not 300,000. How likely is it that you will plant to produce on your land more than the 2,000 kilos that the government will buy from you and that you will sell the rest to the smuggler?" And the subject had to give his numerical answer. The difference between the "probability" of question 1 and that of question 2 would measure the effect of a drop in price due to State economic regulation on corruption levels.

(Q3). Subsequently, the experimental subject was told: "You have heard that a very poor producer, who only produces a quarter as much as you, has managed to convince a government official in charge of purchasing for the tobacco monopoly to buy

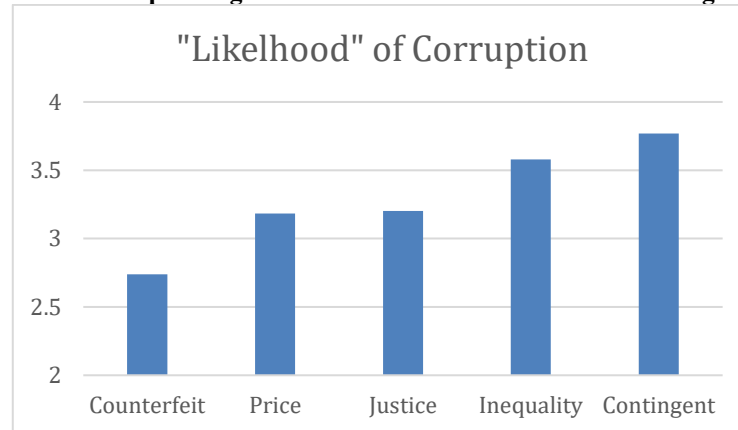
more tobacco from him than his quota of 500 kilos, at a discount of 110 pesos per kilo for the excess tobacco. How likely is it that you will plant to produce on your land more than the 2,000 kilos that the government will buy from you and that you will sell the rest to the smuggler or that you will try to sell it to the official who buys more than the quotas? This question is interpreted as the effect of an act of social justice on corruption levels.

(Q4). Subsequently, the experimental subject was told: “You have heard that the richest producer in the region, who sells 2 million pesos to the government, has also convinced the monopoly official in charge of government purchases to buy more from him out of his quota of 16,000 kilos of tobacco, for the same discount that he gives to the poor producer. How likely is it that you will plant to produce on your land more than the 2,000 kilos that the government will buy from you and that you will sell the rest to the smuggler or that you will try to sell it to the official who buys more than the quotas, or that you will try to sell it to him to the rich producer so that he can sell it to the official who buys too much?” This question measures the effect of economic inequality on corruption levels.

(Q5). Subsequently, the experimental subject was asked: “You find out that half the producers sell their excess harvest to the official who buys more for the discount already indicated. How likely is it that you will plant to produce on your land more than the 2,000 kilos that the government will buy from you and that you will sell the rest to the smuggler or that you will try to sell it to the official who buys more than the quotas, or that you will try to sell it to him to the rich producer or anyone else so that he can sell it to the official who buys too much?” This question is identified as the effect of contingent behavior on corruption levels.

The average responses for each question, over the sample of 138 experimental subjects, are shown in Figure 8. As can be seen immediately, moving from one question to the next involves an increase in the “probability” of behaving corruptly, with a less marked increase between questions 2 and 3. This is when the experimental subject knows about the poor producer who sells more than his quota to the corrupt monopoly official. In all other cases, there is always a pronounced increase in the probability of corruption.

Figure 8: “Likelihood” of planting more tobacco than allowed and behaving corruptly.



Source: Prepared by the author using responses from an experiment with 138 subjects.

Table 1 presents summary statistics for the responses to each of the questions. The increasing trend can be measured in quantitative terms here, while the similarity in the dispersion among responses is evident in Table 1. This table can be useful for testing differences in means between the likelihoods of corrupt behavior for each additional question, which is the topic I am turning to now.

Table 1. Summary Statistics for each Experimental Question.

Question	Mean	Median	Stand. Dev.	Variance
Counterfeit.	2.74	3	1.25	1.55
Price	3.18	3	1.24	1.54
Justice	3.20	3	1.23	1.51
Inequality	3.58	4	1.21	1.46
Contingency	3.77	4	1.29	1.67

Source: Own calculations based on 138 experimental observations.

Table 2 presents the empirical results of the experiment. The differences in means are significant at the standard 5% level, except between Q3 and Q2.

Table 2: Tests of Hypotheses.

Test	N	Mean	Standard Error	Standard Deviation	t-Statistic	P > t
Q2-Q1	138	0.446	0.056	0.661	7.92	0.0000
Q3-Q2	138	0.018	0.081	0.952	0.22	0.4117
Q4-Q3	138	0.376	0.080	0.937	4.72	0.0000
Q5-Q4	138	0.188	0.065	0.760	2.913	0.0021

Source: *The author elaborated on this with data from the experiment.*

There is an increase in the probability of behaving corruptly when the government imposes a reduction in the price at which the experimental subject purchases a kilo of tobacco. The increase in the degree of probability is significant and is larger in quantitative terms. Second, although there is an average increase in the degree of probability of behaving corruptly when the experimental subject hears about the case of the poor producer who sells his excess production to the corrupt official, this is not significant. Its p-value is 41%. Third, there is some increase in corruption when the experimental subject hears of corruption between the rich landowner of the region and the monopoly official. This is the second largest effect in quantitative terms. Fourth, when the experimental subject finds out that half of the farmers sell to the corrupt official, there is an increase in the estimate of the degree of corruption, and it is significant. Its p-value is 0.21 per cent.

In summary, average corruption increases when: (1) Government regulation reduces the price of sales, (2) The rich are known to be involved in corruption, and (3) because of contingent behavior, when people believe that everybody is involved in corruption. Deans-Smith (2014) finds evidence that all these potential reasons for corruption were present among planters in New Spain's Tobacco Monopoly from the early 1790s onwards.

VII. CONCLUSIONS

This work has presented evidence that corruption eroded the market power of the tobacco monopoly in 18th-century New Spain. As public revenues were dependent on revenue from the monopoly, corruption may have also weakened public finances, resulting in a form of resistance that, in the end, made it difficult to defend the Crown against the independence movement of 1810.

A wide variety of institutions regulated the economic rights of different population segments. Many colonial institutions were designed to benefit the Crown and elites at the expense of commoners, but these commoners were often able to subvert in unexpected ways. Here, I will argue that evidence of increasing cigarette production, declining real prices of cigarettes and the erosion of market power of the Tobacco Monopoly were partly a result of corruption and endemic form of resistance in post-independence Latin America to current times.

On the factors that may have led to favorable behavior towards corruption among planters, various variables were considered as determinants of a corrupt decision, and those inspired an experiment.

I found out that agents tend to behave corruptly when three economic variables are present in the economy: (1) Harmful regulation to the agent, (2) Suffering of economic inequality and (3) Contingency of the decision to act corruptly when other agents are corrupt.

Further research is still necessary to establish the relationship between the tobacco monopoly's market power and the Colony's public revenues, in general; however, the current state of the literature points in that direction.

Interest Conflicts

The author declares that there is no conflict of interest concerning the publishing of this paper.

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VIII. REFERENCES

- [1] Andrien, K. J., 1985; *Crisis and Decline: The Viceroyalty of Peru in the Seventeenth Century*, Albuquerque.
- [2] Brading, David, 1984; "Bourbon Spain and its American Empire", in: L. Bethell, *The Cambridge History of Latin America*, vol. I, Cambridge.
- [3] Céspedes del Castillo, Guillermo, 1992; *El Tabaco en Nueva España*. España: Real Academia de la Historia.
- [4] Challú, Amílcar E., and Aurora Gómez-Galvarriato, 2015; "Mexico's Real Wages in the Age of the Great Divergence", *Revista de Historia Económica*, 33, pp. 83 -122.
- [5] Cooney, J. W., 1992; "Fraude y burócratas: tabaco y Paraguay 1789-1790", *Revista Paraguaya de Sociología*, 29:85, pp. 29-40.
- [6] Corina, M., 1975; *Trust in Tobacco. The Anglo-American Struggle for Power*. London: M. Joseph.

- [7] Deans-Smith, Susan, 2014; *Burócratas, cosecheros y trabajadores. La formación del monopolio del tabaco en la Nueva España borbónica*, México: Universidad Veracruzana.
- [8] -----, 1999; "El estanco del tabaco en el México borbónico", in A. González Enciso and R. Torres Sánchez (eds.). *Tabaco y economía en el siglo XVIII*. Pamplona: EUNSA, pp. 79-106.
- [9] Jesus, Ed C. de, 1980; *The Tobacco Monopoly in the Philippines. Bureaucratic Enterprise and Social Change, 1766-1880*. Ateneo de Manila University Press, Quezon.
- [10] Díaz Hernández, Magdalena, 2008; "Contrabandistas tabaqueros en la región de Veracruz (1765-1807). El sistema alternativo al estanco del tabaco", *Chronica Nova*, 34, pp. 199-217.
- [11] Gil Martínez, Francisco y Amorina Villarreal Brasca, 2017; *Estudios sobre la corrupción en España y América, siglos XVI-XVIII*, España: Universidad de Almería.
- [12] Glaeser, Edward L., and Claudia Goldin, 2006. *Corruption and Reform: Lessons from America's Economic History*. Chicago: Chicago University Press.
- [13] Leff, Nathaniel, 1964. "Economic Development through Bureaucratic Corruption", *American Behavioral Scientist*, vol. 8, pp. 8-14.
- [14] Little, Walter and Eduardo Posada-Carbó, 1996; "Introduction", in: (ibid), *Political Corruption in Europe and Latin America*, pp. 1-17. Great Britain: Macmillan Press Ltd.
- [15] Luxán Meléndez, Santiago de, 2018; "El proceso de construcción del estanco imperial hispánico, 1620-1786. Las reformas borbónicas del siglo XVIII", *Anuario de Estudios Atlánticos*, 65, pp. 1-26.
- [16] Lynch, John, 1989; *Bourbon Spain, 1700-1808*; Oxford University Press.
- [17] Marichal, Carlos, 1997; "Beneficios y costes fiscales del colonialismo: las remesas americanas a España, 1760-1814", *Revista de Historia Económica*, 3, pp. 475-505.
- [18] Marichal, Carlos; "Silver and Situated: New Spain and the financing of the Spanish Empire in the Caribbean in the Eighteenth Century", *Hispanic American Historical Review*, 74 (4), pp. 587-611.
- [19] McFarlane, Anthony, 1996; "Political corruption and reform in Bourbon Spanish America"; in: Walter Little and Eduardo Posada-Carbó, *Political Corruption in Europe and Latin America*, pp. 41-63. Great Britain: Macmillan Press Ltd.
- [20] Miller, Roy, 1996; "Foreign Capital, the State and Political Corruption in Latin America Between Independence and the Depression", in Walter Little and Eduardo Posada-Carbó, *Political Corruption in Europe and Latin America*, UK: MacMillan Press Ltd.
- [21] Náter Vázquez, 2004; "Fiscalidad imperial y desarrollo regional en el siglo XVIII. El monopolio del tabaco como instrumento de fomento en la Luisiana", *Historia Mexicana*, LIV (1), 2004, pp. 59-91.
- [22] -----, 2000; *Integración Imperial: el sistema de monopolios de tabaco en el Imperio español. Cuba y América en el siglo XVIII*. México: El Colegio de México: Centro de Estudios Históricos.
- [23] Parry, J. H., 1953; *The Sale of Public Office in the Spanish Indies under the Hapsburgs*, Berkley.
- [24] Phelan, J. L., 1967; *The Kingdom of Quito in the Seventeenth Century: Bureaucratic Politics in the Spanish Empire*, Madison.
- [25] Priestley, Herbert, José de Gálvez: *Visitor General of New Spain, 1765-1771*, Vol. V. Berkeley: University of California.
- [26] Pietschmann, H., 1982; "Burocracia y corrupción en hispanoamérica colonial. Una aproximación tentativa", *Nova Americana*, vol. 5, H.
- [27] -----, 1989; *El estado y su evolución al principio de la colonización española de América*; México.
- [28] -----, 2013; "Corrupción en el virreinato novohispano: un tercer intento de valoración", *e-Spania, revue interdisciplinaire d'études hispaniques médiévales et modernes*, 16.
- [29] Poole, S, 1981; "Institutionalised Corruption in the letrado Bureaucracy: The case of Pedro de Farfán (1568-1588)", *The Americas*, vol. 38.
- [30] Price, Jacob M., 1973; *France and the Chesapeake: A History of the French Tobacco Monopoly, 1674-1791, and its Relationship to the British and American Tobacco Trades*, 2 vol. Ann Arbor: University of Michigan Press.
- [31] Rosenmüller, Christoph (ed.), 2017; *Corruption in the Iberian Empires: Greed, Custom, and Colonial Networks*. US: University of New Mexico Press.
- [32] -----, 2019; *Corruption and Justice in Colonial Mexico, 1650-1755*. UK: Cambridge University Press.
- [33] Tanck de Estrada, Dorothy, and Carlos Marichal, 2010. "¿Reino o Colonia? Nueva España, 1750-1804", in Erick Velásquez García et al., *Nueva Historia General de México*. México: El Colegio de México.
- [34] Torres Güiza, Johan Sebastián, 2019; "Corrupción en la renta de tabaco del virreinato de Nueva Granada: El delito de malversación en la administración principal de Santafé (1778-1810)", *Historia y Memoria*, Julio-Diciembre, pp. 229-266.
- [35] Walker, C. J., 1979; *Spanish Politics and Imperial Trade, 1700-1789*; London.
- [36] In some occasions, Santo Domingo, Louisiana, and Puerto Rico also exported tobacco to international markets.
- [37] This is the well-known Harberger (1954) triangle. See also Jenn and Weber (1983) and Hines (1999) for methodological and empirical controversies related to its measurement.