1996

Supply, Demand, and the Making of a Market: Philadelphia and Havana at the Beginning of the Nineteenth Century

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In his 1984 assessment of the state of historical research, “The Transatlantic Economy,” Jacob Price comments: “The writing of most early American economic history has concentrated upon supply. For many branches of the economy, the great unexplored frontier may well be demand.” The relationship between Philadelphia and Havana is a case in point. From the onset of the American Revolution until well past the end of the Napoleonic Wars, the port cities of Havana and Philadelphia were inextricably linked. As their own rich hinterlands expanded, and as established transatlantic trade routes disintegrated, Havana and Philadelphia grew ever closer, exerting profound influences upon their respective regional economies and merchants. Spaniards and Cubans alike considered Philadelphia the principal entrepôt for United States foodstuffs shipped to the island while Havana emerged as the leading market for American exports through Philadelphia. This close relationship between the two ports predated the strong links between the newly independent nation and the Spanish colony that characterized most of the nineteenth century and contributed to the War of 1898. However, it was during the early years, from the 1770s through the 1820s, that the fortunes of Philadelphia and Havana were most deeply affected by their reciprocal trade.

In his seminal 1974 essay Jacob Price noted that the West Indies served as a key outlet for provisions from Philadelphia since the time of its foundation. On the eve of the American Revolution, Philadelphia was the principal flour exporter in North America. Unfortunately, no reliable quantitative estimates of Philadelphia’s early trade with Cuba are available. It is likely, however, that some of its products found their way from neighboring Caribbean islands to Havana despite official restrictions of direct trade. During the Revolutionary War, the governments of both the United States and Spain encouraged contact between the two ports. Then Spain tried to once again close its colony to American shippers in 1784. This belated
reversion to mercantilist policies proved unsuccessful. Within a few years Cuba's sugar revolution was in full swing while hostilities in Europe ensured the United States a predominant role in the supply of foodstuffs, domestic manufactures, European reexports, shipping services, and slaves to the island's burgeoning population. These American goods were exchanged for sugar, specie, and tropical produce.

More often than not, Havana importers and bakers specified a preference for "Philadelphia flour" while Philadelphia merchants assumed highly visible roles in the trade. Spanish policymakers struggled vainly to exert some control by means of an increased consular presence along the eastern seaboard. The ranking Spanish commercial official resided in Philadelphia. He and his subordinates were supposed to issue licenses for selected shipments of grain and other necessities to the island. Their correspondence, however, offers a striking testimony of the extent to which North Americans had already penetrated the Cuba market, scandalously flaunting Bourbon regulations and frequenting the colony's ports "as if they were their own." This type of qualitative evidence strongly suggests that United States trade to Cuba was centered in Philadelphia at the beginning of the nineteenth century. Complete runs of quantitative data are scarce for the years before 1820. Extant sources include records of ship departures and arrivals as well as flour price series for the respective ports. Later volume and value export statistics offer some insights into the significance of the Havana market for Philadelphia.

For example, American customs officials compiled lists of clearances from Philadelphia to all foreign and domestic ports. These clearances may serve as a minimum indicator of direct trade and as a rough indicator of Cuban demand. Between 1794 and 1822 the number of recorded departures from Philadelphia to Cuba grew on average by 4 percent per year, a sizeable rate of increase that implies a doubling of traffic every seventeen years. Let us examine the patterns more closely. From 1794 to 1802, but particularly during the "first neutral trade" of 1797-99, outbound traffic grew steadily. Following a brief drop in 1802-3, coinciding with the Peace of Amiens and a lack of circulating specie in Havana, declared sailings from Philadelphia increased sharply. With the resumption of global hostilities and the proclamation of the "second neutral trade" from 1805 to 1807, they reached an all-time peak in 1806 and 1807. Data for the first several months of 1808 are missing, but it is clear that Philadelphians dispatched ships to Havana even during the embargo imposed by President Jefferson. After this measure was superseded by the Non-Intercourse Act in March 1809, clearances to Cuba increased although they failed to match pre-embargo levels. Between 1809 and 1813 Philadelphia departures declined precipitously, as the British Navy interfered with much American shipping.
Once the War of 1812 concluded, sailings from Philadelphia to Cuba again displayed a positive trend, which continued into the next decade, well past 1818, when Spain granted Cuba the right to free trade in the world market.  

To recapitulate, surviving U.S. customs records point to a vigorous and generally growing trade from Philadelphia to Cuba throughout the Napoleonic Era. (See table 2.1.) The trend was not uniform, and there were occasions when war markedly disturbed the growth of the market. Nevertheless, between 1794 and 1822, the Cuban demand for provisions shipped through Philadelphia was first established and then enlarged.

Over the course of the same three decades, Philadelphia’s trade to Cuba diversified to the outports. Throughout the 1790s Havana did receive the overwhelming majority of Philadelphia vessels destined for the Spanish island. Only a scant few ships cleared directly for the next largest port, Santiago de Cuba. However, by the beginning of the nineteenth century, departures to Santiago increased noticeably while other, smaller ports also appeared on the lists. Philadelphia’s traffic with Cuba continued to diver-
### Table 2.1. Continued

<table>
<thead>
<tr>
<th>Year</th>
<th>Cleared for</th>
<th>Arrived from</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All Cuba</td>
<td>Havana</td>
</tr>
<tr>
<td>1805</td>
<td>78</td>
<td>46</td>
</tr>
<tr>
<td>1806</td>
<td>117</td>
<td>66</td>
</tr>
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<td>1808</td>
<td>25</td>
<td>20</td>
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<td>1810</td>
<td>79</td>
<td>57</td>
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<td>1811</td>
<td>73</td>
<td>41</td>
</tr>
<tr>
<td>1812</td>
<td>38</td>
<td>18</td>
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<tr>
<td>1813</td>
<td>25</td>
<td>16</td>
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<td>1814</td>
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<td>32</td>
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<td>1815</td>
<td>65</td>
<td>39</td>
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<td>1816</td>
<td>60</td>
<td>37</td>
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<td>1817</td>
<td>60</td>
<td>38</td>
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<td>1818</td>
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<td>1819</td>
<td>75</td>
<td>38</td>
</tr>
<tr>
<td>1820</td>
<td>91</td>
<td>47</td>
</tr>
<tr>
<td>1822</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

**Sources:** Figures in [ ] are from Roy F. Nichols, "Trade Relations and the Establishment of the United States Consulates in Spanish America, 1779–1809," *Hispanic American Historical Review*, 13 (August 1933): 289–313. Figures in [ ] are taken from charts supplied by Valentin Faronda in *Archivo Histórico Nacional* (Madrid), Sección de Estado, legajo 6175 bis.

n.a. = not available in consulted American primary sources.

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Sify after the War of 1812. By 1822 only one-half of all its clearances went to Havana. Santiago, the rapidly expanding Matanzas and, to a far lesser extent, Nuevitas, Trinidad, and Baracoa received the remainder.9 Planters outside the Cuban capital increasingly fostered their own direct state-side connections. Havana no longer monopolized the colony's commerce with the United States although it did continue to dominate it. These trends are hardly surprising, given the growing white, free black, and slave populations; the geographical expansion of sugar cultivation on the island; and the entry of new American merchants into the profitable Cuban trade.

Extant arrivals data for Philadelphia from Havana are far less complete than the departures series. Still, the recorded yearly entrances track closely with the clearances, implying a strong bilateral trade between these ports. To the extent that seasonal cycles can be determined, the number of arrivals and departures both tended to increase across the calendar year. This pattern suggests some coordination between vessel traffic and the Pennsyl-
vania wheat harvest. Departures from Philadelphia peaked in the third and fourth quarters (June through November). By late summer or early fall enough time had elapsed for the American crop to be harvested, milled, transported to the city, inspected, sold, and loaded on ships. Those ships departing on a late fall schedule—as they did with greater frequency after 1815—left Philadelphia before fear of ice on the Delaware River became a real threat. By so doing they arrived in Cuba close to the beginning of the sugar harvest (around December). However, if the same shippers planned to carry the island product back to Philadelphia for refining, the figures should reflect a higher number of arrivals early in the new year. But this is not the case. Insofar as the fragmentary arrivals data for Philadelphia are representative, they indicate that inward traffic was greatest during the fourth quarter. Thus it appears that Havana served Philadelphia primarily as an agricultural export market rather than a cyclical source of sugar imports.

In other words, the bilateral trade was driven more by Cuban demand for provisions than by the mainland demand for sugar. Small wonder, then, that commercial politics were centered on the commodity flour. As pointed out below, operators like the Conde de Mopox y Jaruco and his cronies schemed to profit by restricting the flour supply and thus distorting the market in Havana. Their activities illustrate how political power and rent seeking went hand in hand during the Napoleonic Era.

Of course Philadelphia's relationship with Cuba needs to be examined in the context of its total outbound traffic. A 10 percent sample of all recorded clearances from Philadelphia between 1794 and 1822 confirms the significance of Caribbean destinations in general and of Cuban ones in particular. The Caribbean as a whole accounted for nearly one-half of all departures and two-fifths of all tonnage declared for foreign ports at Philadelphia. When the islands are classified by parent state, the Spanish possessions—primarily Cuba but also Santo Domingo and Puerto Rico—easily outrank the others as Philadelphia's preferred trading partners. This pattern appears to have stabilized over time. Moreover, when individual Caribbean ports are ranked by tonnage at five-year intervals, Havana usually occupies either first or second place while Santiago frequently ranks within the top five as well. Furthermore, in 1800 and 1805, Havana led all foreign clearances from Philadelphia, including those to Europe and the Far East.

Thus Havana (and, to a lesser extent, Santiago) exerted a demand for Philadelphia's exports all out of proportion to its size. To apply Price's model, the growing Cuban market had profound ramifications for Philadelphia. Merchants, shippers, millers, coopers, carters, and farmers all profited from this trade.

Ship manifests, insurance policies, and aggregate trade statistics for the United States and Cuba shed some light on the composition of outbound
merchandise. By all indications the principal export from Philadelphia and
the rest of the mainland as well was domestically produced flour. In 1790,
for example, this commodity alone accounted for approximately 50 per-
cent of the value of total American exports to the Spanish West Indies,
a reliable proxy for Cuba. Unfortunately, comparable estimates are not
available for the intervening period down to 1821. For that year, however,
the value of United States flour sent to Cuba amounted to $675,952, repre-
senting 23 percent of the value of all domestic exports there and nearly
16 percent of American flour exports worldwide.

Aside from flour, the United States sent a wide assortment of other pro-
visions to the island. Pork products, wood (processed into staves, planks,
and containers for sugar), tallow candles, soap, rice, and footwear trailed
flour by value on the aggregate level in 1821. Individual cargoes usually
included some combinations of the following foodstuffs as well: fish, beef,
dairy products, other grains and flours (corn, rye, barley), legumes (beans,
peas, potatoes), apples, and beer. Nails, agricultural implements, cottons,
hats, coaches, furniture, gunpowder, medicines, horses, and mules also ap-
peared with varying frequency. Spanish imperial authorities taxed most
of these imports, reserving preferential rates not for the needed comestibles
but for wood and iron products. The composition of Cuba-bound cargoes
did not appear to change dramatically between 1779 and 1823. However,
the dollar value of domestic produce sent from the United States tended
to increase after 1803 as the overall value of reexports dropped off. On
the whole, then, trade with Cuba provided Americans with a ready outlet
for their agricultural surpluses and simple manufactures even as U.S. shippers
dominated at least 40 percent of Cuba's foreign trade.

As far as cargoes sent back from Cuba are concerned, in 1821 over 60
percent of the sugar products that entered the United States came from
Cuba. Still, sugar was not always the commodity Americans preferred.
Especially for those also active on other routes, specie became an attrac-
tive return cargo. Havana received regular influxes of hard coin from the
Viceroyalty of New Spain, and it is clear that hundreds of thousands of
these pesos flowed northward annually. One British diplomat estimated
that over $500,000 of Spanish American silver entered Philadelphia alone
in 1787. Several years later Stephen Girard's resident correspondent in
Havana accumulated such massive amounts of coin that he had to hoard
and even bury some before completing shipments off the island. Aside
from functioning as direct remittance for goods and services, specie was
carried by American merchants to be minted or transferred to accounts
in Europe. For example, the Philadelphia merchant John Leamy took out
six separate insurance policies in March 1794 to protect specie-laden ships
departing Havana with quantities ranging in value from $7,000 to $24,000.
Six months later he purchased another policy on $80,000 worth of pesos to be transported on at least four different ships. Finally, American ship captains smuggled out thousands of pesos on individual voyages. Usually coins were concealed in the bottoms of sugar containers.\textsuperscript{19}

Much as they tried, Spanish imperial officials could not stop the drain of hard currency from Cuba. They did, however, attempt to link specie exports to the slave trade in order to augment the colony’s labor force. As of 1802, specie could be legitimately exported from Cuba only as proceeds from the sale of slaves. Another policy implemented in 1789 had tied slaves to flour importations as well. Flour-laden ships from the United States received preferential treatment if they also brought in unfree blacks.\textsuperscript{20} American flour merchants thus had two incentives to participate in the slave trade to Cuba. But the extent to which they did so remains unclear. While some United States slavers, usually based in New England, made large deliveries directly from Africa, many American vessels appear to have stopped at nearby Dutch and Danish islands on their way to Cuba. There they picked up only a few slaves, at most enough to facilitate the discharge of their flour cargoes in the Spanish West Indies. Additional evidence from consular and business correspondence suggests that at least some flour traders from Philadelphia operated accordingly.\textsuperscript{21}

If not all North American ships entered Havana harbor with slaves on board, it is hard to imagine that many arrived without flour. Quantities ranged from a few dozen to a few thousand barrels, rendering average estimates unhelpful. For example, fifteen flour-laden American vessels—all but three from Philadelphia—were legally admitted between April 14 and June 25, 1796. The median number of American barrels delivered was 897; however, individual cargoes ranged from 57 to 2,240 barrels.\textsuperscript{22} Other evidence implies that large-scale operators such as Leamy and Girard tried to send around 2,000 barrels per voyage. U.S. suppliers faced no serious competition on the Havana flour market, which expanded rapidly after 1790. But how large was it? Even imperial bureaucrats, intent upon minimizing their estimates, conceded that Cuba took over 100,000 barrels per year in the first decade of the nineteenth century. By 1829 official annual imports surpassed 200,000 barrels.\textsuperscript{23} Still, American sellers did not have an easy time in Havana. Delays in unloading together with improper storage, capricious enforcement of commercial regulations, and a system whereby the powerful bakers’ guild purchased most of the flour, all interfered with the efficient transaction of business.

The instability of the Havana flour market is further demonstrated by comparing selling prices there and in Philadelphia. Since neither colonial officials nor Cuban newspapers regularly recorded flour prices, one must look to American letters, periodicals, and prices current for information...
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regarding both ports. Fortunately the papers of Philadelphian Stephen Girard contain enough data to allow the construction of a series for Havana that runs from February 1797 to February 1824. Girard often complained about the sluggish flow of information northward, but his agents sent relatively frequent quotations. In short, the paired prices demonstrate the distorting effects of the Napoleonic Wars because only after 1815 did American and Cuban prices consistently move together.

It is instructive to scrutinize this price series by quarters. Between January 1797 and December 1801 a barrel of Philadelphia flour sold in Havana for anywhere from $13.50 to $24.00. For this period only there is a slight negative correlation—implying an inverse relationship—between prices in Havana and those from the preceding month in Philadelphia. Why should rising prices have prevailed in Cuba when falling prices were current in Pennsylvania? A plausible explanation for the most dramatic episode, which occurred at the end of 1798, involves the royal concession granted to the Conde de Mopox y Jaruco to supply the island with 100,000 barrels of flour. As delivery and sales were channeled through the Mopox network in 1797 and 1798, prices in Havana initially rose. But in their haste to transport the preferentially taxed flour to Cuba, his agents soon glutted the market. Worse still, these barrels were so improperly stored that bakers refused to purchase the "moldy merchandise." Their written protests correspond closely with the drop in prices in Havana during the second half of 1798.

Philadelphia and Havana flour prices were again noticeably at odds during the last six months of 1800 when, it appears, a specie crisis was to blame. According to contemporary assessments there simply was not enough currency in circulation to facilitate purchases. On July 15 Girard's correspondent wrote: "The market is extremely dull, flour the only good article, cash very scarce." Then, more than 150 American vessels arrived in Havana during the first three weeks of September. The available supply of fresh foodstuffs was thus inflated, further aggravating a dismal situation for sellers. Yet this was not the only occasion when multiple arrivals played havoc with the market. Indeed, concurrent deliveries of large quantities of flour probably affected sales more adversely than any other short-term factor.

For the second and third quarters analyzed, which respectively cover the years from 1802 to 1807 and from 1808 to 1814, there are no obvious statistical relationships between price movements in Havana and Philadelphia. Cuban prices varied widely, from a low of $12 in March 1807 to an all-time high of $56 in September 1808. Despite the United States embargo having been in effect since December 1807, prices in Havana did not peak for another several months. Contact had not effectively ceased, it appears, until the end of 1808 when Cuban merchants requested provisions and vessels alike, and island inhabitants reportedly turned to locally grown
roots and vegetables. As soon as the embargo was lifted, dozens of American ships raced to Havana. Within weeks (April 1809), flour sold at a mere $1.8 per barrel. Further disruptions occurred during the War of 1812 but were never as severe as those contemporaneous with Jefferson’s embargo. These two Anglo-American factors, it appears, proved far more damaging than the myriad commercial regulations the Bourbons tried to enforce.

The fourth quarter in the series comprises the period from 1815 through 1824. Cuban quotations never approached the peaks of the preceding two periods. Furthermore for the first and only time flour prices in Havana and Philadelphia tended to move in the same direction; that is, they rose and fell together. These trends, along with the stabilized patterns of vessel traffic discussed above, suggest that sustained peace brought a closer integration of the respective flour markets. In other words, the link between Philadelphia and Havana was normalized once the fighting had ended and essentially peacetime trading conditions prevailed.

In some ways the Cuba market held even greater significance for Philadelphia after the Napoleonic Wars. Indeed by the end of the second decade of the nineteenth century Cuba remained one of the few routes on which Philadelphia’s outbound traffic had not registered either an absolute or a relative decline. Rather, Havana and the outports continued to function as ready outlets for domestic produce and, to a far lesser extent, for reexported goods. In comparative terms, Philadelphia’s ties to Cuba were on the order of three times stronger than the nation’s as a whole. In 1821, Cuba was the declared destination of 6.7 percent of all domestically produced U.S. exports by value. However, for the Philadelphia customs district, the same figure is 18.6 percent, worth over half a million dollars. Moreover, of all U.S. domestic exports to Cuba in 1821, nearly 20 percent had been shipped through Philadelphia. The same trade in agricultural surpluses that had been nurtured since prerevolutionary times by Quaker city merchants still predominated more than half a century later. The regional agricultural savings emphasized in Price’s model were closely linked to the Cuba trade well into the nineteenth century.

Another extant set of local statistics from 1819 through 1827 suggests that the benchmark year of 1821 was typical. When the nine annual totals are combined, Cuba emerges as the leading destination of recorded domestic exports from Philadelphia. (See table 2.2.) Other regions of Spanish America—most notably Mexico—also figured quite prominently in Philadelphia’s outbound trade. However, each of these hemispheric destinations received a far larger proportion of reexports than Cuba did. Rankings by value of total exports (that is, domestic exports plus reexports) reveal that only China outranked Cuba, and it did so overwhelmingly on the strength of reexports. (See tables 2.3 and 2.4.) Again Spain’s “ever faithful isle”
Table 2.2. Recorded Total Value (Dollars) of Domestic Exports from Philadelphia to Principal Foreign Trading Partners, 1819-27

<table>
<thead>
<tr>
<th>Rank</th>
<th>Trading Partner</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Cuba</td>
<td>4,855,633</td>
</tr>
<tr>
<td>2</td>
<td>England</td>
<td>4,398,736</td>
</tr>
<tr>
<td>3</td>
<td>Danish West Indies</td>
<td>2,398,736</td>
</tr>
<tr>
<td></td>
<td>[Spanish American nations]</td>
<td>[2,631,632]</td>
</tr>
<tr>
<td>4</td>
<td>Spanish American colonies</td>
<td>1,480,428</td>
</tr>
<tr>
<td>5</td>
<td>Brazil</td>
<td>1,465,190</td>
</tr>
<tr>
<td>6</td>
<td>Haiti</td>
<td>1,399,716</td>
</tr>
<tr>
<td>7</td>
<td>Other Spanish West Indies</td>
<td>1,330,744</td>
</tr>
<tr>
<td>8</td>
<td>Gibraltar</td>
<td>1,274,858</td>
</tr>
<tr>
<td>9</td>
<td>British West Indies</td>
<td>1,025,349</td>
</tr>
<tr>
<td>10</td>
<td>China</td>
<td>1,022,022</td>
</tr>
</tbody>
</table>

Source: Hazard’s Register of Pennsylvania 2 (October 1818), 204–5.

Each of the remaining thirty-five categories listed has a combined value for domestic exports of under $1 million for these nine years. Many of these individual categories reflect changes in political sovereignty in Spanish America during this interval. For example there are no figures for “Spanish American Colonies” after 1824 while separate listings for Mexico, Colombia, Peru, Chile, and Buenos Aires begin that same year. If these separate listings are combined as “Spanish American nations” (as above), the domestic exports sent from Philadelphia amount to $2,631,632, placing them fourth on the above list.

seemed a particularly appropriate market for Philadelphia and its grain-producing hinterland, not only according to Jeffersonian political economy but also according to longstanding patterns of commercial exchange.36

Over time, however, such persistent and deepening reliance on Havana and other Cuban outlets affected Philadelphia adversely. Yet this is not because these markets were stagnant, as Anglo-Americanists routinely assume. Rather, recent research by Caribbeanists convincingly demonstrates that the size and wealth of Cuba’s population continued to grow well into the nineteenth century.37 As far as demand is concerned, then, this story is dynamic and multi-faceted. In the early 1790s Havana and its environs were able to shift most local resources into sugar production, in large part because of a sure and steady supply of foodstuffs from Pennsylvania. The rapidly expanding white and black populations, the annual influx of thousands of silver pesos from New Spain, as well as the de facto loosening of Bourbon commercial restrictions during wartime, made Cuba ever more attractive to merchants on the American mainland.

Coinciding with the island’s sugar revolution, the opening of Spanish imperial trade to neutrals in 1797 proved to be a watershed event. Before then, a small circle of Philadelphia flour dealers, men who cleverly ex-
Table 2.3. Recorded Value (Dollars) of Total Exports from Philadelphia to Principal Foreign Trading Partners, 1819–27

<table>
<thead>
<tr>
<th>Rank</th>
<th>Trading Partner</th>
<th>Value</th>
<th>Percentage of Reexports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>China</td>
<td>12,837,583</td>
<td>92</td>
</tr>
<tr>
<td>2.</td>
<td>Cuba</td>
<td>7,605,609</td>
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</tr>
<tr>
<td>3.</td>
<td>England</td>
<td>6,032,265</td>
<td>27</td>
</tr>
<tr>
<td>4.</td>
<td>Spanish American Colonies</td>
<td>5,155,495</td>
<td>71</td>
</tr>
<tr>
<td>5.</td>
<td>Mexico</td>
<td>4,772,453</td>
<td>80</td>
</tr>
<tr>
<td>6.</td>
<td>Danish West Indies</td>
<td>4,772,453</td>
<td>42</td>
</tr>
<tr>
<td>7.</td>
<td>Hanse towns</td>
<td>4,766,367</td>
<td>84</td>
</tr>
<tr>
<td>8.</td>
<td>[Spanish American nations]</td>
<td>3,440,533</td>
<td>51</td>
</tr>
<tr>
<td>9.</td>
<td>Gibraltar</td>
<td>3,005,791</td>
<td>57</td>
</tr>
<tr>
<td>10.</td>
<td>Haiti</td>
<td>2,320,055</td>
<td>39</td>
</tr>
<tr>
<td>11.</td>
<td>British East Indies</td>
<td>2,279,501</td>
<td>74</td>
</tr>
<tr>
<td>12.</td>
<td>Holland</td>
<td>2,213,418</td>
<td>87</td>
</tr>
<tr>
<td>13.</td>
<td>Brazil</td>
<td>2,121,042</td>
<td>31</td>
</tr>
<tr>
<td>14.</td>
<td>Other Spanish West Indies</td>
<td>2,037,560</td>
<td>34</td>
</tr>
</tbody>
</table>

Source: Hazard's Register of Pennsylvania 2 (October 1828), 204–5.

Each of the remaining thirty-two categories listed has a combined value for total exports for these nine years of under $2 million. Five of these categories are combined as "Spanish American nations"; in this instance Mexico is not included since it already appears in the rankings.

exploited religious, familial, and bureaucratic ties, had dominated the Cuba route. Of course they were best positioned to reap the first and fastest profits from the escalating demand for provisions and manufactured goods. However, opportunities in Havana were so great by the turn of the century that the ranks of American exporters swelled both in Philadelphia and in neighboring rival ports. For the next several decades Cuba depended upon the United States not only for more foodstuffs but for more reexports, shipping services and, following the independence of Mexico, capital for investment in the sugar industry. Yet, in general, Philadelphians failed to react effectively to the more diversified island market. The old-time suppliers either died or left the trade while a larger number of smaller shippers continued to send cargoes composed mainly of provisions. In contrast, New York merchants were in a strong position to service the enhanced needs of the Spanish colony. Like Philadelphia, New York possessed a rich agricultural hinterland; unlike Philadelphia, New York aggressively pursued close trading connections with Europe which enabled it to function not only as a distribution point for regional produce but as an international entrepôt. By the early 1820s Cuban hacendados could deal with northern
Table 2.4. Recorded Value (dollars) of Domestic Exports and Reexports from Philadelphia to Cuba, 1819–27

<table>
<thead>
<tr>
<th>Year</th>
<th>Domestic Exports</th>
<th>Reexports</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1819</td>
<td>NR</td>
<td>[760,959]*</td>
<td>760,959*</td>
</tr>
<tr>
<td>1820</td>
<td>172,792</td>
<td>205,486</td>
<td>378,278</td>
</tr>
<tr>
<td>1821</td>
<td>559,183</td>
<td>[680,144]*</td>
<td>1,147,584*</td>
</tr>
<tr>
<td>1822</td>
<td>592,417</td>
<td>301,287</td>
<td>893,704</td>
</tr>
<tr>
<td>1823</td>
<td>694,869</td>
<td>434,053</td>
<td>1,128,922</td>
</tr>
<tr>
<td>1824</td>
<td>599,736</td>
<td>388,500</td>
<td>988,236</td>
</tr>
<tr>
<td>1825</td>
<td>666,118</td>
<td>324,955</td>
<td>991,073</td>
</tr>
<tr>
<td>1826</td>
<td>628,336</td>
<td>459,479</td>
<td>1,087,815</td>
</tr>
<tr>
<td>1827</td>
<td>942,182</td>
<td>370,976</td>
<td>1,313,077</td>
</tr>
</tbody>
</table>

Totals 4,855,633 2,749,976 7,605,609

source: Hazard's Register of Pennsylvania 2. (October 1818), 204–5.

*aNR = not recorded.
bValues for "Other Spanish West Indies"; "Cuba" became a separate category at some point during 1820. Thereafter values for other Spanish West Indies never exceeded more than a few thousand dollars. Bracketed figures are not included in any of the totals.

firms that offered a complete package of services including financing, transportation, and marketing of tropical products; access to manufactured and luxury goods; as well as increased supplies of food. Given the alternatives, it seems hardly a coincidence that New York, not Philadelphia, emerged as the center of the foreign sugar trade.40

A final factor on the supply side illustrates the eventual consequences of Philadelphia's adherence to traditional patterns of exchange with Cuba following the Napoleonic Wars. Because flour prices fell in Pennsylvania beginning in the late 1810s, the terms of trade turned against Philadelphia. Between 1803 and 1807 Philadelphia had exported 221,136 barrels of flour valued annually at $1,647,624 on average per annum. By 1821 Philadelphia exported 219,013 barrels of flour valued at $1,025,082. In other words, while exporting nearly the same quantity of flour in the later year, Philadelphia earned $622,542 a year less, a difference of some 47 percent.41 This figure serves as an approximate measure of how changes in the terms of trade from the war years now benefitted partners like Cuba at the same time that they cost Philadelphia. Without the disproportionately high profits of the neutral trade of the war years, flour merchants, shippers, millers, and other Philadelphians could not accumulate capital as rapidly as they once had. So lucrative and secure in the last quarter of the eighteenth cen-
tury, the Cuba trade had diverted Philadelphia from extensive participation on other routes, especially those involving cotton and European manufactures. Yet this early success became a liability once the Havana market became too lucrative for other American competitors to ignore. Just as predominance in the Cuba trade paralleled the ascendancy of Philadelphia in the Revolutionary Era, changes in the structure of demand in Havana after 1800 contributed to Philadelphia’s decline.

NOTES


5. The clearances data for Philadelphia were compiled from two sources: Bureau of Customs, French Spoliation Claims, District of Pennsylvania, Outward Books, 1793–1801, Record Group 36, National Archives, Washington, D.C.; Arrivals and Clearances of Vessels, Philadelphia, 1802–22, section 3, vols. 2–5 (Outward), Maritime Records of the Port of Philadelphia (Unpublished carbon copies of typed transcripts prepared by the WPA, sponsored by the Pennsylvania Historical Commission, 1942), Library of Congress, Washington, D.C. For a complete assessment of the accuracy and utility of these sources, see Salvucci, “Development and Decline,” 242–47. Obviously they do not include illegal or contraband voyages; however, such traffic would only augment
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the totals for Cuba. Some conflating of the terms "Philadelphia" and "Pennsylvania" and "Havana" and "Cuba" is inescapable due to changing definitions of categories in the sources.

6. A regression was run on the figures in the column "Cleared for All Cuba" in table 2.1. The estimated equation is: log sailings = 3.11 + .04 time + .62 neutral trade where time is a time index set at 1 for 1794 and neutral trade is a dummy variable set at 1 for years of the neutral trade. The estimated coefficients are both significant at the .99 percent level. The .4 percent rate of change is of course the coefficient of the time index.

7. Between May 4 and August 13, 1808, some twenty-one vessels listed Cuban destinations in the official customs records referred to in note 5. From September through December at least six additional ships cleared for the Spanish island. Most likely some Philadelphia merchants had received permission from the U.S. Treasury to dispatch ships to Cuba to pick up property (already purchased sugar and other cargoes). Additional evidence suggests that flour and similar goods were carried southward: Iriarte y Lasa to Girard, Havana, June 14 and December 29, 1808, Stephen Girard Papers, Letters Received, roll 43, American Philosophical Society, Philadelphia. George Terry Sharrer, "Flour Milling and the Growth of Baltimore, 1783-1830" (Ph.D. diss., University of Maryland, 1975), 136, notes that 594 special licenses—mostly for exports to the West Indies—were granted to U.S. merchants between December 1807 and October 1808.

8. See table 2.1. Note the steady increase in departures for the last six years in the series.

9. In 1822, for example, fifty ships cleared Philadelphia for Havana; Santiago followed with seventeen while Matanzas took fourteen, and a handful went to each of the other ports. Such diversification of clearances from Philadelphia fits nicely into the economic and demographic patterns discussed in Franklin W. Knight, "Origins of Wealth and the Sugar Revolution in Cuba, 1750-1850," Hispanic American Historical Review 57, no. 2 (1977): 231-53.

10. The procedure for calculating traffic by quarters is explained in Salvucci, "Development and Decline," 310-11. Departures data are drawn from the sources in note 5. Recorded arrivals data are complete only for the year 1790, 1792, and 1798 through 1803; they are compiled from the Impost Books of the Collector of Customs at Philadelphia, 1789-1804, National Archives and Records Service, Washington, D.C., Microcopy T-155, rolls 1-6.

Evidence on the timing of the sugar harvest comes from [Robert F. Jameson] Letters from the Havana during the Year 1820: Containing an Account of the Present State of the Island of Cuba and Observations on the Slave Trade (London: J. Miller, 1821), 121. Moreover David E. Dauer, "Colonial Philadelphia’s Intraregional Transportation System: An Overview," in Glenn Porter and William H. Mulligan, Jr., eds., Working Papers from the Regional Economic History Research Center 3, no. 3 (1979): 7 and 25, notes that fall was the peak period for trampers carrying wheat and flour from the hinterland and that freight volumes into Philadelphia more than tripled between midsummer and late fall.

11. Salvucci, "Development and Decline," chap. 4, offers a full analysis of Philadelphia’s total outbound traffic as well as a description of the sampling techniques employed.

12. Salvucci, "Development and Decline," chap. 4, especially 200-205, 216-18. The years ranked include 1795, 1800, 1805, 1810, 1815, and 1820. Neither Philadelphia nor perhaps even the United States as a whole had to depend too heavily upon British West Indian outlets in the Napoleonic Era. Any costs associated with leaving the British Empire were at least partially offset by increased demand for American provisions in neigh-

13. The dollar value of the American flour was $69,896 according to Roy E. Nichols, "Trade Relations and the Establishment of the United States Consulates in Spanish America, 1779–1809," Hispanic American Historical Review 8 (August 1933): 192. "Spanish West Indies" may be taken as a valid proxy for American trade with Cuba before 1821 since balances with Puerto Rico and Santo Domingo were minimal whenever specified.


For an indication of how duties were pegged in Cuba, see List of New Regulated Duties for Imports into Havana, Havana, May 1, 1809, Girard Papers, roll 224. Ramón de la Sagra, Historia económic politica y estadística de la Isla de Cuba (La Habana: Impr. de las viudas Arazoza y Soler, 1831), 204, confirms the dominance of American shipping in Cuba. Figures from Lowrie and Clarke, 2: 565–6, suggest that U.S. departures to and arrivals from Cuba each accounted for 96 percent of total tonnage recorded for this route in 1821. Of all recorded American tonnage that entered the United States in that year, 14 percent came from Cuba: of all registered departing tonnage, 13 percent declared for Cuba.

16. Sugar imports into the United States from Cuba are calculated from data by volume from Lowrie and Clarke, 2: 652. With these sources, there is no way to determine how much Cuban sugar entered Philadelphia.

17. For the 1787 estimate see Arthur P. Whitaker, "Reed and Forde: Merchant Adventures of Philadelphia," Pennsylvania Magazine of History and Biography 61 (1937): 244-45. Alexander von Humboldt, The Island of Cuba, trans. J. B. Thrasher (New York: Derby and Jackson, 1865), 296, maintains that nearly one and a half million pesos departed Cuba in 1823. Contemporaries recognized how the situado, or silver shipments sent from New Spain to meet government expenditures in Cuba, ultimately benefited U.S. traders. Timothy Pitkin observed in his Statistical View of the Commerce of the United States (Hartford, 1817), 192: "It is from this quarter [the Spanish West Indies and American possessions] that the United States obtains large quantities of the precious metals, by which they are enabled to carry on a trade with China and the East Indies, as well to pay the balances due, in Europe and elsewhere."

18. Recurring problems with specie are discussed in Dobignie to Girard, Havana, January 10, February 15 and 23, April 19, 20, and 29, May 3, June 22, July 15, August 30, September 7, 18, and 23, 1800, Girard Papers, rolls 21–23. On more than one occ-
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the usually optimistic Dobignie urged Girard to abandon his Cuban trade once all collected proceeds were removed.

19. Marine Blotters (bound photocopies), Insurance Company of North America Archives (Philadelphia), vol. C, 15-19; vol. D, 180. Premiums on specie cargoes were set at 3.5 or 4 percent. In 1800 Girard's correspondent did not think it prudent for an individual shipment of specie to exceed $20,000. During that difficult period he was sometimes forced to load only half that amount at freights as high as 9.5 percent. Dobignie to Girard, Havana, April 20 and June 22, 1800, Girard Papers, roll 22.

The Spanish consul in Philadelphia described how Francis Brevil, a ship captain often employed by John Leamy, concealed over $13,000 in sugar boxes leaving Cuba. Foronda to Soler, Philadelphia, September 3, 1806, Archivo General de Indias (Seville) Indiferente General, leg. 1603. Another letter preserved with Foronda's correspondence mentioned a ship returning to the United States from Matanzas in ballast with "12,000 pesos en plata." [Unsigned] copy of a letter from the Consul in Charleston to the Minister Plenipotentiary in Washington, Charleston, December 3, 1802, Archivo General de Indias, Indiferente General, leg. 1604.


22. Francisco de la Isla, Razon de los buques que han entrado en este Puerto con harinas, Havana, June 30, 1796, Archivo General de Indias, Santo Domingo, leg. 2191.


24. Girard's correspondents referred to each of these problems in turn: Dobignie to Girard, Havana, February 10, 1799, Girard Papers, roll 20; Iríarte y Lasa to Girard, Havana, April 4, 1809, roll 44; Iríarte y Lasa to Girard, Havana, August 9, 1810, roll 47.

25. Over one hundred separate selling prices for flour in Havana, representing eighty-eight distinct months, were collected from Girard's correspondence. These were paired with data from "Price of Flour in the Philadelphia Market, from 1784 to 1828," Hazard's Register of Pennsylvania 2 (1828): 221; the source for Hazard's chart was the Philadelphia Price Current.

26. This concession allowed Mopox to pay but a fraction of the duties usually levied on imported flour. It did not, however, effectively eliminate all competition from American suppliers. The Mopox monopoly is mentioned in Nichols, "Trade Relations," 296, 298, 305; it is harshly condemned by Moreno Fraginals, The Sugarmill, 43-44. While the latter's understanding of the markup and movement of prices is based on an implausibly low selling price of $1.50 per barrel in Philadelphia, his account does provide a good identification of people involved.

27. See Moreno Fraginals, The Sugarmill, 43, for reference to the "moldy merchandise." He estimates that, in anticipation of a blockade, Mopox's agents had transported over 47,000 barrels of American flour to Havana by August 1798. Iríarte y Lasa to Girard, Havana, August 9, 1810, Girard Papers, roll 47, offers the following perspective on the local market: "The only people who buy flour are Bakers; they are perfectly united,
and form a body; and the foreman of that body arregulate [sic] the prices; should he not be pleased to buy from us, we would be forced to put it in store; and once in store, it has bad resultate [sic]; it never will be the case with other articles, because everybody comes to buy what they want."

28. Dobignie to Girard, Havana, July 15 and September 18, 1800, Girard Papers, rolls 22 and 23. Access to Cuba was officially restricted again in 1799. However, it was not until the specie shortage occurred that effects on the flour market were discerned.

29. During this period American ships sometimes sailed to Cuba in convoys. While this practice offered increased protection against pirates and belligerents, it obviously caused problems once the destination was reached. Referring to the 150 vessels, Girard's correspondent observed: "They will all ruin themselves, for there is no business. I wager there will be a loss of more than 30 percent on the average on each cargo" (emphasis in original): Dobignie to Girard, Havana, September 23, 1800, Girard Papers, roll 23.

Multiple arrivals were blamed for depressed prices on many other occasions: Dobignie to Girard, Havana, February 10, 11, 15, 1799, Girard Papers, roll 20; Dobignie to Girard, Havana, February 23, 1800, roll 21; Gimbal to Girard, Havana, November 29, 1800, roll 23; Carpenter to Girard, Havana, April 12, 1802, roll 24; Iriarte y Lasa to Girard, Havana, April 16, 1809, February 9 and July 20, 1810, November 22, 1811, May 11, 1812, April 4, 1818, rolls 44, 46, 47, 49, 51, 66. Unfortunately the price series is not detailed enough to match movements with ship arrivals.

30. Iriarte y Lasa to Girard, Havana, December 29, 1808, Girard Papers, roll 43. The American consul in Santiago thought the roots and vegetables lessened suffering there compared to what other parts of the West Indies were experiencing. Maurice Rogers to James Madison, Santiago de Cuba, January 21, 1809. Despatches from United States Consuls in Santiago de Cuba, 1799-1906, National Archives, Microcopy T-55 (Washington, D.C., 1959), roll 1, vol. 1.

31. Iriarte y Lasa to Girard, Havana, April 7 and 22, 1809, and October 29, 1812, Girard Papers, rolls 44 and 51. The evidence in the prices series for 1813 is too skimpy for close analysis.

32. Between 1815 and 1824, Philadelphia prices in the preceding month account for 60 percent of the variance in Havana prices ($r^2 = .6$).


34. U.S. figures for 1821 are calculated from Lowrie and Clarke, 2:575, 603-4. See tables, 2.2, 2.3 and 2.4 for the data for Philadelphia. Only England outranked Cuba as a market for the region's domestically produced exports.

35. Table 2.3 indicates that, whereas re-exports accounted for 92 percent of the value of Philadelphia's total trade to China, they represented only 36 percent of the value of that port's trade to Cuba.


38. Salvucci, "Development and Decline," chap. 3.

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