

CHAPTER IV  
STAPLES FACTORS

The general organization of this analysis of staples factors of land acquisition follows the logic of Stanley Lebergott's essay "The Demand for Land: The United States, 1820-1860."

Expected Income from Land

"Expected income over the long term depends on the real price of the land's products" (Lebergott 197). As cotton was by far the major product of the land in the antebellum South, Lebergott proxied expected income using the deflated price of cotton in Charleston. "As real cotton prices rose so did land sales ( $t=3.7$ )" (201). Gavin Wright developed an alternative demand function for new land and likewise found "significant elasticity with respect to the cotton price" (116).

This should come as no surprise as most economic historians who have examined the antebellum era have noted the great role that cotton played in the development of the United States. "The vicissitudes of the cotton trade--the speculative expansion of 1818, the radical decline in prices in the 1820's and the boom in the 1830's--were the most important influence upon the varying rates of growth of the economy during the

period [1815-1860]" (North 67). As summarized by Walton and Robertson: "It was of course the expected return on cotton that brought the great, irregular surges of movement into the southwest, and [as shown in a graph by North (124)] there is a close correlation between the price of cotton on the one hand and the volume of public land sales in Alabama, Florida, Louisiana, Mississippi, and Arkansas on the other" (199).

Any comparable study for the colonial Chesapeake suffers because tobacco price information is very meager and is often contradictory. The only series which can be used judiciously for the time period in question is Russell R. Menard's series of farm prices of Maryland tobacco 1659-1710 (1973b,85). He documents well the problems involved in developing such a series (1973b,80-81). However, using "a consistent and comprehensible source"-evaluations in inventories of estates-- "there is every reason to believe that these evaluations reflect the current market value of tobacco" (1973b,82).

Menard believes that "although this price series is based on Maryland materials, there is no reason to assume that it cannot also be applied to Virginia" (1973b,84). He recognizes, though, that sweet-scented tobacco "brought prices as much as 50% higher than those paid for the coarser oronoco leaf" of Maryland (1973b, 84). The Rutmans showed that Middlesex County tobacco prices were very different as the county shifted from oronoco to sweetscented tobacco. "In the 1670s the two areas [Maryland and Middlesex] were about equal, but by the 1690s Middlesex tobacco prices were roughly 130 percent of Maryland prices while in the first decade of the new century the differential neared 150

percent." Thus "planters moving to sweetscented in the 1660s and 1670s were spared the price collapse of the 1680s" (1984,5). However, as the Rutmans note, "there was a limit to which the sweetscented supply could grow inasmuch as the variety had a restricted geographic range in the Chesapeake. While oronoco would grow anywhere, sweetscented prospered only on the peninsulas between the James and Rappahannock rivers, an area largely settled and in production by 1700" (1984,6).

The effect of the introduction of sweet-scented tobacco on demand for land is hard to determine. The area "between the James and Rappahannock rivers" is quite large and the timing and distribution of sweet-scented tobacco production is not very certain. Certainly if Middlesex is any example then sweet-scented tobacco had almost no effect on new land acquisition since relatively little new land was left to be taken up after sweet-scented tobacco was brought into the county in the early 1660s. York, Warwick, and Elizabeth City Counties on the Lower Peninsula had even less land left to take up by the 1660s. However, the upper sections of the Lower and Middle peninsulas were expanding rapidly during this time period. Was this upper region settled with the intention of growing sweet-scented or oronoco tobacco? "Old" Rappahannock County which spread on both sides of the Rappahannock River showed the highest rate of land acquisition in Virginia in the 1660s, tapering off in the 1670s, but the rate was actually higher on the north side of the river where supposedly sweet-scented was not grown (13,390 acres/yr vs 9,350 acres/yr for the years 1662-1672, excluding all patents for which location was uncertain). Accomack and Northampton Counties on the

Eastern Shore, where oronoco was grown, had only slightly lower rates of land acquisition during this period (9,650 and 7,620 acres/yr respectively). South of the James River, where only oronoco was grown, and Gloucester County, where sweetscented was grown, both had lower land acquisition rates which continued steadily through the 17th century.

A comparative analysis of land acquisition in the sweetscented counties using Menard's oronoco price series and a sweet-scented price series provided by Lorena Walsh (based mostly on York County data for the 17th century) showed that Menard's oronoco series produced a more statistically significant correlation. The statistical difference probably reflects the scanty price data presently available on sweet-scented tobacco, but could reflect the primary importance of oronoco tobacco during the land acquisition phase of the Peninsula and Middle Peninsula.

Since the effect of sweet-scented tobacco on land acquisition is uncertain (and until better data is developed), Menard's oronoco tobacco price series will serve as the best proxy for Chesapeake land acquisition studies. Figure II is a plot of the annual Virginia new land patent acreage and Maryland farm tobacco prices, and like North's plot for the antebellum South (124), the two curves show a great deal of similarity. The upturn in new land acquisition after 1700, that in Figure I seemed correlated with a sharp decline in inverse population density, here seems strongly correlated with a sharp rise in tobacco prices.

Unlike North and Wright, Lebergott uses a "deflated" price of cotton in his analysis. Certainly any study of prices as a proxy for expected income should consider the effect of inflation or deflation. "Farming

provided a cushion to buffer people in times of recession...but most colonists, to a greater or lesser extent, bought and sold in the marketplace and thus felt the impact of the cycles of expansion and contraction" (McCusker 66). Unfortunately, there are no generally accepted consumer price indices for calculating deflated tobacco prices for the time period in question. Those indices that do exist are constantly being modified to reflect new data. However, all of the consumer price index series in general use show strong linear trends.<sup>1</sup> Since there is disagreement about the correct consumer price index, nominal prices rather than deflated prices were used for the bulk of this study, but deflated prices (using an index provided by Lorena Walsh of the Colonial Williamsburg Foundation) were run as an alternative test case.

#### Expected Capital Gains

"The value of farm land may well rise with the real price of crops. But capital gains in land can also derive from changes in the price of complementary services. Most notable of these is transport" (Lebergott 198). To index the improvement in transportation, Lebergott creatively (perhaps questionably) employs the federal expenditure on the Mississippi river system (199). Overall, for the late 17th century, expected capital

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<sup>1</sup> Thus in models where a separate time trend is included with tobacco prices, t-statistics on tobacco price are not changed by the use of deflated prices; the effect of deflated prices merely shows up in the significance of the time trend. See Appendix II for explanation of the importance of t-statistics.

gains should have declined as patents were sought further and further from navigable streams, thus increasing transportation costs. "Difficulties of transport as expansion moved westward constituted another influence tending to increase demand for land in more accessible districts" (Gray 1:404). Walsh shows that "planters showed little interest in acquiring holdings in the interior" away from direct water access (1977,405). "The bulkiness of the leaf in shipment made easy access to water carriage most desirable" (Wyckoff 87) and thus interior lands would have been less valuable. However, if increasing land transportation costs were more than offset by decreasing water transportation costs (due to more efficient hogshead packaging, reduced port times, economies of scale, etc.), then it is possible that expected capital gains could have risen during this time period.

In Wyckoff's study of Maryland land values, he finds that values for both improved and unimproved land rose steadily throughout the 17th century (86). However, his focus seems to be strictly "waterfront properties," (87), and he does not provide any breakdown by county, water access, land policy, demographic growth, etc. A better understanding of these effects is revealed in a study of Surry County, Virginia, a growing 17th century county quite representative of colonial Virginia. Kevin Kelly found Surry's land prices much lower than Maryland's, except for a curious surge in the 1670s (see Figure III). The relationship between this price surge and new land patent acreage is remarkable. When new land was being patented land prices remained flat; but when new land was not being patented, land prices rose, dramatically so in Surry County in

the 1670s when the population was rising rapidly. This long hesitation in new land acquisition in Surry County was unusual in its duration although many counties showed similar hesitations during the years surrounding Bacon's rebellion. Whatever the reason for the hesitation, when land patents resumed, land prices came back down. When land patents again declined in the 1690s, land prices began to rise again, but this time at a much slower rate and to a much lower level, probably reflecting the reduced desirability of remaining lands further from water transport. Similar rises in land prices at the end of patenting appear in other counties in the Chesapeake (for example Charles County [Walsh,1979,402-410]).

Wyckoff shows further that the net value of improved land over unimproved land was fairly stable in the late 17th century: 12 pounds of tobacco per acre in the 1670s; 11 in the 1680s; 13 in the 1690s (86). Thus, overall there seems to be little change in capital gains to land acquisition in the 17th century. As population increased, more land was made available, keeping the price of land quite stable in developing regions. A man could make a profit improving his homestead, selling it, and moving on, but there was little more advantage in the 1660s than 1690s.

#### Supply Price of Land

As in Lebergott's analysis, there were three elements in the price of land in the colonial Chesapeake: explicit price, implicit price, and

terms of sale. The explicit price was one headright for each grant of fifty acres (or the payment of a treasury right after 1699), plus some substantial fees.

Before 1666, surveyors fees were restricted by colonial statute to "twenty pounds of tobacco for every one hundred acres laid off" with a minimum fee of one hundred pounds of tobacco. After 1666, the fees were raised to forty pounds for each one hundred acres with a new minimum of four hundred pounds of tobacco. In addition, if the surveyor was "compelled to go so far from the place where he resided as to render return impossible in a day,...he was allowed thirty pounds of tobacco for every twenty-four hours included in the period of absence from home. If, to arrive at the place where the new plantation was to be laid off, he was forced to travel by water, the expenses of his transportation were to be borne by the person employing him" (Bruce 547-548). For the entire time period 1660-1706 the secretary's fees for drawing and recording a patent was 80 pounds of tobacco with an additional 30 pounds for a personal copy (Hening 1-463;2-144;2-355;4-60). During the governorship of Francis Lord Howard in the 1680s a fee of two hundred pounds of tobacco was charged for attachment of the seal of the Colony but this was discontinued in 1689 (Bruce 549-550). Fortunately for the small planter, these fees were not due until after the first crop of tobacco was produced, at which point it was collected by the Sheriff of the County (Beverley 278; Bruce 547-548).

The implicit price differed from explicit price because, as many historians have noted, headrights were a highly marketable commodity



(Menard 324). Morgan found, in a study of six counties, that "a majority, though a small majority, of the [headright] certificates were used by the persons who initially obtained them" (363). Morgan believes that the great land acquisition surges in Virginia were financed by "drawing on a reservoir of unclaimed headrights. As the population of the colony rose, whether from a decline in death rate, from an increase in birth rate, or from an increase in immigration, it required no great acumen to foresee that land, hitherto abundant and not highly prized, would rise in value. Those who operated on a large enough scale to plan ahead accordingly began to gather and claim headrights. It did not cost them much--the going rate in the 1650s seems to have been 40 or 50 pounds of tobacco per headright. The rights for a thousand acres would have cost no more than a couple of cows or a couple of featherbeds" (368-369).

Morgan's estimate of the cost of headright certificates is based on a meager sample of two probate records, but it is not unreasonable. By 1692, according to contemporaries Hartwell, Blair, and Chilton, the "clerks in the office of the Secretary of the Colony [fell] into the grossly illegal habit of selling these rights to all who would pay from one to five shillings for each right, without any pretension being made that the buyer had complied with the law by bringing in immigrants himself or by purchasing certificates from persons who had done so" (Bruce 523-524). At a pence per pound of tobacco, these fees are in line with Morgan's estimates of the market cost of headrights. Similarly, in 1699, the treasury right was set at "five shillings paid in coin" for each right of fifty acres (Voorhis 90).

The calculation of land price is further complicated by the widespread abuse of the headright system. Besides the clerks' acceptance of fees mentioned above, others have noted fictitious headrights, seamen or frequent travellers claiming themselves multiple times, and shipmasters and importers claiming rights for the same servants. According to Governor Spotswood, "for one individual who was brought over to Virginia, two hundred acres were frequently obtained by different persons" (Bruce 522). "The perversion was pushed so far that head rights were granted upon the presentation of lists of names copied from old books of record" (Bruce 523).

As Bruce has noted, "these abuses crept in with the general consent" (524). The demand for land was greater than the supply of headright certificates. Using the computer data base to search for common name patterns among headrights, I calculate that approximately thirty percent of the Virginia headrights listed in the land patents were duplicates. A third of this number are easily identified as the serial form of abuse mentioned by Bruce, where names are apparently copied from "old books of record." The other two-thirds are estimated from the percentage reappearance of names so uncommon as not likely to be different people with the same name.<sup>2</sup> Contrary to most historians, though, I find this abuse dominant, not just in the later years of the 17th century, but from the mid-1660s to 1706. Extension of the patent data base before 1660 undoubtedly would help discover additional abuse in earlier time periods.

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<sup>2</sup> See Appendix I for explanation of namecoding system and methods employed to identify headright abuse.

The abuse was generally spread through all counties and among all types of patentees, although large patentees had a slightly greater proportionate share of the abuse.

The total cost for patenting five hundred acres (an average patent size) could thus amount to over a thousand pounds of tobacco. With annual labor productivity averaging about 1600 pounds of tobacco per person (Menard,1980,145), this represented a substantial part of a small planter's first tobacco crop. There is no indication, however, that the explicit or implicit costs of land acquisition varied during the time period 1660-1706 (except for the increase in surveyor's fees in 1666).

#### Quality of Land: Indian Cessions

Lebergott believes that "each additional Indian cession [of land]...improved the quality of federal land, thus implicitly cutting its price," as fears of Indian attack were reduced (Lebergott 201). As Indian tribes ceded land to the United States in the antebellum South, so was Indian land opened up to settlement in the colonial Chesapeake. In order to preserve the peace with the Indians and to keep the population of the colony as compact as possible, "except during the early years of the seventeenth century, there was always a limit beyond which settlement was not legally allowed to proceed" (Voorhis 73). As Gray notes, "although the irrepressible squatter might penetrate areas still within the scope of Indian tribal rights, the majority of settlers were compelled to await extension of the frontier through successive treaties

of cession" (1:404).

The only major Indian acquisition during the time period under study was in 1688 when "the tribes residing in Pamunkey Neck and on the south side of Blackwater River, offered a petition to the Assembly, in which they urged that all lands in their vicinity they were unable to use should be granted to the English, not only as a means of protection to the petitioners, but also a relief to them in their indigent conditions" (Bruce 1:499). A study of the early land acquisition phase of the Pamunkey Neck offers an excellent example of the effect such Indian acquisitions had on both speculation and general land acquisition.

Lying at the head of the York River, between the Mattaponi and Pamunkey Rivers, the Pamunkey Neck became part of King & Queen County when that county was formed in 1691. On 25 October 1695, four colonial leaders: Col. Edward Hill; Col. Richard Johnson; Ralph Wormeley, Esqr., Secretary of Virginia; and Edmond Jenings, Esqr., patented a total of 22,595 acres, the first land in the Pamunkey Neck (Nugent 3:1-3). Unfortunately they had jumped the gun because King William had given first choice of 10,000 acres to the "Royall Colledge of William & Mary in Virginia" (Nugent 3:31). They were forced to surrender their land in October 1696, only to take up the same in October 1699. Thus an Indian cession in 1688 helped contribute to a peak in new land patent acreage in 1699. The opening up of land in the Pamunkey Neck directly contributed to the surge in land acquisition from 1699-1705, although tobacco prices were falling. King William County, formed in 1702 out of the Pamunkey Neck, was one the fastest growing counties in the early 18th century.

Quality of land considerations are not restricted to Indian cessions, but affect demand for land in all regions of the colonial Chesapeake. "Land values, of course, varied according to the grade of land in a particular area, especially in the distinction between upland and alluvial" (Gray 1:405). Walsh shows that transport and quality usually went hand in hand; lands which lacked direct water access also tended to be less suited to tobacco culture (1977,405,408). Thus, consideration of capital gains will not be based solely on transport, but must also take into account quality of land.