

Wearing the World: Globally Traded Textiles during the ‘Industrious Revolution’

Anne EC McCants
amccants@mit.edu
January 2009, Leyden

For presentation at the Fourth Flemish-Dutch conference on the economic and social history of the Low Countries before 1850

DRAFT ONLY – NOT FOR CITATION

The question of whether economic growth in general, and the rapid expansion of the Industrial Revolution period in particular, is led more by the forces of production or those of consumption has a long and distinguished history, going back at least as far as the period of the Industrial Revolution itself with the publication of Say’s Law in 1803. Say argued that the burden of growth lay on the side of production, because the very act of producing products generated the capacity for those products to be purchased. That is, aggregate supply will always create its own aggregate demand, guaranteeing that consumption will ever be the tail wagged by the dog of production. He held this to be true regardless of whether output is increased by greater inputs of capital or labor, or by better technique. This analysis of the problem has stood more or less dominant ever since with the notable, and relatively brief, period of exception generated by John Maynard Keynes’ work following the Great Depression, a moment when demand seemed to have failed to follow its natural duty. Moreover, it remains to be seen if the current global financial crisis will fully resuscitate the strength of consumption-led economic growth theories or not.

But even before the onset of recession last winter or the collapse of financial markets this fall, an important voice was calling scholars to pay greater attention to the independent forces of consumer demand. For increasingly historical work on the quantity and quality of people's possessions across the early modern centuries has turned up the anomaly of the expansion and increasing diversification of household possessions even at the same time that real wage series showed no particular improvements.

The most ambitious attempt to explain this anomaly has been put forward by Jan de Vries in a series of publications over the last decade and a half. He first laid out his theory of the 'industrious revolution' in his 1993 contribution to the magisterial collection of Porter and Brewer, Consumption and the World of Goods, and in his Presidential Address to the Economic History Association of that same year. Most recently he has published an expanded and fully documented book-length treatment.¹ de Vries posits that north-western Europe experienced a radical change in work habits across the early modern centuries, a change manifested in both longer hours of work per worker and the greatly expanded employment of new (that is mostly child and female) laborers whose work potential had been previously under-utilized, or at least under-reported and probably under-compensated, in home production. More significantly, he argues that this movement towards increased labor effort for the market occurred *in advance* of its much more famous (or perhaps infamous) cousin the Industrial Revolution. The 'industrious revolution', he says, yielded growth along Smithian lines: that is per capita growth was generated from the economies of market expansion and the concomitant increase in the capacity for specialization and a further division of labor. The Industrial Revolution itself, of course,

¹ Jan de Vries, "Between purchasing power and the world of goods: understanding the household economy in early modern Europe," in Roy Porter and J. Brewer (eds.), *Consumption and the World of Goods* (Routledge: London, 1993); "The Industrial Revolution and the industrious revolution," in *The Journal of Economic History*, Vol. 54, no. 2 (1994): 249-70; and *The Industrious Revolution: Consumer Behavior and the Household Economy, 1650 to the Present* (Cambridge University Press: Cambridge, 2008).

remains largely a story of technical progress and changes in the organization of production. But it would not be enough to just call upon an increased extraction of labor from the household to make de Vries' theory pathbreaking. There is no shortage of historical and sociological theories about the myriad ways over the centuries that labor has been forcibly put to use for the expansion of productive enterprises. What is so striking about de Vries' contribution is that by linking his 'industrious revolution' to the then still relatively new literature on the 'consumer revolution(s)' of the 17th and 18th centuries he could tell a radically different story about the *voluntary* release of that additional labor effort. Moreover, as Adam Smith himself so presciently suggested in the later 18th century, the resulting increase in the capacity for further specialization of labor would prove to greatly facilitate the technical advances that were to become the cornerstone of 19th century economic growth. Furthermore, this theory of an 'industrious revolution' could account for the hitherto yawning theoretical gap between the seemingly prolific expansion of the 'world of goods' as revealed in household accounts and probate inventories (not to mention in moral diatribes against the consumption vices of the middling and poor), and the economic historians' carefully constructed evidence of only slowly rising, if at all, real wages of adult male workers (largely drawn from the construction trades) before the second half of the 19th century. It was not wage power that made possible the feverish progress of ever more, and more varied, items of personal and household adornment so lovingly reconstructed by the art and cultural historians of this period. Rather it was the transfer of leisure time, however happily or uselessly (depending on your politics) it might have been employed in the pre-industrial past, first to the rigors of proto-industrial time and then to the even more rigid strictures of factory time. As Maxine Berg has so convincingly shown us, it was women, along with many of their children, who were in the vanguard of this labor migration.² But why would anyone voluntarily trade in their Saint

² Maxine Berg, "What difference did women's work make to the Industrial Revolution?" in Pamela Sharpe

Monday's, their multiple religious feast days, and the autonomy of the household rhythm for the foreman's clock and the 'dark Satanic mill'? If we are to believe that the allure of consumer goods was sufficient to effect such a startling transformation in the preferred work habits of humankind, as they have been made manifest across the long period documented by the historical record, we have to demonstrate that the new consumer goods were plausibly within reach of those members of society who stood to lose the most from the new labor regime. If the colonial groceries of tea, coffee, sugar and tobacco; dish wares and wall tiles made of porcelain and its many imitations; buttons, baubles and metal 'toys' of all varieties; and dress accessories and expanded wardrobes of new fibers and weaves, not to mention new dye colors and prints, were in fact all luxury goods, accessible to elites but not to those below them in station and resources, then de Vries' theory has no legs, and the mechanism of voluntary change must be found wanting. Given the weight of contemporary commentary that fought to preserve 'luxury' as a meaningful descriptor of goods only available to those of appropriate rank, coupled with the verdict of most economic historians that the early modern trading companies dealt largely in ephemera (although I have argued otherwise³), it is on the consumer side of de Vries' formulation where we will need to secure the strongest evidence.

It is in just such a pursuit of evidence that I have turned my attention to a remarkable collection of 18th century household inventories drawn up in Amsterdam by the Regents of the Municipal Orphanage, the Amsterdam *Burgerweeshuis* (hereafter referred to as BWH).⁴ Following the model set forth by the so-called Orphan Chambers that had been an important social institution in medieval cities in the Low Countries for managing the property of parentless

(ed.), *Women's Work: the English Experience 1650-1914*. (Arnold: London. 1998): 149 -171.

³ Anne McCants, "Exotic Goods,, Popular Consumption, and the Standard of Living: Thinking about Globalization in the Early Modern World." *Journal of World History*, Vol. 18, no. 4 (2007):433- 62.

⁴ All of the inventories consulted for this paper can be found at, G.A.A. p.a. 367, oud archief #652-688. These records are the source for all of the tables as well.

children, the Dutch orphanages that were established as a response to the rapid urban growth of the early modern period⁵ likewise managed the property of their charges. They did this with the dual intention of both preserving some patrimony (if at all possible) for the benefit of children graduating out of the orphanage into adulthood, as well as assessing the ability of the parental estates to contribute to the maintenance costs incurred by the orphaned children while living in the institution. Hence, the Regents of Dutch orphanages were of necessity deeply implicated in the property assessment and management businesses. They were expert at collecting comprehensive inventories of households upon the death of a parent, and remarkably persistent in tracking down the assets that were justifiably accreditable to their charges, whether they were directly from parents or from other more distantly related relatives.⁶ Thus, even the deceased parents of very poor children were evaluated by the Regents and their bookkeeper, so long as they had been citizens of the city for a sufficient number of years that their children were eligible for residence in the BWH. As a result the inventories associated with the BWH represent an unusually broad spectrum of the citizen working poor, as well as petty shopkeepers and craftsmen of the city. Moreover, their economic reach is not the only way in which this source is unique. These inventories also represent a most unusual opportunity to evaluate households headed by women and those of unmarried individuals of both sexes. Probate inventories are usually limited in their research usefulness by the common feature of having been drafted more

⁵ The Amsterdam BWH was founded in 1526, for example.

⁶ Each inventory includes the date of death and street location of the decedent's household, his or her surviving heirs (either a second or higher order spouse, children or both), the names and ages of the children being left to the BWH, a listing and evaluation of all movable property and some real property as well, the credits and debts left outstanding either from or to the decedent, and a list of unredeemed pawnshop tickets if there were any. In almost all cases the inventories could be linked to the city marriage registers allowing for the calculation of the age at death for the decedent, an occupation if given in the marriage registers, as well as the marital history of the decedent, and the funding or not of child support payments in the name of previously deceased spouses. A complete description of the data set can be found in, Anne McCants, "After-Death Inventories as a Source for the Study of Material Culture, Economic Well-Being, and Household Formation Among the Poor of 18th c. Amsterdam," *Historical Methods*, Vol. 39, No. 1, Winter (2006): 10-23.

or less exclusively for those with property worth fighting about, and also primarily for married male heads of household. But in the case of the BWH the situation is very different. Because an inventory was drawn up at whatever point the second parent came to die, the decedent population includes (re)married men and women, as well as widows and widowers. Moreover, because one could fall under the scrutiny of the BWH both as a relative of a current orphan to whom you left property, or as a now grown-up former orphan (without heirs of your own), the sample also includes 87 inventories of a mix of men and women who had never married. Some of these individuals were living in rented rooms, some as servants in the households of non-relations, and some, as we might expect, with members of their extended families. But in all cases, their estates have been evaluated independently of the households in which they resided.

The archives of the orphanage suggest that such inventory making had enjoyed a long history among the activities of the institution's resident bookkeeper. However, the earliest extant inventory records date only from the latter seventeenth century, and these appear not to have been generated systematically. That is, there are many fewer surviving inventories than there were children entering into the institution, even when the inventories have been collected in a single volume suggesting that loss of individual records is not the problem. Rather it seems most likely that in this earlier period the bookkeeper restricted his inventory making to only the most prosperous households, much as the Orphan Chambers had only managed the property of those children with assets substantial enough to be worth managing. However, in May of 1740 this practice seems to have changed radically. A new format of inventory book can be found in which a comprehensive record was made of every household leaving behind either orphans eligible for the BWH, assets for those orphans, or assets of former orphans now deceased who

did not themselves leave behind direct heirs with claims on those assets.⁷ These inventories survive in a continuous line from their inception in 1740 until the end of the first decade of the 19th century, at which point the institution lost its financial independence and its corporate urban status at the time of the political and fiscal collapse of the Republic under Napoleon. The total collection includes approximately 1,500 household inventories. However, the results presented here are based on only the 913 inventories recorded from the point of inception in 1740 through April 1782.⁸

Admittance into the BWH was open to all fully orphaned children whose parents (both of them individually) had held citizenship in the city of Amsterdam for at least seven years. There is, however, reason to believe that, as with many early modern social welfare institutions, the more substantial members of society did not avail themselves of such publicly provided services for their children. They seem instead to have found adequate ways to care for their orphans within their own kin networks, thereby keeping assets well within familial rather than public control. Likewise, the immigrant underclass is also missing from the BWH population. They were excluded by the combined rules of citizenship and longevity. So it was that the BWH functioned primarily as an institution catering to those of the middling sort, a fact that is readily attested by the inventories themselves.

⁷ The BWH did not have the right to make claims on the property of former orphans if they had their own children who required those resources. The guiding principle seems to have been the logical one of preserving the capacity to care for surviving children with family resources whenever possible.

⁸ After this date the proportion of the total inventories drawn up *per memorie* increases dramatically. These inventories include only the statement about the deceased and the composition of claimants on the estate, but no listing of either the specific assets or the debts. It seems that when the bookkeeper encountered a household in which the debts clearly exceeded any and all assets he increasingly saved himself the trouble of making lists and indicated only that the household had been noted just for the memory of it. While this is interesting information about the increasingly weak financial profile of the households associated with the BWH, it is not at all useful for my purposes here which are to look at the specific goods owned by these households. Some of these greatly truncated 'inventories' exist for the middle decades of the 18th century as well, but they form a much smaller percentage of the total.

Indeed, despite the BWH Regent's own conception of their charitable mission to the *burgerij*, that is to the respectable middle class of their city, the actual population that found its way through the doors of the institution was by any absolute measure a poor one. During a period in which the BWH estimated that it spent about 150 guilders per annum to care for each resident child, the median household associated with the institution had total assets at death amounting to only 69 guilders. (This drops to only 52 guilders if we include the 133 inventories recording no possessions and value them at zero guilders, which cannot be too far from a correct assessment of the reality.) Moreover, once the outstanding debts of the deceased are accounted for, the vast majority of households actually had a negative net worth. It was a scant 28% of the decedents who managed to leave property of enough value to more than cover their unpaid debts.

Table One:
Distribution of the Amsterdam BWH Inventories by Marital Status and Financial Status
(net worth and assets in guilders)

	Married	Widowers	Widows	Single
All -- N	279	202	345	87
median Assets	88	74.1	55	66
Positive net worth -- N	65	51	88	49
Column %	23.30%	25.20%	25.40%	56.30%
median Net worth	67.2	120	113.4	51
median Assets	237	326.2	224.6	103.4
Negative net worth -- N	197	113	181	36
Column %	70.60%	55.90%	52.60%	41.40%
median Net worth	-76.8	-72.7	-34	-25
median Assets	66.7	53.3	33.3	34.6
No valuation -- N	17	38	76	2
Column %	6.10%	18.80%	22.00%	2.30%
median Net worth	0	0	0	0
median Assets	0	0	0	0

Note: All valuations are denoted in guilders. Those inventories with no valuation are the so-called *per memorie* records. Typically the family information, location of the residence, the date of the bookkeeper's visit and the signatures of the relevant surviving family members were still recorded in the usual fashion. What is missing is the list of household belongings (as presumably there were none) and the household debts (although presumably there were more than enough of these).

Yet some types of households were consistently poorer even than others. The distribution of inventories by marital status and net worth accounting, along with the median asset value and the median net worth for each combination of categories, can be found in Table 1. Most obviously, single individuals were by far the most likely (that is approximately twice as likely) to die with assets in excess of their debts. But this is not because the assets of the singles were so particularly high. They were actually only about half as high as those of their various married or once-married peers. Rather it was the modesty of their debts which kept them from falling into the red as was so prevalent among their married or widowed peers. Less surprising is the relative financial weakness of the households headed by widows. They were the most likely group to fall into the *per memorie* category, and the median value of their total assets was the lowest of all those who had ever married. The accounts of currently (re)married heads of household (of both sexes, as households could enter the bookkeeping of the BWH at the death of either the husband or a wife of the original marriage, whichever came second) are most affected by their high average debts. Nearly 71% of these households had debts in excess of their assets, despite the fact that they actually enjoyed greater median asset values than the other groups as well. These debt burdens reflect in part the expense of maintaining a full household, often with young children in it as remarried men and women were likely to have younger children from their second marriages living alongside the partially orphaned children of their first marriages in what could easily become blended households of some complexity.

But high debt burdens are also a sign of greater economic activity in a society where bills were typically only settled at long intervals. Thus, the debts of the married decedents might be read as a positive sign of their engagement with the world of commerce. Indeed, high debt levels were also a sign of their greater access to credit in a world where material possessions served in the first place as collateral in the imperfect petty capital markets in which people of relatively low economic standing had to operate. In either case the real relative strength of households headed by two adults should not be terribly surprising given that for almost all of the families who came in contact with the BWH the main source of total household assets resided in the movable goods themselves. Intact households tended to be larger with more possessions than broken households, regardless of the age of the household head.⁹ Yet it is worth recalling that both widows and widowers had at one point been themselves in complete households, so there must have been some process by which they dis-acquired material possessions following the death of their spouses. Again, a process of shedding (or losing) household goods is not in the least remarkable given the overall economic location of the sample. Work I have done elsewhere shows that the families and individuals who are found in the records of the BWH did not stray much outside of the bounds of the second and fourth deciles of the larger distribution of Amsterdam households as measured by a combination of assets at death, the city income tax records, their citizenship status and the rent they paid for their housing (known in the majority of the inventories by the remaining debt for house rent specified by the number of months still due).¹⁰ After all, nearly 30% of the inventories do not even record the presence of so much as a bed, or a piece of storage furniture, indeed not even something as simple as a basket. And nearly

⁹ Indeed, these results are not simply an artifact of age at death. The median age at death of the inventoried subjects does not vary systematically across the wealth categories, nor do the median asset figures for the various demographic groups change perceptibly when controlling for age at death.

¹⁰ Anne McCants, "Inequality Among the Poor of Eighteenth Century Amsterdam," *Explorations in Economic History*, Vol. 44, #1 (January 2007): 1-21.

15% of the inventories record no possessions of any kind; this despite the fact that the pathetic descriptions of some of the enumerated inventories suggest that the quality threshold for non-reporting on the part of the bookkeeper was very low indeed.

What might we expect then in the way of consumer goods from a population that could barely support its children in life, let alone after death? How could such a group be expected to have participated in any meaningful way in the new consumer culture of the 18th century? What place would dress accessories and pottery, small metal wares and adornments, stimulants and sweeteners, have occupied in their seemingly meager lives? Could the homes (cellars and single rooms as they often were) of such people possibly provide us with the evidence we need if we are to document the economic depth and importance of the new consumer behavior? After all, such documentation depends on finding consumption of the new ‘luxury’ items widely spread across the social spectrum, as consumer goods which were exclusively limited to elite lifestyles might legitimately be dismissed as trivial when they are not overlooked altogether. For de Vries’ industrious revolution theory to have traction we need to find evidence that the new consumer goods enjoyed a broad geographic reach as well as a wide price and quality spectrum. Only these features could produce the necessary conditions for the kinds of social differentiation that in turn might stimulate the willingness to work longer and less autonomous hours, especially on the part of women and their children.

Work I have published elsewhere using the orphanage inventory data, in conjunction with a wide variety of other sources, argues that these conditions were met already in the 18th century for tea, coffee, sugar, and tobacco, and the new vessels in which they were prepared and served.¹¹ In this essay I would like to turn my attention specifically to textiles which I believe

¹¹ Anne McCants, “Exotic Goods”; and “Poor Consumers as Global Consumers: the Diffusion of Tea and Coffee Drinking in the 18th century,” *Economic History Review*, Vol. 61, No. S1 (2008): 172-200.

are an especially suitable commodity for testing some of the broader implications of a theory of consumer behavior that can be fully linked to the world of production and prices. For textiles are ubiquitous: in the archeological record; in trade statistics and company records; in household production in cities, the countryside, and even frontier regions; in the history of art and display; in expressions of sexuality and in the negotiations surrounding family formation; in the annals of conquest, enslavement and tribute; in the history of technological progress and the development of modern science, most notably chemistry; and indeed, they are absolutely central to the phenomenon of the Industrial Revolution itself. It is quite plausible that textiles have been the most frequently traded commodity in the history of human civilization, despite how easy it has become for those of us living in a 'post-industrial' age to overlook their economic importance entirely. Textiles can, and indeed have been, produced everywhere; and yet they have been traded extensively, and almost always between communities that are both perfectly capable of making their own. So although clothing that serves as protection from the elements might reasonably be classified along with other survival goods as necessities, the same cannot be said for clothing made of cloth imported over a long distance. As the exhaustive archeological work of Elizabeth Wayland Barber makes abundantly clear, the trading of textiles has been largely superfluous to the basic needs met by clothing for most of discernable human history.¹² On the contrary, the textile trade is necessarily fueled by either or both of two different factors: the price differentials that might arise from production efficiency gains in one location versus another; or people's (intrinsic?) love of variety and desire for novelty or display. That people have bought and sold textiles over often prodigious distances, and sometimes at great expense as well, is

¹² For a particularly accessible and thoroughly eye-opening introduction to the highly technical field of textile archeology see Barber, *Women's Work: the First 20,000 Years* (Norton: New York, 1994).

strong evidence that they serve other functions than just the provision of warmth and protection from the elements.

So an examination of textile consumption patterns seems an ideal subject to bring together and focus many of the varied stands of economic theory and the history of consumption that have been so central to de Vries' research agenda, including but perhaps not limited to: macro-economic phenomena relating to the growth of economies and changes in the standard of living; the micro-economics of the supply of and demand for textiles in the marketplace; the production and use of textiles within the household economy; the gendered division of labor in textile manufacture, both commercially and for auto-consumption, and perhaps a related gendered division of consumer practices; and the luxury debates that raged so loudly in the 17th and 18th centuries. What then do the inventories associated with the BWH reveal about textile consumption within the milieu of the citizen working poor in the middle decades of 18th century Amsterdam, at the European epicenter as it were of global commodity exchange?

Table 2 presents a (non-clothing) sampler of the kinds of household goods that are found with some consistency in the BWH inventories. The total volume of goods in most of the sample households is not necessarily large, but the variety reflects a domestic interior that is distinctly richer than what we might expect to find in the sparsely equipped homes of a similar social rank in the medieval period. There is furniture for sleeping, eating, sitting, storage and work. The variety of kitchenwares and tablewares is not overwhelming, but nonetheless indicative of a move towards increasingly specialized vessels; water-pots, infusion-pots, cooking pots, oil-cans, milk-cans and beer-cans, not to mention tea-spoons, -cups and -saucers, are among the many items which incorporate a modifier into their name. Wardrobes include not just the basic items of shirts, pants, frocks, tunics and overcoats, but a myriad of accessories such as vests,

camisoles, sleeves, caps, muffs, ruffles, aprons, pockets, stockings, bed jackets, robes, bonnets, ties, and special clothing for mourning the dead and for outfitting children. Perhaps most surprisingly for such modest households, there is no shortage of items purely devoted to decoration such as prints, mirrors, paintings in frames, porcelain and other pottery trinkets, and window curtains.

Table Two: Amsterdam BWH Inventoried Goods, 1740-1782

	N	%of all inventories	Mean	Median	Maximum
# of inventory entries	805	88.2	61.2	52	293
total # recorded goods	805	88.2	218.5	134	8,129
Beds (all kinds)	652	71.5	1.8	1	14
Cupboards/wardrobes	575	60.3	1.7	1	10
Chests	273	29.9	1.4	1	5
Chests of drawers	97	10.6	1.1	1	2
Cabinets	68	7.5	1	1	2
Hanging cupboards	144	15.8	1.1	1	3
Baskets/hampers	191	20.9	3.2	1	206
Walnut furniture (all)	79	8.6	1.3	1	12
Chairs	622	68.2	7.6	6	94
Tables	577	63.3	2.2	2	15
Tea tables	66	7.2	1.2	1	2
Blankets	621	68.1	3.2	3	14
Curtains					
(bed/unspec.)	575	63	4.6	3	30
Curtains (window)	41	4.5	4.5	4	25
Floor mats/carpets	65	7.1	2.3	2	8
Spoons	452	49.6	6.8	6	40
Forks	48	5.3	4.6	4	15
Beer cans/glasses	241	26.4	1.3	1	11
Delftware	492	53.9	4.1	2	73
Pewter wares	475	52.1	15.1	12	82
Pewter plates	132	14.5	6.8	6	26
China (porcelain)	341	37.4	29	11	412
Japanese porcelain	15	1.6	11.3	5	68

Coffee wares	482	52.8	7.4	2	199
Tea wares	360	39.5	4.5	2	94
Teapots/infusers	422	46.3	3	2	23
Coffee and tea (comb.)a	533	58.4	9.8	3	206
Sugar bowls, etc.	74	8.1	2.6	2	10
Chocolate wares	25	2.7	5.7	5	33
Pepper wares	189	20.8	1.1	1	7
Salt boxes/cellars	215	23.6	1.9	2	11
Mustard pots, etc.	68	7.5	1.1	1	3
Tobacco wares	317	34.8	2	1	17
Bibles	181	19.8	1.4	1	6
Other books	197	21.6	4.1	2	60
Paintings	224	24.6	3.8	2	61
Prints	261	28.6	4.1	3	29
Mirrors	529	58	1.5	1	10
Tea traysb	344	37.7	3	3	18
Scientific instruments	30	3.3	1.2	1	3
Timepieces	171	18.8	1.1	1	3
Gold (all items)	133	14.6	2.8	2	9
Silver (all items)	258	28.3	8.7	3	118

Normally we would not want to rely only on inventory listings to assess a flow phenomenon such as consumption. For inventories can tell us nothing about the timing of purchases, the rate of depreciation, or the scope for recycling and handing down in any given population. Indeed, it may be the case that the most frequently purchased items are the least likely to survive in inventory records on account of their ephemerality; hence, the suspicious lacunae of foodstuffs from almost all inventories. However, in the absence of account books, especially for earlier periods and for lower social groups, we have to triangulate with the sources we have available to us. At the macro level this includes some market price data, and trade share data by broad category for the larger trading companies. At the micro level as revealed by the inventories themselves we have a limited number of well identified and individually valued items which allows for quality and price comparisons across similar types of goods. This allows

us to assess the distribution of goods by type and quality across households of differing economic and demographic characteristics. We can also look for goods that were owned in combination with other goods to reconstruct patterns of consumption; syndromes, as it were, of the desire to make social statements of a kind that would have been meaningful to contemporaries, even if no longer always to us.

Table Three: Mean shares of inventory categories by demographic and wealth profiles.

Top: Types of goods as a share of all movable assets by marital status of decedent

Bottom: Types of goods as a share of all movable assets by wealth status of decedent

	N	Clothing % share	Bedding % share	House goods % share	Jewelry % share	Shop goods % share
All	767	33.4	21.5	38.5	6.1	0.4
Married	263	31.4	21.1	42.8	4.1	0.3
Widower	160	29.8	22.1	42	5.4	0.4
Widow	264	28.3	26.4	39.5	5.4	0.5
Never married	80	63.8	5.4	14.2	16.5	0.2

	N	Clothing % share	Bedding % share	House goods % share	Jewelry % share	Shop goods % share
All Assets	767	33.4	21.5	38.5	6.1	0.4
<15g	113	17.4	27.9	53.5	1.1	1.1
15 - 200 Assets	443	36.4	23.1	35.4	4.8	0.4
>200	211	35.6	14.6	37.2	11.6	0.1

Table 3 reports the share distribution of the various categories of movable assets as found in the 767 BWH inventories that were fully evaluated by the bookkeeper and have no missing information. They have been sorted in two ways for this analysis, once by the marital status of the decedent and again by three very broad wealth categories based on the total assets associated with each inventory. Two things are worthy of note about this table in regards to the subject at

hand here. First, the never married population held an extraordinary proportion of their total movable goods in stocks of clothing and accessories, on average accounting for nearly 64% of the value of their possessions. All other demographic groups were at about half that level with clothing accounting for approximately 30% of the value of their total household goods.

Likewise the singles' share of jewelry, while much lower absolute guilder values, was nonetheless more than twice as high as a percentage share, as for the married and widowed households. Second, clothing constituted a relatively low share (17%) of the very poorest households, those with total assets of less than 15 guilders. But for the next richer group the share doubles, and stays steady into the very highest reaches for this population. That is to say that greater wealth seems to have been dedicated in a proportional way to clothing outlays once a particular threshold was crossed. Yet even small initial increases in the financial status of very poor households led first and foremost to a more than proportional increase in the commitment to clothing.

What kinds of textiles then were to be found in the inventory records of the BWH? How likely were the clothing allocations of these households of mostly modest means to contain fabrics which distinguished their owners as active participants in the consumer revolution taking place around them? Admittedly, many of the individually enumerated pieces of clothing have been recorded with no specific detail, or are denoted only as 'old' or 'worn'. But a surprising amount of more useful detail is forthcoming than just this. A great many items of clothing are described according to broad characteristics, such as having been designed for a man, or for a woman or a child. Common descriptors also include the color (or less often the print) of the fabric. And in more than 3,000 individual cases we can be certain of the type of weave, fiber, or both, of the textile in question. Indeed, there is more variation in named types of fabric than in

any other set of characteristics found in the inventories. For example, only seven distinct types of wood are listed by name to describe various pieces of furniture or wooden boxes and tools. But at least 55 different types of fabric are specified by name.¹³ In some cases these are very specific names relating to the design or location of origin of the fabric such as *seras*, a very fine silk fabric produced along the Coromandel Coast of India. For other entries there are more general descriptors such as just silk or cotton without further modification. If we were to multiply all the variations in fabric types by the various colors and prints also found as descriptors, the possibilities for individual expression in one's clothing choices expand rapidly.

But how can we be sure that this spectrum of designated fabric/design combinations was not just concentrated among the inventories of the richest of the households which came into contact with the BWH? For our argument it is not enough to simply identify them as present among the total. We need to document that they were distributed, even if not equally, across the wealth spectrum. The top panel of Table 4 represents an effort to make just such a demonstration. The procedure on which I rely here is not entirely intuitive, so it is worth some explanation. To begin with I want to capture a household's capacity to participate in a cultural practice, even if they could only do so in the most marginal of ways. For it is the *effort* to participate which is the salient fact for de Vries' 'industrious revolution', and not necessarily the volume of goods that are actually acquired. So it is not especially illuminating to simply count the number of pieces of clothing made from the various textiles we think likely to be indicators of the new consumer practices. Such an exercise would favor larger households, particularly those with two adults at the head, and certainly richer ones as well. Instead, I created groupings of households on the basis of whether or not they owned even a single piece of a particular kind

¹³ I say "at least" because despite many years of sleuthing there continue to be clothing descriptor terms that I cannot identify in any other sources. In most cases these seem likely to be particular types of fabric now long forgotten.

of fabric, for 22 different fabrics of both domestic and foreign manufacture selected on the basis of their frequency in the inventories as well as for their novelty value. I then evaluated the various different fabric-inclusion groups in comparison with each other for both the demographic distribution and the average financial characteristics of the households situated in each. The financial data are detailed in the first panel of Table 4 and the demographic distribution in the second panel of Table 4.

Table Four: Household Characteristics by Fabric Possession

Households grouped by possession of specified fabric		Household Assets in Guilders				
		N	minimum	Q1	median	Q3
<i>lakens</i>	Dutch woolen	487	4	53.3	116	323.5
cottons	Asiatic	213	8.5	62	142	332.6
woolens	European	192	9.5	59.3	144.8	334.1
<i>baai</i>	woolen flannel	53	11	72.2	146	451.4
gingham	cotton print	8	28	73.1	152.9	382
<i>bont</i>	cotton print	131	13	66.7	165.9	352.2
<i>cambaai</i>	cotton print	51	14	97.5	168.5	352.2
<i>muslin</i>	Asiatic	165	7	79	172.1	334
<i>bombazijn</i>	heavy cotton camelhair	10	31.5	50.6	176.9	849.1
<i>camelotten</i>	mix	5	49.3	165.9	181	211
<i>grij</i>	Dutch woolen	71	13	71.5	181	451.9
serge	Dutch woolen	71	14	67.3	182.2	337
<i>coleurde</i>	Dutch woolen	119	11.5	69.5	187.5	403.7
damask	European	119	10.8	87.5	190	383.6
linnen	European	93	10.8	72.2	208.5	515.8
<i>stofjes</i>	Dutch worsted	51	48	142	217.9	470.7
<i>trijp</i>	Dutch velvet	9	71.5	110	245.2	841.5
silk	Asiatic	205	23.4	110.5	246.5	481.9
velvet	European	62	17.5	95	247.4	548.3
<i>gestitke</i>	embroidered	54	26	103.6	255.3	362.1
<i>caleminke</i>	Dutch woolen	32	29.5	91	259.1	795
chintz	Asiatic	132	12	131.1	272.4	601.3
<i>armosijn</i>	Bengal silk	2	273.5	273.5	557.6	841.5
<i>seras</i>	Coromandel silk	6	151.6	334	572.1	841.5

Households grouped by possession of specified fabric		Percentage shares				
		All	married	widowers	widows	Never married
<i>lakens</i>	Dutch woolen	53.6	66.2	55	49.4	26.4
cottons	Asiatic	23.3	28.1	18.8	21.7	25.3
woolens	European woolen	21.1	23	18.3	20.8	23
<i>baai</i>	flannel	5.8	6.1	6.4	3.5	12.6
gingham	cotton print	0.9	1.8	0.5	0.6	0
<i>bont</i>	cotton print	13.9	14.4	11.4	11.8	26.4
<i>cambaai</i>	cotton print	5.6	8.6	6	3.8	2.3
<i>muslin</i>	Asiatic	17.5	21.9	7.4	16.2	32.2
<i>bombazijn</i>	heavy cotton	1.1	1.4	1.5	0.6	1.1
<i>camelotten</i>	camelhair mix	0.01	0.01	0	0.01	0
<i>grij</i>	Dutch woolen	7.8	8.3	7.4	7.2	9.2
serge	Dutch woolen	7.6	10.4	8.9	4.9	5.7
<i>coleurde</i>	Dutch woolen	13	19.1	14.8	8.4	8
damask	European	13	15.8	8.1	11.3	20.7
linnen	European Dutch	10.2	11.1	9.4	9.5	11.5
<i>stofjes</i>	worsted	5.6	6.1	5	5.2	6.9
<i>trijp</i>	Dutch velvet	1	1.1	3	0	0
silk	Asiatic	22.5	23	19.3	21.4	33.3
velvet	European	6.9	6.8	7.4	5.2	12.6
<i>gestitke</i>	embroidered	6	6.8	5	5.2	9.2
<i>caleminke</i>	Dutch woolen	3.5	4.7	1	3.5	5.7
chintz	Asiatic	14.5	17.6	10.9	14.2	14.9
<i>armosijn</i>	Bengal silk	0.2	0.4	0	0.3	0
<i>seras</i>	Coromandel silk	0.7	1.8	0	0.3	0

The tables are arranged hierarchically with the fabric-possession groupings listed in ascending order of the value of the median assets in guilders for each set of households. To give a fuller picture of the financial profile of the households located in each fabric-inclusion group the table also reports the first quartile, the third quartile and the minimum values of total household assets. Obviously the rank order of the fabric-inclusion groups would change slightly, but only slightly, if we were to sort on one of the other statistical measures than the median.

This variability reflects both the general statistical noise associated with this sort of calculation, and the very small sample sizes for some of the fabric groups; but given the bluntness of the measurement instrument, its consistency is actually quite remarkable.

To help put these median asset values into context a similar exercise performed on other types of household goods finds that delftware (median asset value=99 guilders), mirrors (median asset value=104 guilders), and coffee and tea-wares (median asset value=114 guilders) all ranked lower in this hierarchy than even the most traditional of Dutch fabrics, the *lakens*. Even porcelain (median asset value=147 guilders) ranks just alongside a locally manufactured woolen flannel known as a *baai*. By contrast, the seemingly rather more prosaic fork, which was in fact quite rare among this population, ranks higher (with a median asset value=272 guilders) even than silks and just on a par with chintz.¹⁴

Indeed, one of the most striking things about this hierarchy is how thoroughly mixed together are textiles of both local and exotic manufacture. The richest households (relatively speaking given the overall poverty of the sample) clearly had access to some expensive Asiatic imports of fine silk, but they also continued to buy fabrics of Dutch (or at least European) manufacture for which there were long associations of high quality, most notably velvets and a particularly fine woolen known as *caleminke*. Likewise, households at the other end of the spectrum could also participate in the commerce with India. There were a wide variety of light cotton textiles, gingham, *bonts*, and *cambaai* for example, which seem to have been inexpensive enough that they could find their way into asset-poor households, even those from the lowest wealth category as measured here. Households of unmarried individuals were especially likely to participate where possible in the consumption of new and/or fashionable fabrics. This was the demographic group most likely to include silks and some of the cotton prints among their

¹⁴ For a more complete list of goods other than fabrics see McCants, "Exotic Goods," Table 3, p. 452.

possessions, while deferring to their married peers when it came to wearing the solid, but perhaps by then old-fashioned *lakens*.

As interesting and suggestive as this kind of household ranking is, it still does not provide any concrete information about the relative prices of clothing made from these different fabrics. Unfortunately there are not very many items of clothing in the inventories that were both individually valued by the bookkeeper and described with full fabric detail. So it is only for a few types of items that appear with great frequency that we have enough data to evaluate the value differentials between fabric types for the same item of clothing. For example, of the 182 jackets that were valued individually by the bookkeeper fully half of them (96) were not identified as to type of fabric. The average unit value of the unspecified jackets is 1.1 guilders, compared to a mean unit value of 2.7 guilders for the 12 silk jackets, and 3.1 guilders for the 44 jackets made of chintz. Meanwhile the mean unit value of the identified cotton jackets is only one guilder. This fabric hierarchy is completely consistent with the ordering of median household assets as sorted by fabric-inclusion groups. A similar pattern emerges for the individually valued *japons*, a sort of dressing robe already identified by name with its eastern origins and exotic appeal. The inventories record 69 *japons* with individual valuations, 18 of which do not have a specified fabric. These 18 have a mean unit value of 3.9 guilders apiece. Meanwhile the 33 silk *japons* average 8.6 guilders apiece, while the 5 chintz *japons* average 9.3 guilders apiece. Just as we would expect the various other fabric types that make an appearance have values that likewise remain consistent with the hierarchy already developed in Table 4. While this remains far from conclusive proof that the procedure of ranking the fabric-inclusion household groups by their median asset values speaks reliably to the relative prices of those fabrics and the capacity of households to purchase them in the marketplace, it is nonetheless

reassuring that the pattern of ordering is so consistent across the different measures available to us.

What this evidence reminds us of then is the fact that both regions, Europe and Asia broadly construed, manufactured a full range of cloths, from the very cheap to the prohibitively expensive. This range inevitably left poor Europeans excluded from some kinds of consumption but not exclusively along lines of geographic origin. While the traditional Dutch woolen is the fabric most in abundance in these inventories, it did not require much of a jump in wealth status for a household to be positioned for the ownership of at least a cheaper variety of cotton. Likewise, the top of the scale was occupied by a real mix of traditional European luxury fabrics such as velvet and damask, and some newer imports, most importantly chintz. By the early modern period silk cannot be classified as either a traditional local textile or a new exotic. After all, silk had been imported into Europe since the Roman period. By the High Middle Ages there was a nascent silk industry in Europe itself based on stolen technologies. Nevertheless, and somewhat ironically, it was only with the large-scale importation of cheaper silks from China by the various European merchant companies in the 17th and 18th centuries that silk consumption could become so relatively widespread, reminding us once again of the important links between the productive process and the contours of consumption.

One final observation might usefully be made about the patterns of consumption revealed by the BWH inventories. That is, that the experimentation of these relatively poor households with new kinds of textiles was not likely to have been a haphazard or accidental process. Rather the possession of individual fabric types seems to have formed an important part of a larger strategy of consumer presentation. Table 5 reports the likelihood of presence (and mean and maximum quantity of individual items) of specific fabric types in households that have already

been identified by the possession of one of the fabrics listed in the median asset ranking. While this data is again hard to pin down statistically, it nonetheless suggests that households located at the top of the hierarchy (that is those that owned goods made from one of the more expensive fabrics) were more likely than on average to possess fabrics lower in the hierarchy as well. Not surprisingly, this tendency does not work in reverse. So for example, 70% of the households which owned at least one piece made of chintz also owned one of silk, whereas for the almost double in size household group of cotton owners only 42% also owned something made of silk. It seems likely that households did not just make a single foray into the market for the acquisition of just one fashionable item, but instead understood multiple (and coherent) such forays to be desirable.

Table Five: Distribution of Fabric Types among Households Owning Specified Fabrics with Mean and Maximum Number of Individual Items

	cottons	<i>cambai</i>	damask	linnen	<i>stoffjes</i>	silk	velvet	<i>caleminke</i>	chintz	
	213	51	119	93	51	206	63	32	132	
Also own:										
	Col. % 69% (148)	N	Col. % 70% (83)	N	Col. % 75% (70)	N	Col. % 82% (42)	N	Col. % 80% (165)	N
<i>lakens</i>		90%(46)								
mean		5.9		7.4		7.2		9.5		7.8
max		22		35		46		46		28
cottons			66% (79)							
mean		4		5.2		4.8		4.7		5.4
max		44		44		14		25		44
woolens	69% (147)		68% (81)							
mean		2		31%(16)		2.1		2.1		1.9
max		7		5		7		4		7

<i>baai</i>	15% (31)	12% (6)	18% (22)	14%(13)	6% (3)	12% (25)	19%(12)	34% (11)	11% (15)
mean	1.5	1.8	1.4	2.3	1.3	1.9	2	1.6	1.6
max	6	3	3	6	2	5	4	3	2
<i>bont</i>	38% (81)	25%(13)	39% (47)	39%(36)	18% (9)	30% (62)	48%(30)	34% (11)	39% (52)
mean	4.4	4.4	4.6	4	8	5.5	4.5	6.1	5.4
max	42	13	42	20	42	42	16	30	42
<i>cambaai</i>	10% (21)	100%(51)	13% (15)	10% (9)	4% (2)	12% (24)	13% (8)	9% (3)	8% (11)
mean	1.2	1.2	1.1	1.1	2	1.3	1.1	1.3	1
max	2	3	2	2	2	3	2	2	1
<i>grij</i>	27% (57)	12% (6)	25% (30)	22%(20)	14% (7)	18% (38)	29%(18)	25% (8)	23% (31)
mean	1.3	2.3	1.4	1.5	1	1.4	1.5	1.8	1.4
max	3	3	3	3	1	3	3	3	3
<i>serge</i>	18% (38)	6 % (3)	24% (28)	19%(18)	2% (10)	17% (34)	19%(12)	9% (3)	20% (26)
mean	1.7	1	1.6	1.7	2	1.9	1.7	2	1.9
max	4	1	6	4	6	6	4	2	6
<i>damask</i>	37% (79)	29% (15)	100(119)	35%(33)	31(16)	36% (75)	54%(34)	50% (16)	47% (62)
mean	1.8	1.8	1.7	2.4	2.6	1.8	1.6	2.3	1.9
max	15	5	15	15	15	15	5	15	15
<i>linnen</i>	24% (52)	18% (9)	28% (33)	100%(93)	16% (8)	21% (43)	27%(17)	28% (9)	25% (33)
mean	5.6	4.9	5.7	5.9	10.1	7.2	4.4	5.1	6.5
max	27	15	25	30	27	30	14	18	30
<i>stoffjes</i>	10% (22)	4% (2)	13%(16)	9% (8)	100%(510)	14% (29)	3% (2)	16% (5)	20% (25)
mean	1.9	2.5	1.5	1.3	1.8	1.7	1	1.4	1.8
max	7	4	3	2	7	4	1	2	7
<i>silk</i>	42% (90)	47% (24)	63%(75)	46% (43)	57% (29)	100(206)	63%(40)	53% (17)	70% (93)
mean	2.5	2.2	2.5	2.5	3.1	2.5	2.9	2.6	3
max	10	6	8	8	8	10	8	7	10
<i>velvet</i>	22% (47)	16% (8)	29%(34)	18% (17)	4% (2)	19% (40)	100%(63)	28% (9)	23% (30)
mean	1.8	1.9	1.8	1.7	2	1.9	1.7	1.8	2.1
max	6	3	6	3	3	6	6	3	6
<i>calemink</i>	11% (24)	6% (3)	13%(16)	10% (9)	10% (5)	8% (17)	14% (9)	100%(32)	14% (19)
mean	1.2	1.7	1.2	1.3	1.6	1.2	1.2	1.2	1.2
max	3	3	3	3	2	3	3	3	3
<i>chintz</i>	39% (84)	22% (11)	52%(62)	35% (33)	49% (25)	45% (93)	48% (30)	59% (19)	100%(132)
mean	2.5	2.2	2.6	2.6	2.7	2.8	2.6	3	2.5
max	9	5	9	9	9	9	7	9	9

To bring this discussion to a conclusion, I note that we should not be particularly surprised by the evidence for a wide price and quality range for both European domestically

produced textiles and their Asiatic competitors; or by the socially broad participation in the market for new consumer goods by the middle decades of the 18th century. Research carried out on the intra-Asian trade of the VOC has long shown that a wide range of textile qualities were moved over the whole Asian trade network. The extreme example of this is the *guineas*, a very light cotton used mainly for clothing slaves, but more ordinary cheap goods were produced and distributed widely as well. For example, Wil Dijk's research in the VOC archives from Burma finds evidence of textile customers there who hailed "from all walks of life, from kings to slaves."¹⁵ Indeed, her work shows that the bulk of the trade to Burma consisted of simple cloth intended for everyday use by common people. Given the much greater extent of the ordinary market than the luxury market, it should not be too hard to believe that savvy traders such as the Dutch would have found a way to tap into the former. Nor should we find it so hard to believe that the VOC likewise brought home to Europe goods destined for a similarly large market for ordinary wares. Profits may have been less per unit on the cheaper goods, but this could be made up for by volume. The preponderance of relatively inexpensive cotton textiles among the clothing of the orphanage affiliates is certainly evidence of such a strategy at work.

Moreover, the global give and take of both style and technique that has been so well documented for ceramic manufacture, leading to its appellation as 'the pilgrim art', is equally important for textile manufacture. Lest we forget, that most quintessential of English economic phenomenon, the so-called First Industrial Revolution, was overwhelmingly powered by the cotton textile industry, hardly an indigenous enterprise. However, we need not wait for the nineteenth century to see the powerful forces of global imitation at work in the manufacture of textiles. Both Maxine Berg and John Styles, among others, have shown exhaustively that as

¹⁵ Wil O. Dijk, "The VOC's Trade in Indian Textiles with Burma, 1634-80," *Journal of Southeast Asian Studies*, Vol. 33 (2002): 495-515, p. 502.

early as the late seventeenth century this industry was especially sensitive to changes in taste driven by imported goods. As Berg notes, the “focus of invention during the eighteenth century was directed towards this process of imitation.”¹⁶ Moreover, as with ceramics, the direction of influence in textile manufacture was not merely one-way. Both Chinese porcelain and Indian cottons came to be decorated with patterns that were themselves imitations of the imitative style known in Europe as *chinoiserie*.¹⁷

These globally linked, and highly distinctive, new productive processes made it especially unlikely that cloth made at home would remain a desirable alternative to market participation. Aside from any cost considerations resulting from the economies of scale enjoyed by the mass-produced varieties of cloth, homemade textiles would have been immediately recognizable as such. Perhaps then the final piece of relevant evidence contained in the BWH inventories is the nearly complete absence of spinning wheels and looms from the lists of household possessions. (They were even fewer than the already mentioned scarce forks which could claim a presence in 48 households.) Only eight inventories so much as mention a spinning wheel, and at least three of these households were clearly engaged in the commercial production of textiles. Likewise an even fewer six households owned weaving looms, and all of these were obviously in the service of commercial production. Given the relative poverty of the BWH population, and its high number of female (and especially widowed) decedents, it is truly remarkable that there is not more evidence of this classic by-employment. In contemporary North America home production of cloth was still completely ubiquitous in the 18th century,¹⁸ as

¹⁶ Maxine Berg, “New Commodities, Luxuries and their Consumers in Eighteenth Century England” in Berg and Helen Clifford (eds), *Consumers and Luxury: Consumer Culture in Europe 1650-1850* (Manchester: Manchester University Press, 1999), p. 77.

¹⁷ John Styles, “Product Innovation in Early Modern London,” *Past and Present*, Vol. 168 (2000): 124-169, p. 133.

¹⁸ See Laural Thatcher Ulrich, *The Age of Homespun: Objects and Stories in the Creation of an American Myth* (New York: Knopf, 2001).

must have been the case in many parts of Europe as well. This absence, as much as anything else revealed by the inventories about the possessions of ordinary Amsterdammers, brings us full circle in de Vries' conception of the 'industrious revolution'. Labor that would have once been tied up in the onerous and time-consuming task of textile production at home, had clearly been shifted to other employments. To replace its former output with something softer, finer, more colorful, easier to wash, and almost certainly more voluminous as well, households of even very modest means turned to the marketplace where they increasingly found cloth to purchase that had been produced half-way around the world.