The Demand for Consumer Durables in the United Kingdom in the Interwar Period

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Distinct diffusion curves are identified by model type and significant differences in regional motor car ownership in the interwar U.K. economy. We assess the viability of applying mass production strategies such as Ford and General Motors pursued in America. Given the demand-side constraints present in the U.K. market, the price reductions made possible by the exploitation of economies of scale were insufficient to create a mass market. Hence, the relatively low levels of ownership achieved can be seen as a rational response to the constraints perceived by firms.

The growth of the market for consumer durables is often seen to go through a three-stage process, each stage associated with a characteristic shape in the diffusion curve. The transition from one stage to another is characterized by a shift that changes the shape and moves the diffusion curve upward. The attraction of the diffusion model is twofold: it draws attention to factors that explain the shift from one stage to the next and to those that account for the shape of ownership at any stage in the process.[1]

Our concern in this article is with the shape or absence of any shift in the diffusion curves in the market for motor cars in England in the interwar period—and, in particular, with the reasons for the "failure" to shift demand into a third, mass market stage. Previous research tested three key assumptions of contemporary motor manufacturers that were used to justify the absence of any supply-side changes: (1) that demand was limited to the upper and middle classes, (2) that market growth was diffusing but had not reached saturation among those groups, and (3) that short-term profitability was ensured by a policy that aimed to extend the existing rather than to stimulate a new market. Our results indicated the viability of the manufacturers' assumptions and, as such, vindicated the view that Fordism was only viable when there was a predictable, large, and expanding market.[2] That earlier work is extended here by an exploration of the dynamics of the disaggregated

[1] Bain, *Television*; Brown and Deaton, "Models"; Blundell, "Consumer Behaviour"; and Deaton and Muellbauer, *Economics*, pp. 369–73.

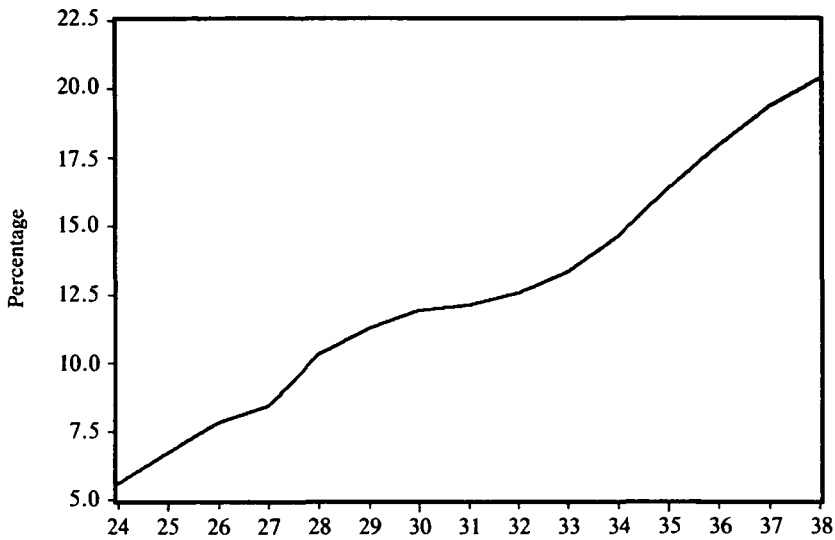[2] Bowden, "Demand"; and Bowden and Turner, "Cross Section Evidence."

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PERCENTAGE OF ENGLISH HOUSEHOLDS OWNING ANY TYPE OF CAR, 1924–1938

Source: Society of Motor Manufacturers and Traders, "Home Market Analysis, 1924–1938."

market and of the constraints in the United Kingdom of two American-style methods of prompting the growth of mass markets: namely, hire purchase (lease with the option to buy) and price reductions.

The general pattern of diffusion of car ownership can be seen in Figures 1 to 6. It is obvious from Figure 1 that 1924 to 1938 was an important period of growth: ownership rose from slightly more than 5 percent in 1924 to more than 20 percent by 1938. However, the aggregate figures disguise a variety of trends for different car models and across different regions. Figure 2 shows regional trends in ownership and indicates that, though the trend is upward in all regions, the level is significantly lower in the poorer Midlands and North.[3] These regional patterns persist when we look at different car models, but there is a strong contrast between the growth for the smaller-car groups (Figures 3 and 4) and the relative stagnation in the larger-car groups (Figures 5 and 6).

To examine the diffusion process more formally, we estimated logistic diffusion curves for each of the car types within each of the regions. The curves estimated took the following form:

$$\log [x_t / (x^* - x_t)] = \alpha_0 + \alpha_1 t \tag{1}$$

This generates an S-shaped diffusion curve that approaches some saturation level of ownership asymptotically. The saturation level of

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[3] The regional ownership series were computed as weighted averages of the individual county ownership figures. The weights were the shares in total regional population of each county according to the 1931 statistics (United Kingdom, *Census*).
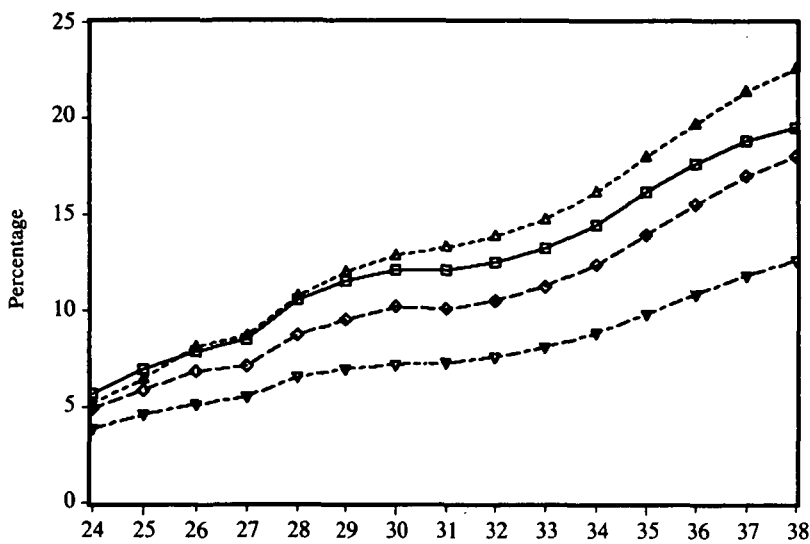
FIGURE 2

PERCENTAGE OF HOUSEHOLDS OWNING ANY TYPE OF CAR BY REGION,
1924–1938

Notes: The Southeast is shown by squares, the Southwest by pyramids, the Midlands by diamonds, and the North by inverted pyramids.
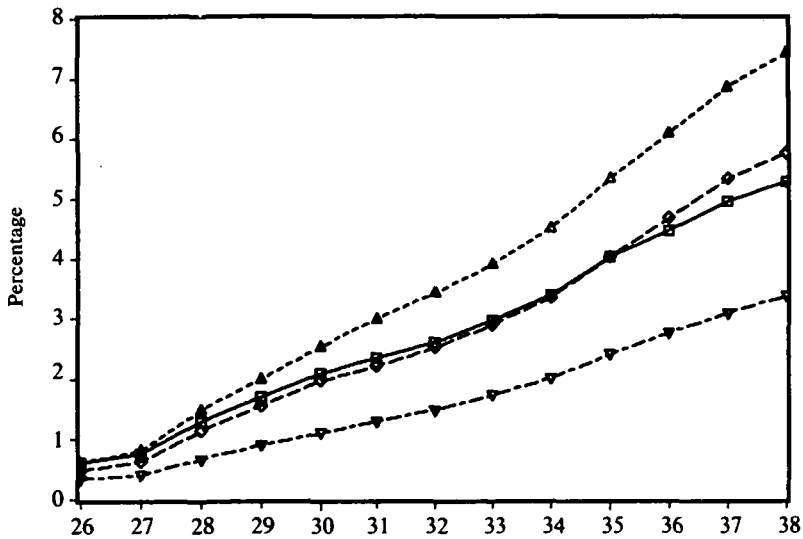*Source*: See Figure 1.

FIGURE 3

PERCENTAGE OF HOUSEHOLDS OWNING 7- OR 8-HORSEPOWER CARS BY REGION,
1926–1938

Notes and Source: See Figures 1 and 2.

FIGURE 4

PERCENTAGE OF HOUSEHOLDS OWNING 9- OR 10-HORSEPOWER CARS BY
REGION, 1926–1938

Notes and Source: See Figures 1 and 2.

ownership, x^*, is expressed here as a percentage of households; α_0 and α_1 determine the intercept and the slope of the diffusion curve, respectively.
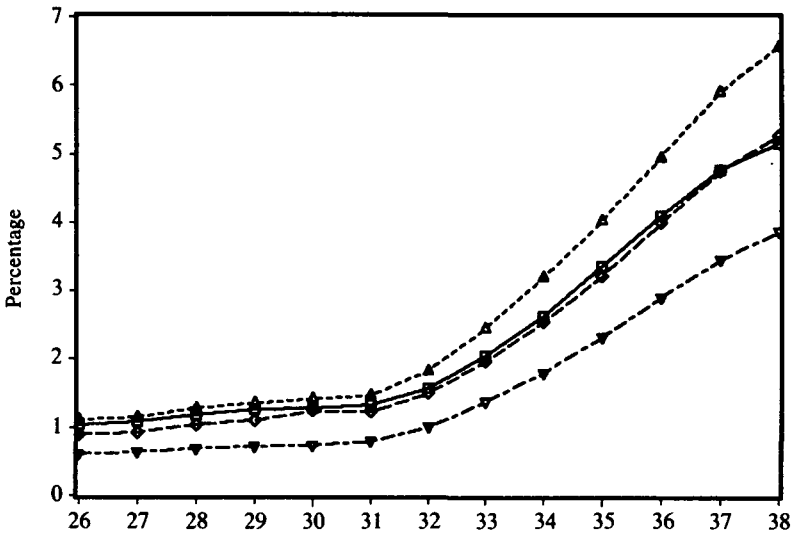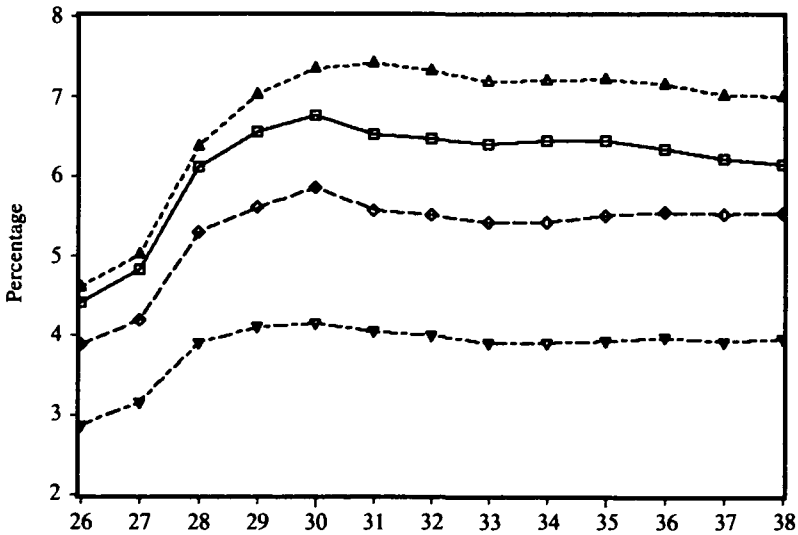

FIGURE 5

PERCENTAGE OF HOUSEHOLDS OWNING 11- TO 16-HORSEPOWER CARS BY
REGION, 1926–1938

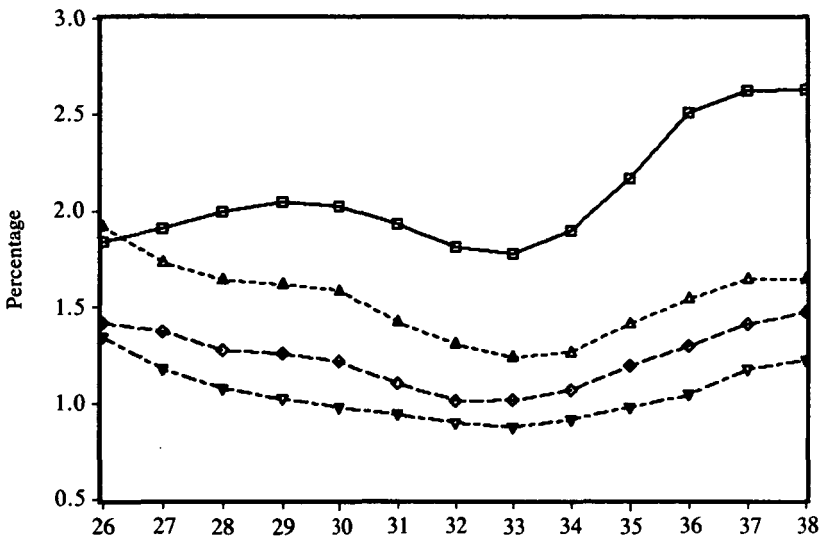*Notes and Source*: See Figures 1 and 2.

FIGURE 6

PERCENTAGE OF HOUSEHOLDS OWNING MORE THAN 16-HORSEPOWER CARS BY
REGION, 1926–1938

Notes and Source: See Figures 1 and 2.

When estimating the logistic diffusion curve, least squares can be used to obtain values for α_0 and α_1. However, determination of the saturation ownership level creates problems. In practice the value of this parameter is usually set according to some prior information or at some "natural" level such as 100 percent of the market. Here there is no obvious natural value to take, particularly as we are considering the disaggregated car market. So, even if every household came to own a car, we would still need to consider the division of ownership between the different types. As a rough approximation we used the 63 percent aggregate ownership level achieved in 1970 as the aggregate saturation level. We allocated this between the different car types in the following manner. The graphs suggested a leveling-off of ownership of the 11- to 16-horsepower and of the more than 16-horsepower cars at approximately 8 percent and 5 percent, respectively, so those were the values we adopted. The remaining 50 percent we divided equally between the other two categories, thus setting the saturation levels of the 7- to 8-horsepower and 9- to 10-horsepower cars at 25 percent in each case. Experiments in changing the saturation levels assumed indicated that the results were relatively insensitive to the choice.

Several features are evident from the results shown in Table 1.[4]

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[4] Although all the diffusion curves estimated show a good deal of autocorrelation in the residuals, there is evidence in most cases of a tendency to return to the growth path (trend

TABLE 1
LOGISTIC DIFFUSION CURVES BY CAR TYPE AND REGION

	α_0	α_1	R^2	Durbin-Watson	Augmented Dickey-Fuller
7- to 8-hp cars					
Southeast	−3.8514	0.1739	0.91	0.62	−9.10
Southwest	−3.8683	0.2052	0.92	0.62	−12.02
Midlands	−4.1103	0.1974	0.92	0.66	−10.55
North	−4.5492	0.1831	0.93	0.62	−9.78
	$F_1 = 0.70$	$F_2 = 3.76$			
9- to 10-hp cars					
Southeast	−3.8324	0.1528	0.93	0.62	−3.20
Southwest	−3.8484	0.1725	0.94	0.64	−2.21
Midlands	−4.0231	0.1661	0.94	0.73	−1.73
North	−4.4871	0.1716	0.93	0.60	−3.32
	$F_1 = 0.47$	$F_2 = 5.25$			
11- to 16-hp cars					
Southeast	0.7989	0.0460	0.20	0.44	−8.73
Southwest	0.9707	0.0954	0.32	0.33	−7.32
Midlands	0.2990	0.0412	0.32	0.54	−7.18
North	−0.3031	0.0234	0.26	0.52	−12.20
	$F_1 = 1.28$	$F_2 = 4.43$			
>16-hp cars					
Southeast	−0.0580	0.1036	0.58	0.46	−4.61
Southwest	0.2657	−0.0239	0.14	0.34	−1.52
Midlands	−0.3892	0.0034	0.01	0.28	−1.59
North	−0.5787	−0.0054	0.01	0.31	−0.47
	$F_1 = 8.84$	$F_2 = 3.74$			
All cars					
Southeast	−2.2134	0.0933	0.95	0.79	−2.15
Southwest	−2.2830	0.1122	0.95	0.72	−2.78
Midlands	−2.4238	0.0960	0.97	1.04	−2.08
North	−2.6845	0.0820	0.97	0.92	−1.99
	$F_1 = 4.30$	$F_2 = 14.44$			

Notes: The augmented Dickey-Fuller test statistic, for stationarity around a deterministic trend, was constructed by regressing the change in the lagged endogenous variable on its lagged value and the lagged change along with a constant and a deterministic trend, and consists of the *t*-ratio on the lagged endogenous variable. Critical values for this variable need to be computed via Monte-Carlo methods, but as an approximate guide the 5 percent significance level with a sample size of 50 is about −3.5. The F_1 and F_2 are F-tests for common slope coefficients and intercept terms, respectively, across regions. These are distributed as $F(3,44)$ except for the total cars equations, in which an additional two years' data means that they are distributed as $F(3,52)$. The critical value at the 5 percent level for these statistics is therefore approximately 2.8. *T*-ratios are not reported, because the presence of strong serial correlation means that they are biased.

stationarity), as evidenced by the high values of the augmented Dickey-Fuller test statistics. Although critical values for these statistics are only available for larger sample sizes, several factors indicate evidence that the series examined are trend stationary. First, in many cases the statistics are well above the critical values for a sample size of 50. Second, though the sample size is small in terms of the number of observations, the span of the data in terms of the period of time covered is reasonably large. This second feature is equally if not more important in carrying out stationarity tests (Mills, ''Economic Historian's Introduction'').

Clearly, the two smaller-engine categories dominated the growth of aggregate car ownership. It is also evident that the growth rates in ownership of these categories is very similar for each of the regions examined. This is confirmed by an F-test for the null hypothesis that the four slope parameters are equal (F_1), which is not rejected at the 5 percent level. In contrast, the F-test for the joint equality of the intercept terms (F_2) is rejected in each case. These two results strengthen our interpretation of the later cross-section data as representing different points achieved along common diffusion paths, at least for the smaller-car groups that are most important in explaining the growth process.

Time series evidence on the diffusion process only enables us to address a limited range of causal questions.[5] Cross-sectional analysis permits an exploration of the role of the distribution of income and the occupational structure of the population. These issues have been investigated, using our data set based on 36 English counties, by estimating equations for the determination of car ownership as a function of the distribution of and level of income, the distribution of the population of each county between urban and rural locations, and the importance of the professions.[6] The estimating equation took the following form:

$$LC_{ij} = \beta_0 + \beta_1 PROF_i + \beta_2 CLAA_i + \beta_3 CLAB_i + \beta_4 RSW_i$$

$$+ \beta_5 RUR_i + u_i \qquad (2)$$

where the endogenous variable LC_{ij} measures the ownership level of cars of type j in county i.[7] *PROF* is the proportion of households employed in a professional occupation, *CLAA* the proportion with an earned and unearned income in excess of £500 per annum (the upper

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[5] Bowden, "Demand."

[6] An initial exploration of this model is reported in Bowden and Turner, "Some Cross Section Evidence," pp. 57–61.

[7] A problem that arises if the endogenous variable is defined as the percentage of households owning cars is that it is limited in the range of values it can take. In particular, it is constrained to lie between the values of 0 and 100. We have addressed this by making use of a logistic transformation of the data. Hence LC_{ij} has been defined according to the following expression:

$$LC_{ij} = \log [C_{ij} / (100 - C_{ij})]$$

where C_{ij} is the percentage of households in county i owning cars of type j. Although this appears similar to the logistic transformation used in modeling the time series diffusion path, in doing this we had a quite different purpose in mind. In the time series case, our intent was to capture a particular shape of the diffusion curve—hence, the choice of saturation level was important. Here our purpose was to transform the data so that the distribution of the endogenous variable satisfied the assumptions of the linear regression model; hence, we set a value of 100 for maximum diffusion in each case. To maintain consistency, those variables on the right-hand side of the regression, which are expressed as proportions (*PROF*, *CLAA*, *CLAB*, and *RUR*), have also been transformed in the same way.

TABLE 2
CROSS-SECTION REGRESSIONS, 1934 DATA

	C	PROF	CLAA	CLAB	RSW	RUR	R^2	Standard Error	Z_1	Z_2	Z_3
7- to 8-hp	−2.6180	0.2678	0.5030	−0.1797	0.0117	0.0747	0.79	0.19	0.56	4.59	0.36
	(2.33)	(1.47)	(3.42)	(0.75)	(1.74)	(5.54)					
9- to 10-hp	−1.8917	0.3303	0.5490	−0.3285	0.0042	0.0317	0.81	0.15	0.31	2.22	1.20
	(2.09)	(2.17)	(4.65)	(1.70)	(0.77)	(1.88)					
11- to 16-hp	−0.8235	0.3613	0.4569	−0.0639	0.0044	0.0504	0.84	0.15	0.73	2.74	1.02
	(0.94)	(2.44)	(3.97)	(0.34)	(0.84)	(3.05)					
>16-hp	−3.1986	0.6751	0.2964	−0.3866	0.0107	−0.0506	0.72	0.24	0.88	2.18	0.58
	(2.26)	(2.83)	(1.60)	(1.28)	(1.27)	(1.91)					
All cars	−0.0364	0.4358	0.5004	−0.2079	0.0065	0.0444	0.84	0.16	0.30	2.29	1.27
	(0.04)	(2.68)	(3.97)	(1.01)	(1.14)	(2.46)					

Notes: The endogenous variable is equal to $\log(C_{ij} / 100 - C_{ij})$, where C_{ij} is the percentage of households in county i owning cars of type j. Absolute values of t-ratios are given in parentheses below the coefficients. Z_1 the F-form of White's test for heteroskedasticity, Z_2 the F-form of Ramsey's RESET test for functional form misspecification, and Z_3 the Jarque-Bera test for non-normality of the residuals, asymptotically distributed as Chi-squared(2) under the null. The 5 percent critical values for Z_1, Z_2, and Z_3 are approximately 2.64, 4.23, and 3.84, respectively.

middle classes), *CLAB* the proportion with an earned and unearned income of between £250 and £500 per annum (the "middle" middle classes), *RSW* the regional standard wage, and *RUR* the proportion of the population living in rural areas.[8]

In general the model performs well with a high level of goodness of fit and little evidence of misspecification (see Table 2). As regards the economic interpretation of our results, four important features need to be noted. First, the professions variable (*PROF*) is consistently positive and significant, except for the smallest-car group. This lends support to the hypothesis that the car was becoming important as an occupational tool for this group of workers.

Second, only the upper-income section of the middle classes (*CLAA*) group generates positive and significant coefficients in the regressions. This lends support to the argument that ownership was still diffusing through the middle-income groups and therefore had not completed the second stage of the diffusion process.

Third, the regional standard wage variable (*RSW*) appears to play little role, in that none of the coefficients on this variable is significant at the 5 percent level. Thus, it appears that the level of income within each county was rather less important than its distribution.

Finally, the extent of ruralization of the population (*RUR*) appears to play some role in all but the largest-car group. This suggests that the

[8] The sources of our data are as follows. For *PROF*: *Census*, Industrial Tables, table 2, group 19; and Chapman and Knight, *Wages and Salaries*. For *CLAA*, *CLAB*, and *RSW*: Harrison and Mitchell, *Home Market* (constructed on the basis of taxation returns). For *RUR*: *Registrar General's Statistical Review*, table E.

returns to owning a vehicle were rather higher for those living in outlying rural areas than in urban areas, where distances to work tended to be smaller and the public-sector transport infrastructure tended to be better developed.

In the United States, the lesson of Ford and General Motors was that there were two ways to create a mass market for cars: (1) by lowering the price of the car, as Ford did, or (2) by lowering the initial outlay by making credit available, as General Motors did.[9] Our analysis has demonstrated that the market for motor cars in the United Kingdom was firmly entrenched in its second stage and that ownership was diffusing among the middle classes. Why, then, was not one or both of the American alternatives pursued in the United Kingdom to shift demand into a mass ownership stage?

General Motors' success in stimulating the development of a mass market characterized by increasing diversity was underpinned by its provision of credit.[10] By 1927, 64 percent of new cars in the United States were acquired on installment terms.[11] The impressive growth of finance houses specifically aimed at consumer durables and of hire purchase credit in this period suggests that hire purchase may have played a crucial role in market development in Britain in the interwar period.[12] In 1919 Continental Guaranty of America created a British subsidiary, United Dominions Trust (UDT), with the specific aim of handling credit sales for the motor car. The motivation was the future exploitation of the U.K. market for motor cars, and the rationale was the success of such schemes in the States.[13] By 1937 there were seven such finance houses, and hire purchase credit transactions rose from less than £1 million in 1920 to more than £15 million in 1939.[14] By 1928, 60 percent of cars sold in the United Kingdom were sold on installment terms.[15] The initial impetus to offer this type of sale derived, as it had in the United States, from its potential for overcoming problems resulting from the seasonal nature of demand.[16]

The terms and conditions of motor vehicle installment sales in Britain were among the best in Europe.[17] However, the major houses erred on

[9] Olney, *Buy Now*. Our thanks to Martha Olney for making this comment.
[10] He also included the used car trade in the closed body and the annual model as the other elements in this development (Sloan, *Years*, p. 150).
[11] U.S. Bureau of Commerce, *Installment*.
[12] Bowden and Collins, "Bank of England," pp. 124–25.
[13] Muir and Davies, "United Dominions Trust," p. 2.
[14] Shepherd, *Financial Institutions*, table A, 2.10, pp. 168–69; and Wood, *Nice Weekend*, p. 11.
[15] Bowden, "Demand," p. 254.
[16] Olney, "Smoothing Device." UDT's "Stocking Plan," by which the finance company provided money for the dealers to take in their normal quotas during winter—thus enabling them to meet the spring rush of new orders—won Austin and Morris over in 1924. Muir and Davies, "United Dominions Trust," pp. 4–5, 44.
[17] Bowden, "Demand," p. 258.

the side of caution in extending credit; rationing, in the form of qualitative restrictions, was applied. Gibson Jarvie, Managing Director at UDT, placed great stress on creditworthiness and respectability; in October 1929 he prepared a lengthy memorandum detailing the basis on which hire purchase schemes were to be approved. A detailed list of "acceptable" criteria for his potential customers was drawn up on the premise that a man's occupation would give a fairly reliable clue to whether he would be a steady payer of installments. The list of criteria suggests one possible explanation for the lag in the diffusion of motor vehicles in Britain. Jarvie deemed that, whereas salaried men were paid regularly (and hence were acceptable), many professional men did not receive a regular income and therefore constituted risk. The most desirable customer was a householder who owned his own business, was married, and had children. According to Jarvie, such an individual had a great incentive to pay installments regularly, and his ownership of property or investment was indicative of a thrifty nature.[18]

Credit rationing in the form of quantitative restrictions was also applied. The rationale behind the fairly onerous deposit premiums was to ensure that the potential customer had sufficient equity in the transaction to make it worth his while to maintain regular repayments.[19] A minimum deposit of 25 percent was usually required.[20] But a 25 percent deposit at prevailing purchase prices made the purchase of a car—even on the installment plan—prohibitive for the majority of the population (Table 3). Monthly repayments likewise acted as an additional form of credit rationing: on a small Morris in 1931 (Table 4), they would range from 27 to 58 percent of the annual income of an average salaried household.[21]

The terms and conditions of hire purchase schemes for motor vehicles not only reflected risk aversion but were part of a deliberate policy of making hire purchase respectable. It was marketed as a form of saving, akin to a mortgage and as such quite distinct from the working-class "tick" system of accounts with local retailers for basic necessities. This effort may, in the event, have acted to constrain the market for motor vehicles by precluding certain customers from hire purchase schemes. UDT's schemes were designed to appeal to (and were largely taken up by) "the more responsible business and professional classes, as well as to many tradesfolk."[22] The financial institutions therefore provided no supply-side stimulus that might have acted to shift the diffusion curve

[18] Muir and Davies, "United Dominions," pp. 62–63.
[19] Ibid., p. 64.
[20] Stewart and Arden, *Morris Cars*; and U.S. Bureau of Commerce, *Installment.*
[21] Chapman and Knight, *Wages and Salaries*, p. 32; and Feinstein, *National Income*, T55.
[22] Muir and Davies, "United Dominions," p. 66.

TABLE 3
1931 MORRIS PURCHASE AND HIRE PURCHASE DEPOSITS, BY MODEL TYPE

	Purchase Price (£)	25% Minimum Deposit (£)	Deposit As a Percentage of Average Salaried Income	Balance Outstanding (£)
8-hp Morris Minor				
Two Seater (fabric)	125	31.25	16.92	93.75
Tourer (coachbuilt)	130	32.25	17.46	97.75
Saloon (fabric)	135	33.75	18.27	101.25
Saloon (coachbuilt) with folding head	140	35.00	18.95	105.00
11.9-hp Morris-Cowley				
Two-seater (coachbuilt)	160	40.00	21.65	120.00
Tourer (coachbuilt)	170	42.50	23.01	127.50
Coupe (coachbuilt) with folding head	180	45.00	24.37	135.00
Saloon (coachbuilt)	185	46.25	25.00	138.75
Saloon (coachbuilt) with folding head	190	47.50	25.72	142.50
15-hp Morris-Oxford Six				
Tourer (coachbuilt)	250	62.50	33.84	187.50
Saloon (fabric)	265	66.25	35.87	198.75
Coupe (coachbuilt) with sliding head	285	71.25	38.58	213.75
Saloon (coachbuilt) with fixed head	275	68.75	37.23	206.25
Saloon (coachbuilt) with sliding head	285	71.25	38.58	213.75
18-hp Morris Isis Six				
Tourer (coachbuilt)	330	82.50	44.67	247.50
Saloon (coachbuilt)	340	85.00	46.02	255.00

into its third, mass market stage. Given prevailing purchase prices, the finance houses probably could not have effected the shift themselves. The terms and conditions of hire purchase were more favorable in the United Kingdom than in the United States, where a deposit of one-third

TABLE 4
MONTHLY REPAYMENT TERMS
(in pounds sterling)

Balance After Deducting Deposit	12 Installments	18 Installments	24 Installments
5.00	0.71	0.31	0.24
10.00	0.89	0.61	0.48
50.00	4.11	3.06	2.38
100.00	8.88	6.13	4.18
200.00	17.75	12.25	9.50

Notes: The repayments quoted include all interest charges.
Source: Stewart and Arden, *Morris Cars for 1931*, p. 39.

of the cash price was required on new cars and 40 percent on used. Too, until the mid-1930s the maximum contract maturity was 12 months for all types of car, extended to 18 months by 1934.[23] The apparent comparative advantage of Britain in financing terms was negated, however, by a comparative disadvantage in retail prices.[24] Average monthly payments (excluding finance charges) on a car acquired by hire purchase in 1931 would have amounted to £4.52 in the United States but £10.97 in the United Kingdom, the difference being explicable in terms of average purchase prices.[25] The policies of the finance houses may have served to confirm the manufacturers' views that the market was essentially middle class; the problem, however, was less the conditions of hire purchase than the prevailing prices.

The second strategy—price reductions, as practiced by Ford in the United States—proved equally incapable of shifting ownership into the mass market stage. The experience of Ford in the United Kingdom was that, given prevailing economies of scale, price reductions were unprofitable. In October 1935, Ford reduced the price of the Ford Eight by 13 percent.[26] For two years, the Ford Eight sold for £100, 20 percent less than its rivals. This move, however, failed to constitute the beginning of any supply-side shift.

The increase in Ford sales barely covered the fall in profits per vehicle resulting from the price reduction. Total Ford sales may have risen by a third in 1936, but profits only grew by 10 percent in the year after the reduction before declining from £773,000 in 1936 to £604,000 in 1937.[27] Economies of scale were such that, given the size of the existing market, price reductions at this level were unsustainable in the short run.[28] In the United States Ford could realize economies of scale and offer lower purchase prices because of the volume of output and the size of the domestic market; in Britain Ford was constrained by the size and skewed income distribution of the market. By 1938, Ford UK was producing 61,380 cars a year.[29] The highest volume of sales of the Ford Eight, in 1937, only reached 37,000.[30] Leading *models* in America in 1939 were being produced in volumes of 350,000 to 600,000.[31] In 1938

[23] Olney, *Buy Now*, p. 113.

[24] Differences in credit rationing were applicable in quantitative rather than qualitative terms. On both sides of the Atlantic care was taken to check the financial suitability of potential customers. Olney, *Buy Now*, p. 117.

[25] Bowden, "Analysis," table 5; Olney, *Buy Now*, pp. 113, 116; and Table 3 of this article. Total finance charges were 10.4 percent and 10 percent on the balance in the United Kingdom and United States, respectively (ibid.).

[26] Maxcy and Silberston, *Motor Industry*, p. 102.

[27] Ibid., app. D, table 9, p. 229.

[28] Ibid., p. 103.

[29] Political and Economic Planning, *Motor Vehicles*, table 26, p. 14.

[30] Maxcy and Silberston, *Motor Vehicles*, table 1, p. 102.

[31] Rostas, *Comparative Productivity*, p. 63.

Detroit was turning out a half-million Ford Eights a year.[32] Ford UK's abortive attempt to shift demand by price reductions on the American model thus adds weight to the argument that Fordist methods were only viable when large volumes of output enabled the firm to capture most of the economies of scale at each stage of production.

Price reductions might have been sustainable had Ford sales experienced sustained growth. In the event sales of the Ford Eight were not maintained, and the company even experienced a decline in its share of the market for 8-horsepower motor cars. In 1936 domestic sales of the Ford Eight were 33,000, and the company held 41 percent of the 8-horsepower market. By 1938, sales had slipped to 28,000, and the company's market share was only 34 percent.[33] From Ford's (and the other manufacturers') point of view, the evidence was that price reductions were a high-risk option that reduced profits in the short term without raising production or market share in the medium term.

When Ford introduced its price reductions, its U.K. competitors failed to react; no price-cutting war was inaugurated. The U.K. manufacturers chose not to risk responding to Ford with price cuts that might reduce their profitability; they continued their policy of retaining their shares of the existing market. Falling sales volumes and market shares of the Ford Eight, together with a slippage in Ford's profitability, acted to confirm this risk aversion strategy. Ford effectively conceded the invalidity of using price reductions to boost the market when, in 1937, its prices were increased (along with those of other manufacturers) but also rose relative to other manufacturers, so that its price became 10 percent rather than 20 percent cheaper than its main competitors'.

The strategies used in the United States to promote mass demand for motor vehicles—namely, hire purchase and price reductions—failed in the United Kingdom to boost ownership beyond its second, middle-class stage. These were not, however, the only explanations. The policies pursued by British manufacturers also acted to confirm and compound the existing nature of the market.[34] Ford's experience was viewed as being high risk in the short term and unprofitable in the long term, given prevailing market size and economies of scale constraints. There was thus no reason to follow Ford into a price war. In the interwar period no one manufacturer felt it could drive the others out, and there was little incentive to increase competition to try to dominate the market. The underlying ethos was to avoid risk and to opt for the maintenance of the status quo. This could be justified—insofar as

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[32] Maxcy and Silberston, *Motor Industry*, p. 111.
[33] Ibid., table 1, p. 102.67–68.
[34] Bowden, "Demand," pp. 261–64; and Bowden and Turner, "Cross Section Evidence," pp. 67–68.

short-term profitability could be—and was ensured by a policy that concentrated on extending the existing middle-class market.

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