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On the Return of Art Investment Return Analyses

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Abstract. We survey more than twenty studies estimating rates of return of investments in single art objects and whole collections and evaluate the various approaches to art price movements taken so far. The majority of the estimates find lower returns for investments in art objects than for investments in financial assets. However, most existing analyses are restricted to auction data and neglect transactions cost and taxation. They partly focus on mechanistic calculations and disregard the distinguishing institutional and behavioral characteristics of art markets. We look into the possibilities to capture and empirically estimate psychic returns from owning art.

Key words: Cultural economics, art markets, financial markets

1. The State of the Art

1.1. The Beginnings

'What are the returns on investments in art objects?' This question has attracted the attention of economists for a considerable number of years. One of the reasons for this interest certainly stems from lay people's belief that the art market yields huge profits in comparison to ordinary financial markets – at least when the investors are well informed. This belief has been nourished by the media which were all too ready to predict that the rapid increase in the general price level of auctioned art objects in the 80's, and in particular the ever higher record prices paid for paintings by van Gogh, Picasso and Renoir, would persist forever. While this simple prediction proved to be drastically false considering the marked downfall of such prices after 1989, the media renew the story of the extra returns possible in art markets whenever prices show an indication of rising again.

One of the first professional economists systematically studying the development of art prices and rates of return is Wagenführ (1965) whose study has been overlooked in the academic literature (it is written in German). Better known early works explicitly calculating financial rates of returns of auctioned paintings are by Anderson (1974) and Stein (1977). Ten years later Baumol (1986) published a paper which started a boom in studies on the subject, not surprisingly coinciding with the boom in arts prices in the late 80's.

1.2. Purposes of Art Return Studies

When calculating rates of returns on art three goals may usefully be distinguished:

Firstly, the art market is taken to be a *market as any other* and one endeavours to compare the financial returns attainable compared to alternative investments. Certainly, many art markets are characterized by particularly high transaction cost, are seriously incomplete and often very thin (there are few Michelangelos traded per year) but this also holds for some other markets. The crucial question is, however, whether really interesting results can be expected: Holding risk constant, and assuming some other conditions, in equilibrium the *total* net returns in the art market must be the same as elsewhere. Realistically assuming that the psychic rate of return for art is larger than for, say, bonds, it follows that the average *financial* return in the art market is smaller than in the bond market – and this is indeed what most studies have revealed (see Table I below).

Secondly, investigating art market returns is motivated by the internal dynamics of the economics profession (Frey and Eichenberger, 1994): it is a new area to apply *technical virtuosity*. The art market provides a welcome opportunity to use the modern techniques of finance and econometrics. Accordingly, attention has been devoted to the question of whether the art market is efficient. Granger causality tests have been used to analyze price and return independencies between

- various types of markets for art, e.g., between Old Masters and Impressionists;
- various locations, in particular between auction houses in New York, London and Paris;
- the art market and various financial markets, especially the New York, London and Tokyo stock markets and government securities.

In all the above cases the area is essentially irrelevant, what matters is that the instruments of investment analysis are competently applied.

Thirdly, art investments are analyzed by scholars who are themselves involved in the arts (William Baumol, Alan Peacock and Ruth Towse are prominent examples) and who are interested to know what is *specific* to the arts, and for whom the consumption aspect of owning art is central. At the same time, these researchers see the art market as an area where aspects otherwise treated lightly or negligently show themselves more clearly. One such aspect is the crucial importance of transactions cost in art dealings. Thus, for instance, the commissions due when buying or selling an art object at an auction are by far larger than in financial markets. Another primary aspect of art markets is the psychic benefits of owning art which in contrast are largely absent in the case of owning financial assets.

1.3. Outline of the Paper

The following section provides a brief overview of major studies on the rate of return on art objects, presenting both the result of the calculations and the

analytical approaches used. Section 3 pursues the question of what distinguishes the art market from other markets. We argue that art markets are characterized by a stronger prevalence of behavioral anomalies and of asymmetric information between buyers and sellers, as well as by thin markets. Section 4 considers to what extent, and under what circumstances, art is more likely to be a consumption good (with traditional collectors prevailing) or an investment good (with financial speculations prevailing). Section 5 offers concluding remarks.

2. An Overview of Results and Approaches

Table I provides a summary of major studies on financial returns on art investment. It documents that the research has gone far beyond paintings and has considered other pictures such as drawings or prints, antiques such as violins and American antique furniture, as well as various collectibles such as toy soldiers, old fire arms and even beer mugs. The various studies also differ greatly with respect to the period covered and its length, as well as many other attributes such as the (minimum) length of the holding period.

The studies are subject to four major problems, which can only be touched upon briefly:

(1) *Data.* Most analyses are based on auctions[1] (because the data are easily available and reliable) but disregard other sales which may be quantitatively more important and may show different price movements. Moreover, auction prices should be interpreted as wholesale prices referring mainly to dealers; private collectors usually buy at higher prices from, and sell at lower prices to, art dealing houses (see Guerzoni, 1994). Thus, dealers enjoy a systematically higher and collectors a systematically lower rate of return than suggested by the studies reproduced in Table I.

(2) *Transaction cost.* Most studies (an exception is Frey and Pommerehne, 1989b) disregard the high auction fees, which range from about 10 to 30 percent when buying and selling, as well as insurance and other handling cost because they vary considerably between countries, periods, auction houses and individual transactions (e.g., in the case of very high prices, auction fees are determined by bargaining and are likely to be lower; in other cases they may be even higher). At least for the past, such cost are often unknown or unreliable, but due to their size they significantly influence the calculated rates of return.

(3) *Taxation.* No study seriously takes into account the taxes due when transacting and holding an art object, though it is widely known that in many countries investment in art is one of the major possibilities of escaping or at least lowering the tax burden. It is, however, practically impossible to calculate rates of return net of taxation because taxes vary greatly between countries and periods. Moreover, it is often unknown where an art object bought is finally located and thus unclear which country's taxes apply, and, above all, what the differences between formal

TABLE I. Returns on investments in paintings, antiques and collectibles

Object	Time period	Return (%) Real	Return (%) Nominal	Return on alternative investments[a] (%)	Authors
Paintings in general					
	1800–1970		3.3	6.6 (st)[b]	Anderson (1974)
	1652–1961	0.55		2.5 (gb)	Baumol (1986)
	1635–1987	1.5		3.0 (gb)	Frey and Pommerehne (1989b)
	1716–1986	2.0		3.3 (BoEr)	Goetzmann (1993)
	1700–1961	0.9[c]			Buelens and Ginsburgh (1993)
	1946–1968		10.5	14.3 (st)	Stein (1977)
	1950–1987	1.6		2.4 (gb)	Frey and Pommerehne (1989b)
Specific paintings					
Impressionists	1951–1969		17.2		Anderson (1974)
do	1700–1961	3.0[c]			Buelens and Ginsburgh (1993)
Late Renaissance	1951–1969		7.8		Anderson (1974)
English paintings	1700–1961	0.6[c]			Buelens and Ginsburgh (1993)
Paint. from the 50's	1960–1990	5.9			Rouge *et al.* (1991)
Paint. of selected artists	1960–1988	6.7		higher (Jap. st) lower (US st)	Chanel *et al.* (1994)
Modern Chinese p.	1980–1990		53		Mok *et al.* (1993)
Other pictures					
Drawings	1951–1969		27		Anderson (1974)
do	1950–1970	11.3[d]			Holub *et al.* (1993)
Watercolors	1950–1970	15.8			Holub *et al.* (1993)
Prints	1977–1992	1.5		2.5 (US gb), 8.1 (st)	Pesando (1993)
Antiques					
Violins by Stradivari	1803–1987	2.2			Ross and Zondervan (1993)
Am. antiq. furniture	1967–1986		7	7.3 (90-day Tb)	Graeser (1993)
Collectibles					
Mettlach beer steins	1983–1993	–1.1		3.3 (Tb)	Kelly (1994)
Toy soldiers	1967–1982		19[e]		Wellington and Gallo (1984)
Antique firearms	1978–1984	–2.3		4.0 (90-day Tb)	Avery and Colonna (1987)
Collections					Frey and Serna (1990)
H. Mettler:					
Impressionist paint.	1915–1979	2.8		1.2 (Swiss gb)	
G. Guterman:					
Old masterpieces	1981–1988	3.2		6.9 (US gb)	
British rail pension					
Fund: overall		6.9		7.5 (FTI)	
Asiatica, old masterp.	sold 1987	3			
Impressionist paint.	sold 1989	9.9			

[a] gb = government bonds; st = stocks; BoEr = Bank of England rate; Tb = Treasury bills; FTI = Financial Times Index. [b] See Anderson (1974), p. 25. [c] See Buelens and Ginsburgh (1993, p. 1358, Tab. 5). [d] Paintings had about the same performance as drawings (see Holub *et al.*, 1993, p. 65). [e] Own computation on the basis of Wellington and Gallo's (1984) data.

TABLE II. Major analytical approaches to art price movements

Analytical approaches	Authors
Rate of return: repeated sales regression	Stein (1977)
	Baumol (1986)
	Frey and Pommerehne (1989b)
	Goetzmann (1993)
Rate of return: price indices	Anderson (1974)
	Goetzmann (1993)
	Buelens and Ginsburgh (1993)
Efficiency in the art market	Coffman (1991)
	Louargand and McDaniel (1991)
	Pesando (1993)
	Goetzmann (1994)
Determinants of art price movements	Goetzmann (1993)
	Chanel (1995)
Interdependence of art markets	Ginsburgh and Jeanfils (1995)
Heterogeneity of actors	Beltratti and Siniscalco (1991)
Psychic returns	Stein (1977)
	Frey and Pommerehne (1989b)

tax codes and actual taxation are. In view of the significant size of many of the taxes involved this is a major, but perhaps inevitable shortcoming.

(4) *Comparison to financial assets.* Almost all studies only make a rather superficial comparison to the rates of return for alternative investment opportunities. The relevant alternative investments are unclear, and for past periods insufficiently known. Even a comparison to the rates of return in stocks is unsatisfactory as they normally do not consider dividends (see, for example, Goetzman, 1993, p. 1374). For these reasons, most analyses make a comparison with interest rates on US and British government bonds or with US stocks. They thus neglect investments in other countries and in other assets such as houses or land which are often a closer substitute to art investments, not least because in many countries they also benefit from preferential taxation.

Table II shows the various analytical approaches with respect to art price movements taken so far.

The rate of return of investments in paintings, in other art objects and in collectibles has been intensely studied applying two different techniques. Some of the most important studies apply repeated sales regressions. They look at paintings that appeared several times in the market, and are mainly based on the Reitlinger (1961) data set. Other studies are based on art price indices some of which have been estimated with hedonic regression analyses. Some authors search for the underlying forces behind art price movements (e.g., income, inflation, stock prices movement), while others look at the interdependencies between the markets for

various types of paintings and of various locations. The efficiency of the art market is theoretically and empirically analyzed, and a few studies focus on the psychic return of art investments and look at the interaction of various types of actors (i.e., collectors and speculators) in the art market.

A *general shortcoming* of many returns studies (especially those applying advanced techniques of analysis) is their undue focus on mechanistic calculations and their disregard of the underlying behavior of the various actors. One of the purposes of this paper is to look at these missing *behavioral* foundations. In particular, we seek to analyze the determinants of the *psychic returns* from art, an aspect which has been completely disregarded in the literature. This comes as a surprise as in some studies the implied psychic return is at least as large as the financial return on art investments (e.g., Frey and Pommerehne, 1989b).

3. What Distinguishes the Art Market?

We propose that a major distinguishing characteristic of art markets is the greater importance of *behavioral anomalies*, i.e., of systematic deviations of individuals' behavior from the von Neumann-Morgenstern axioms of rationality and, in particular, from subjective expected utility maximization (see, e.g., Schoemaker, 1982; Machina, 1987). It has been shown that irrationalities such as the January-, Holiday-, Christmas- and Small-Firm-effects even exist in financial markets (Thaler, 1992, 1993; Shiller, 1989, 1990), i.e., that arbitrage does not wipe out supernormal profits in this most perfect market. Due to the data limitations and other problems mentioned only some restricted aspects of efficiency in the art market can be tested. Louargand and McDaniel (1991) find, for example, that the estimated selling price ranges given by the auction houses are unbiased predictions of the hammer prices.

There are good reasons why particular anomalies are even larger and more widespread with respect to art than in financial markets:

(a) Many private collectors are not profit oriented and are therefore particularly prone to anomalies (see, for example, Eichenberger, 1992). Circumstantial evidence suggests that private collectors are strongly subject to the endowment effect (an art object owned is evaluated higher than one not owned), the opportunity cost effect (most collectors isolate themselves from considering the returns of alternative uses of the funds)[2] and the sunk cost effect (past efforts of building up a collection play a large role).[3] A bequest aspect is also relevant: bequesters value art objects presented as gifts to their children more highly than the corresponding monetary value because they therewith transfer also part of their own personality.

(b) Corporate collecting, apparently undertaken in a profit oriented setting, is often in the hands of the firm's leading persons and is purposely managed outside the realm of profit making. Rather, especially when firms start to collect art, this activity belongs to the top managers' private power and is used for consumption purposes. A good example is Hermann Abs, who was CEO of the Deutsche Bank.

It is also typical that the best known institutional art investment was undertaken by the British Railway Pension Fund, i.e. an institution not under competitive pressure, which indeed made a lower return than it could have made with financial investments (see also Table I).

(c) Public museums are relevant buyers of art. The top administrators are subject to many severe constraints that prevent arbitrage. Thus they are (with few exceptions) neither able nor willing to sell art objects (see Frey, 1994), nor to change the speciality of their collections. In order to buy a particular, expensive art object they have to lobby with the responsible ministry for funds budgeted for this specific purpose; usually, these funds cannot be used for any different purpose. Moreover, fundraising is easier during business upturns (where prices tend to be high) and for acquisitions of the 'latest hyped contemporaries' (Singer and Lynch, 1994, p. 215). As a result, sellers to museums enjoy a systematically higher rate of return (Pommerehne, 1994). The managers of private museums are also heavily restricted in their activities by the trustees who often interfere and – being collectors themselves – tend to transfer their own anomalies to their museum.

In response it could be argued that for a market to be efficient it suffices to have a limited number of persons arbitraging. However, the market was only partly open in the past. Though the situation improved during the 20th century, arbitrage is still restricted. Short selling is impossible and supply is rather inelastic in the short term, as it takes about 3 to 6 months to market an object (i.e., to have it accepted by the auction house, to take photographs, to print and distribute the catalogues, to publish appropriate advertisements, etc.). Moreover, asymmetric information is prevalent in many instances. Typically, sellers are better informed about the qualities of their art object (e.g., their provenance) than the buyers. In some cases, however, sellers know little about the art they own largely because they did not purchase the objects personally in an organized art market; they may have inherited or have received them as a gift. It has been claimed (e.g., Coffman, 1991) that such sellers systematically undervalue their art so that a professional buyer may attain very high returns by buying cheaply and selling on an organized market. In an age of well publicized rocketing prices for art and antiques, the opposite may also be true: owners of art objects of little value expect much too high prices so that no trade takes place and easy profits are excluded. In line with these arguments, Pesando (1993) presents evidence of striking anomalies even in the market for prints which, due to multiplicity, is more liquid than that for other art objects. In particular, top paintings of top artists are traded on a very thin market. Art speculators may correctly forecast rising demand for top paintings but it is nearly impossible for them to foresee whether export and other restrictions arbitrarily imposed by government in response to fickle public pressure leads to a dramatic fall in price. More generally, the dependence of art prices on political and administrative interventions hinders successful arbitrage. The incompleteness of art markets which is partly institutionally induced makes the study of average returns over say, the market for paintings as a whole, relatively uninteresting. Of

further importance are the vast differences in the possibility of exploiting market imbalances which lead to some great gains but also to some great losses. It follows that further progress in the economics of the art market requires a thorough analysis of actors' behavior which depends crucially on institutional determinants such as museum organization or government and public administration intervention.

4. Art as an Investment or as a Consumption Good

The return from owning art does not only consist in price rises but also in the psychic return, i.e., art is also a consumption good. Economists' research on the (financial) returns has almost completely disregarded this aspect which basically distinguishes the art market from pure financial markets. In the following we analyze the determinants affecting the marginal choice between buying and holding art as an investment or as a consumption good, with the respective consequences for financial returns (see also Beltratti and Siniscalco, 1991). Our analysis also contributes to knowing what type of actors, in the extreme 'pure collectors' and 'pure speculators,' dominate the art market, and what short run gains and losses occur due to adjustments during disequilibria.

We distinguish five determinants:

(1) *Change in risk.* 'Pure speculators' cet. par. leave the market when unpredictable financial risk (price variations) as well as other risk factors (such as uncertain attribution) increase. 'Pure collectors' are, at least in principle, insensitive to these risk factors; they buy and hold an art object because they like it and do not mind if its price variability increases or if its attribution becomes more uncertain. The more pure collectors dominate the market, the lower is the financial return in equilibrium; the major part of the return is made up of psychic benefits.

(2) *Change in cost.* An increase in the cost of selling an art object, or a restriction on selling due to government intervention tends to drive out pure speculators but should not affect pure collectors because the latter do not intend to sell their holdings (though they sometimes actually do). A rise in the costs of storage and insurance may also systematically shift the balance between types of buyers and sellers because they are likely to affect them differently.

(3) *Unexpected change in taxes.* When transactions in art are taxed more heavily, speculators find it profitable to move to other markets. On the other hand, when the taxes are generally increased, people buying art only for financial reasons are attracted to the art market if it offers better chances to avoid or cheat on taxes than do investments in other assets. The art market is then increasingly dominated by pure speculators, and equilibrium financial net return equals that on any other market. A major consideration for collectors is whether an increase in the value of their holdings is taxed (in most countries, it should be, but taxation is often not carried out) or whether it is taxed only when sold. In the latter case, the market is made even thinner.

(4) *Unexpected change in regulations.* Despite GATT liberalizations and large scale integrations (European Union) the restrictions on the trade in art are becoming more severe (Pommerehne and Frey, 1993). This hampers international trade in art, leads to the establishment of local art markets and tends to favour pure collectors who do not intend to trade.

(5) *Change in genres and tastes.* For some genres of paintings, demand follows a systematic time sequence. Portraits are at first of little interest except for the person represented and his/her family and company, and are therefore little traded. Provided the painter turns out to become famous, the genre becomes unimportant and the picture is traded. An example would be portraits by Titian where it matters little today who is represented. Social determinants affect the psychic benefits of owning particular genres of art objects. For instance, today religious pictures representing crucifixion or the torturing of saints, or which are offensive to other religions, paintings of bloody war scenes or of dead game, or which are for some other reason 'politically incorrect,' are out of fashion and therefore in lower demand by private collectors. The corresponding market, as far as it exists at all, is dominated by buyers who are little affected by such considerations, in particular by art museums which can argue that they are only interested in the art historic aspects, or in their traditional area of collection. Thus pure collectors tend to dominate such a market, and in equilibrium psychic benefits are high and financial returns low for such paintings. Speculators will be active in such art markets only if they are able to foresee a change in taste – a rather unlikely event.

In the rate of returns studies the psychic benefits of art have so far been measured by comparing the differences between the financial returns of art investment to the respective returns on financial assets. This residual method is wrought with serious difficulties for the reasons given above.[4] We therefore suggest that three more direct approaches be considered.

First, the consumption benefits of viewing art should be revealed in the *rental fees for art objects.* In that case, the consumer pays for enjoying art while he or she is unaffected by changes in art prices. However, a market for renting art objects scarcely exists.[5] The question is why such a market revealing 'pure' psychic benefits from art is absent. The arguments normally offered are not convincing: The risk of lending can be covered by appropriate insurance and by collateral; the cost of transactions is not higher than in other areas where a rental market exists.

We submit that the reason must be sought in the property rights and a corresponding *ownership effect.* An art object yields *additional* benefits if it is owned (and not just rented) because the art object's 'aura' (see Benjamin, 1963) is therewith appropriated. Consequently, neither is a potential hirer willing to pay 'market' rents (covering capital cost, insurance, etc.), nor could the present owners be sufficiently compensated by such rents for forgoing the art object when it is rented out. It may be argued that this holds for private collectors but not for galleries and museums. However, most owners of private galleries are art lovers themselves and often behave more like private collectors than like purely commercial enter-

preneurs. Indeed, many major gallery owners have a sizeable private collection of their own (Beyeler of Basle is a good example). Thus, museums and galleries with very few exceptions only *exchange* art objects among themselves, but do not unilaterally rent out (Frey, 1994, discusses further reasons). Finally, in purely commercial galleries – usually organized in chains – the managers are not subject to the ownership anomaly. We expect and predict that such firms will rent out paintings and other art objects in the future but that this market will remain unimportant compared to the major galleries where important and expensive art is bought and sold. Thus, the art rental market is not likely to inform us about the *quantitative* aspect of the psychic benefits of art.

Second, a more promising, yet largely untried, approach to measurement of the size of psychic benefits from art objects is to estimate the marginal willingness to pay for viewing art in museums for which several approaches may be useful. One is to analyze the determinants of popular referenda on cultural budget expenditures or on buying specific works of art, such as the two Picasso paintings in Basle in 1967 (see Frey and Pommerehne, 1989a, ch. 10). A more indirect procedure is to infer the citizens' willingness to pay for museums from median voter models which, however, presuppose stringent conditions on the politico-economic process. For some museums located rather isolatedly in the countryside the travel cost method may be appropriate. Hedonic property price and wage equations may be used when the respective markets are known to function well. In any case, such analyses require that unconnected aspects such as the location and attractiveness of the museum building itself be carefully separated from the benefits derived from the art objects. Finally, contingent valuation methods based on careful surveys may under some conditions be an appropriate procedure to elicit individuals' willingness to pay for viewing art. Most likely, a skilful combination of the estimates based on a variety of approaches will yield the most satisfactory and robust estimates of the psychic benefits from art.

Third, one may derive the psychic benefit from consuming art by analyzing the prices paid for (near-perfect) copies of originals, assuming that such prices mainly or exclusively reflect user values (i.e. that such 'industrially' manufactured copies are not themselves collectibles). In the case of corporate buyers, it may also be useful to look at the advertising effect to the firms which can be captured by the cost of achieving the same effect by alternative means of publicity, e.g., newspaper or television advertisements.[6]

5. Concluding Remarks

The studies on the rate of return on investment in art have provided us with interesting insights. We now have a better knowledge of the aggregate returns of various art objects. We can confidently respond to the claims made, and expectations held, in the media and in the public about the financial profitability of the art market.

At the same time the existence of so many studies devoted to the subject has revealed substantial limitations. What has become clear is the futility of treating the art market as any other, and to use it simply as another area to which analytical (technical) virtuosity can be applied.

We argue in this paper that it is crucial to take the intrinsic properties of the art market seriously, and to integrate the institutional and behavioral differences to other markets into the analysis. In particular, more attention should be devoted to two aspects:

(a) Transactions cost which in the art market are so much larger than in other investment markets, especially in markets for financial assets. We have also pointed out the crucial importance of taxes for buying and selling decisions with respect to art. The size and nature of transactions cost and taxes depend on the particular institutions existing in a country and period, and may also differ substantially between types of art objects. The existence of these major cost and benefit factors intervening in trade prevents the same kind of (generalized) efficiency as prevails on financial markets from characterizing most art markets.

(b) There are major behavioral differences between the various actors on art markets which must be taken into account. We have argued that private collectors are more prone to fall prey to behavioral anomalies than speculators and professional dealers. What determines the size and development of the psychic benefits of owning art has received scant attention in the literature so far. Other actors subject to quite different preferences and constraints are the museum people and art dealers. Each of these groups earns quite different types of returns from acting on the art market, of which financial returns are only one, and perhaps not such a terribly important one.

Notes

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1. General treatises of auctions from the economic point of view are in book form, e.g., Cassady (1967), and in articles, e.g., Riley and Samuelson (1981), Milgrom and Weber (1982), Ashenfelter (1989) and various contributions in the 1989 Summer issue of the *Journal of Economic Perspectives*; a pathbreaking contribution is Vickrey (1961). A sociological analysis (with many references) is provided by Smith (1989).

2. Consider the case of persons owning paintings worth 1 mio ECU each. Few of such owners would be prepared to spend 50,000 ECU per year (assuming that the interest rate is 5 per cent per year) or roughly 4,000 ECU per month to have the benefit of looking at the painting hanging in their drawing room.
3. Some of these anomalies, especially the endowment effect, are also relevant for owners of private homes which constitutes an additional reason why the rates of return on art should be compared to rates of return on houses.
4. Similar conclusions have been drawn in growth theory where it has turned out to be rather futile to analyze 'technical progress' by looking at the difference between output and the input of labor and capital. The same holds for compensating differentials in labor theory.
5. This statement is based on our extensive survey of auction houses and major galleries. Of course, commercial art renting exists to a limited extent (examples are given by Stein, 1977, p. 1029), but it is not of any great importance compared to say, car or house rentals; moreover, expensive works are explicitly excluded (an example is Art Concept, Leasing Gesellschaft für moderne Kunst, in Wuppertal, Germany, which excludes from renting all art objects worth more than DM 15 000). Where commercial art renting exists it is often connected with renting other objects, such as furnished houses, or museum rooms for special occasions. But even this is on a small scale only. However, in Europe, most art renting programmes are heavily subsidized and concentrate on comparatively inexpensive contemporary art (examples are in the Netherlands and Denmark; for 'artotheks' in general, see Dietze, 1986). The prices asked have more the nature of a small fee than an (equilibrium) rental price corresponding to the exchange value of the art objects lent out. Some museums also lend out to private people part of the stock not exhibited but only on a very small scale. The rentals charged are, also in this case, far from a market rate.
6. We owe these suggestions to Dominique Sagot-Duvauroux.

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