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Is “cost disease” contagious? The case of early music ensembles ☆

Pierre François

Centre de sociologie des organisations (CSO–FNSP/CNRS), 19, rue Amélie, 75007 Paris, France

Abstract

The article aims to supplement traditional explanations of why performing arts institutions tend to run a deficit. The case of early music ensembles shows that the traditionally cited mechanisms do not suffice to explain why these institutions catch Baumol’s “cost disease.” Baumol’s model may be supplemented by another, based on two related hypotheses: the deepening deficit of early music ensembles is related to their going professional and is due to the fact that they are simultaneously competing with subsidized or-chestras on two markets: the concert market and the labor market for musicians.

Keywords: Cultural policy; Market; Labor market for musicians; Early music ensembles

1. Introduction

Cultural economics got started by tackling the problem of what causes the chronic deficit characteristic of performing arts companies: how were we to understand the fact that organizations devoted to putting on live performances seemed condemned not to be able to pay for themselves?¹ Few of the models proposed by either economists (Baumol and Bowen, 1966; Frey and Pommerehne, 1993) or sociologists (Di Maggio, 1986) to account for what clearly

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E-mail address: p.francois@cso.cnrs.fr (P. François).

¹ The London theater managed by Handel went bankrupt twice in 15 years—cost disease seems as old as the performing arts themselves.

seems an inevitability have been based on real development of a new art world, one that would have allowed the researchers to study in vivo the mechanisms by which performing arts institutions “catch” cost disease. The development of early music ensembles in France since the 1970s offers just such a case: a new art world developed in a relatively short time. Musicians worked to unearth a repertoire that in many cases had been forgotten for centuries, and to follow the rules for performing these works in effect at the time they were composed. These interpretive principles were practiced in France by ensembles of a sort to be found nowhere else in the world of serious music. The fact is that 25 years later, they too all have cost disease. The only way they have been able to develop despite their deficit has been to find patrons and subsidies; those that could not manage this have disappeared.² As shown in Table 1, none of the main early music ensembles is able to finance its activity; all need subsidizing of one kind or another to survive.

From the table it can readily be calculated that public subsidies account for an average of 32% of early music ensemble resources—one-third the proportion for traditional institutions—while ensemble receipts represent on average 61% of their budgets, an extremely high proportion for performing arts institutions. Early music is therefore a particularly interesting case with which to take up once again the classic cultural economics question: How is it that performing arts institutions seem condemned to catch to cost disease? By reconstructing the usual ensemble trajectory, we can follow step by step how the deficit deepens.

The case of early music ensembles presents an additional advantage. Studies of the question generally proceed on the basis of an opposition between two modes for financing artistic activity, the public and market varieties (Dupuis, 1990). The assumption is that the public authorities have been taking performing arts companies under their wing since time immemorial without ever requiring them to practice sound business management, whereas market-driven funding is understood as either a new paradigm that these organizations should comply with in order to be more effective, one that would enable them to cancel their deficits, or a constant danger that could cause them to disappear because they are not turning a profit. I propose to explain the origin of cultural institution deficits not by opposing market and public forms of regulation, but by showing that what forces young, developing performing arts companies to run a deficit is instead a *combination* of competition dynamics and public subsidies. In this respect, the world of early music is an extremely valuable example. As I have shown (François, 2004), early music ensembles have to engage continuously in market transactions to produce their performances. All early music ensemble activity, from the way the work is organized (hiring of single-contract rather than permanent-contract musicians) to performance scheduling (occasional collaboration with concert organizers) involves market relations. Yet

Table 1

	Public subsidies (%)	Sponsorship/Patronage (%)	Own receipts (%)	Total (millions of francs)
Les Arts Florissants	18.2	10.9	70.9	27.5
Chapelle Royale	42.4	0	57.6	16.5
Ensemble Baroque de Limoges	45.7	0	54.3	7
Talens Lyriques	7.8	21.9	70.3	3.2
Seminario Musicale	20	10	70	1.85
Musiciens du Louvre, Grenoble	38.9	0	61.1	18
Concert Spirituel	50	11.1	38.9	4.5

Table constructed on the basis of indications from ensemble managers. Total budget is in millions of francs (1€ = 6.56 francs).

despite the practical relevance of the market regulation mode, these ensembles are systematically in the red, surviving only thanks to support from public authorities. We therefore cannot determine either the origin of ensemble need or the impact of subsidies using the state-vs.-the-market opposition.

I first review briefly the major models that have been developed to explain the chronic deficit of performing arts institutions, assessing their relevance for the early music case and showing that they do not suffice to explain the deepening financial needs of these ensembles. This leads me to propose a new model to supplement Baumol's, while specifying the mechanisms by which cost disease is transmitted.

2. Return to Baumol's law

Baumol and Bowen (1966) were the first to try to explain the cost disease that seems to hit all performing arts institutions. Their model applies to the long-term and was designed to work at the macroeconomic level. They distinguish between two economic sectors, one characterized by increasing productivity (A), the other by a constant productivity level (B). Wage levels in the two sectors evolve similarly: sector B indexes its wage patterns on sector A's, which means that sector B's/N's payroll costs increase while its productivity does not. Sector B thus falls further and further into the red.

Because Baumol's model shows that the deficit is due not to bad management but the inevitability of divergent sectoral growth, it was soon seized on by art world actors as a kind of heaven-sent justification of their situation.³ Early music actors were no exception, as shown in the following comments from this theater director:

It is Baumol's law. A watchmaker needed 2 months to make a watch, whereas Molière needed eight actors to do a play. Now you still need eight actors to do the play, but Swatch will make you the watch in 30 s. It is not inflationist logic per se. Costs go up, but the receipts do not increase proportionally. "That's what state aid is there for" (interview, June 16, 1999).

We have to be somewhat wary of hasty invocations of Baumol's law used to explain, and thereby justify, the tendency of early music institutions to run a deficit. This model does not explain why those institutions' deficits increase. The mechanisms identified by Baumol and Bowen to explain transmission of cost disease are operative only in the long-term, not in the short or medium term. The fact that an archaic sector indexes its wages on those in advancing sectors is not likely to bring about a major gap in the short-term. It is only in the long-term, after several decades, that the gap becomes such that deficits come to threaten archaic institutions' very existence.

All attempts to verify Baumol's model consider long-term situations, beginning with the one done by Baumol and Bowen themselves. These authors analyzed payroll cost evolution (in Broadway theaters and symphonic orchestras, for example) over a 35-year-period and con-

² In this article I start with the principle that deficit corresponds to the level of non-market receipts. This raises the question of whether subsidies create the deficit or follow it. In any case, an ensemble with a deficit that can not manage to find subsidies is doomed either to disappear or go into deep freeze.

³ Cleverly, cruelly, and very carefully, Jorge Palma has noted the many instances of discrepancy between economists' discourse and how it is appropriated by actors in the French art world to justify their situation (Palma, 1990).

cert cost (New York and Cincinnati orchestras) over a 120-year period.⁴ Dominique Leroy's verification for the French case (Leroy, 1980) covers the period from 1860 to the 1970s. It would thus seem that Marianne Felton's conclusion in her (Felton, 1990) study of the Louisville, Kentucky orchestra is generalizable: Baumol's law is validated only if we reason in the long-term. In the case of many early music ensembles, the deficit sets in much earlier. They catch cost disease after only a few years in existence, sometimes only a few months—the productivity differential does not have time to widen before they fall “ill.” To account for early music ensemble deficits, then, we have to leave aside Baumol and Bowen's model, at least temporarily, and look for other mechanisms that could explain the ensembles' situation.

3. Deliberately running a deficit?

The above-mentioned limitations of Baumol and Bowen's model are not specific to early music. Studies done in the 1970s and 1980s from a free-market perspective showed that the supposed “deficit inevitability” that performing arts companies succumbed to was perhaps not as inevitable as the two American economists had claimed. These studies were inspired by economic analysis of bureaucracy (Buchanan, 1968; Tullock, 1978), and they refocused the problem in two ways, considering it a matter of micro rather than macroeconomics, and understanding deficit not as an unavoidable effect of divergent economic dynamics but the result of a deliberate strategy. These studies began with the hypothesis that there was little oversight of cultural enterprise managers. The consumer arrived on the scene only after production and he only paid part of the cost of the service received; he therefore had less of a say than if he were paying the whole price. And the state subsidizing institution, which intervened before production, could not efficiently oversee the cultural enterprise because such enterprises have a monopoly over information about their costs, and their products are prototypical, meaning that production functions are difficult to determine. The weakening of oversight and control both upstream and downstream of production meant that managers had near-complete budget discretion. Budget funds could be used to three ends: increasing production (increased quantity strategy), improving program quality (increased quality strategy) or spending more liberally on the different factors of production (additional costs strategy).⁵

Part of the deficit of institutions specialized in early music is indeed due to the strategies followed by their managers. Three types of practices may be likened to the “deliberate strategies” described in these models. The first involves the fact that when early music ensembles start out, they are made up of amateurs. They can be said to have professionalized themselves in that the actors' skills did not necessarily exist at the outset but were constructed as the early music movement developed. The managers of these ensembles invented their job; at the outset, their activity was not really comparable to any other in the music world at the time. Learning by doing was no smooth process; the history of early music ensembles is marked with managing errors that may have threatened an ensemble's survival and in any case put the company into the red. During its first years of existence, Les Arts Florissants had several managers whose skill was not up to the company's ambitions, as a former manager recounts:

⁴ See Baumol and Bowen (1966), pp. 190 and 218.

⁵ For further discussion of these various scenarios and applications of them, see Grampp (1989); Dupuis (1983); Frey and Pommerehne (1993).

The blunders were small at first, but they ended up making big ones. They were in the red for Charpentier's *Médée*—for the CD in particular. They never recouped their outlay, and they still had to pay the costs. Later, the deficit produced its own deficit: we had to pay the artists and suppliers, so we were not paying the social insurance contributions, and there were penalties, etc. That was under A's management—though she was not entirely responsible for it—and they started pushing her toward the door during her second pregnancy. Then Christie put up the person who was his personal secretary at the time. B.B. had lots of fine qualities but he had never learned this business. He made serious mistakes: drew up a balanced budget but left out the VAT. He stuck to his budget, so in the end he was obviously losing money. He was a really good person, but he just did not know. From the moment he got there, things got exponentially worse. He was in charge until late 1985; they called me in to the rescue in late 1986. My first job was to estimate the deficit—no one had any idea what it amounted to. When I got there on September 1, 1986, they had not even done the accounts for 1985 (interview, June 15, 1999).

While deepening deficit may result from amateurism, it can also result from a deliberate strategy on the part of ensembles hoping for financial support from public authorities who for their part are not eager to help institutions that seem to be managing to survive on their own resources but are willing to intervene to prevent them from disappearing altogether. This strategy amounts to keeping the ensemble's financial situation unbalanced enough to make intervention either desirable or necessary, without leaving oneself open to overt criticism for bad management. Attaining such a "balance" is a delicate, risky undertaking, as a manager explains:

The idea was to juggle it all so that at the end of the year we could present a balanced budget, or just a slight deficit, to the administrative board—which included musical director representatives—so that they would increase our subsidies for the following year. Without going so far as to drive trucks around to use up the gas, which is what they are rumored to do in the army, we wanted to be able to say, "That's how it is, and we had like 100 or 200 thousand francs more next year to run the ensemble" (interview, June 25, 1999).

This outright "deficit strategy" is not just a wild gamble. Early music ensembles are an integral part of the music world in France and represent some of the finest successes the music world at large has known in the last 20 years. If the Musiciens du Louvre or Les Arts Florissants were to disappear, this would cause a great stir in the music world. Public authorities or patrons can decide to intervene to avoid negative publicity.

In more systematic terms, we can say that it would be hard for institutions specialized in early music to proceed as if they were not betting on getting financial resources that in fact they are not sure to obtain. Like all music institutions, early music ensembles set up their schedules several years in advance. They often have to invest to get their programs realized, reducing program sale price and taking on part of the deficit directly themselves. In doing so they are acting in anticipation of the funding that state and local authorities will allot them. In most cases, however, and particularly where the state is concerned, these sums are redetermined each year, and the ensembles are not told the amount they will receive until the last quarter. They are thus faced with a delicate choice: they can either cease their activities while waiting for state subsidies, or act in anticipation of renewed or increased subsidies and thereby put themselves into an extremely precarious situation. Clearly, the deficit strategy reflects more than a willingness to gamble on the part of ensemble managers; it pertains to the disconnection

between ensemble receipts and ensemble expenses. The subsidy allocation schedule and the cash investment required are such that they are likely to create a high deficit in the long-term.

Amateurism, gamble-taking behavior, temporal disconnection between receipts and expenses—and management strategies, another possible cause of deficits. However, none of this explains what makes the deficit dynamic *necessary*. Clearly in each of the cases just described ensembles made a deliberate choice, but such strategies are risky: the public authorities may very well decide not to cancel the ensemble's deficit, judging it to be due to poor management. This means that at least some managers probably will not adopt such a strategy, particularly if their ensembles do not have the kind of renown that might ensure success. And yet the histories of the different ensembles clearly show that the shift from amateur to professional status *always* goes with an increase in funding needs and that ensemble growth *never* goes with a balanced budget. Once again, how are we to understand this inevitability? What mechanisms cause these ensembles to catch cost disease?

4. The professionalization model

4.1. The argument

I will try to demonstrate that these mechanisms are related to two characteristics of early music ensembles: first, they have to be competitive on two markets simultaneously; second, they are engaged in a process of professionalization. These characteristics explain why they are inevitably in the red. It should be recalled what it is involved in preparing early music concerts. An ensemble decides to put on a particular program; it assembles the musicians and has them rehearse; it finds engagements with publicists and bills the publicists part of production costs, namely, concert cost (musicians' fees, etc.), rehearsal cost, musicians' expenses, and structural costs. Overhead costs are usually paid for with revenues other than concert sales, but concerts usually have to pay for themselves.

Early music ensembles use the services of freelance musicians hired by single program contract and must therefore offer wages likely to attract and keep them. Here they are of course in competition with each other—an ensemble cannot hope to obtain the services of the best musicians if it offers half of the fee other ensembles are offering. But they are also in competition with the other employers of the music world. Before the late 1970s, very few musicians played early instruments and even fewer made a living at it. For most, early music was a hobby or passion; in no case was it the musicians' main source of income. This situation gradually changed over the 1980s. Top quality musicians came to be attracted by this labor market, which offered many opportunities. But ensembles can only attract these musicians if they pay them a fee not far below that proposed by traditional structures. Fees for musicians specialized in early music are not downwardly elastic/show a low degree of downward elasticity.

Early music ensembles could perhaps stay in the black if the only constraint was integration into the musician market. Their difficulties arise from the fact that they are simultaneously caught up in another market, the concert market. Here they are once again in competition with traditional structures, which are subsidized heavily enough not to have to charge concert organizers cost price; they thus pass on only a small part of cost to organizers. At first the early music world was made up of amateurs: ensembles had low or nonexistent fixed expenses and their musicians were paid only modest fees; they could offer highly competitive prices for their

productions. But when their personnel turned professional and their costs began to rise, they got caught up in a competition game that makes it impossible for them to bargain on the basis of internal budget constraints.

Because they are necessarily implicated in both musician and concert markets, early music ensembles have only one variable they can adjust: their deficit. They cannot offer concert prices that would keep them competitive by substantially lowering musician fee level; if they did, they would not be able to hire the best instrumentalists. Nor can they obtain high enough prices from organizers to be able to balance their budgets; if they charged high prices, their only possible customers would be a few heavily endowed institutions—which would have to want to hire them. The professionalization dynamic allowed early music ensembles to penetrate the market without being subsidized, but in order to stay there they have to be able to compete at least minimally with heavily subsidized conventional structures. In sum, their survival depends on their accepting—and managing—a deficit. Clearly the mechanisms by which cost disease is transmitted are not those identified by Baumol and Bowen. What explains the fact that cost disease—which traditional musical institutions are already “infected” with—gets transmitted to early music ensembles are the market mechanism and the competition game.

4.2. *The model*

The above argument can be substantiated by means of a simple mathematical formalization and examples from my survey of early music ensembles. The model should allow first of all to stylize actor behavior on the different markets, which in turn will allow for specifying which variables they can act on as well as the mechanisms that work to deepen the deficit. In other words, the model should allow for clarifying the reasoning and transposing it to other performing arts sectors. But the point of the model is also to facilitate dialogue with economists. The problematics of sociologists and economists working on the performing arts partially overlap. Economists are willing to do empirical study and test their models on historical data, and sociologists have come to recognize their own concerns in the inquiries initially formulated by economists. However, this common ground is worked unequally: economists model actors’ behavior, but sociologists make little attempt to translate their field results formally. It is not my intention to enter into the epistemological debates on the use of formal models in economics and sociology.⁶ My point is simply that the schemata I have just described are easily formalizable, and providing a formalized version of the argument improves conditions for interdisciplinary dialogue. My procedure remains sociological in that it is based not on a deductive approach that models behaviors on the basis of a predetermined set of hypotheses, like economists do, but rather an inductive practice of stylizing empirically observed behavior.⁷

To simplify the reasoning, I hypothesize that the costs of managing early music ensembles are covered by subsidies from public authorities and patrons but that those subsidies do not cover artistic expenses. I calculate for one concert only; total deficit over 1 year would be reached by calculating the sum of deficits for all concerts given in that year.

⁶ On these points see, among others, Hirsch et al. (1987); Grenier et al. (2001).

⁷ On inductive and deductive uses of modeling see Chiappori (2001); Hirsch et al. (1987).

4.2.1. Defining early music ensemble deficits

An ensemble has two resources for financing a concert: concert selling price and the deficit itself. This can be written

$$C_1 = P_1 + D_1 \quad (1)$$

where

C_1 = concert cost,

P_1 = concert sale price,

D_1 = deficit created by concert.

Concert cost may be brought down to payroll cost, since musicians provide the instruments and are solely responsible for instrument purchase and upkeep. Payroll cost is broken down into concert cost strictly speaking, i.e. sum of fees paid individually to musicians for their concert performance, and share of rehearsal cost to be absorbed by sale of the concert to organizers.⁸ The musicians hired to perform the program are brought together for a few days of paid rehearsal; in general the fee for a day's rehearsal is equal to the fee for one concert. General rehearsal cost is then spread out among the different programmers that buy the concert (concert halls, music festivals). If the ensemble only sells its concert to two programmers, rehearsal cost will be divided up between them; if it manages to set up a 10-concert tour, rehearsal cost is spread among the 10 programmers. This may be written

$$C_1 = L_1 W_1 + a_1 L_1 W_1 \quad (2)$$

$$C_1 = L_1 W_1 (1 + a_1)$$

where

L_1 = number of musicians,

W_1 = pay for each unit of work for a concert, i.e., fee,

$a_1 = r_1/c_1$,

r_1 = number of rehearsal fees, c_1 = number of concerts in the tour.

Eq. (1) may therefore be rewritten

$$P_1 + D_1 = L_1 W_1 (1 + a_1)$$

from which it follows that

$$P_1 = L_1 W_1 (1 + a_1) - D_1 \quad (3)$$

Early music ensembles will therefore try to sell their productions on the concert market at price P_1 . On this market they are in competition with other early music ensembles, which are not very highly subsidized either, and with traditional orchestras made up of permanent-contract musicians. In other words, the level of subsidies these orchestras receive allows them to finance their management needs and a substantial part of their artistic expenses. Here we will estimate that subsidies cover β of traditional orchestra's artistic expenses. Concert sale price, then, has to cover $1 - \beta$, that is α , of payroll cost for the concert.

⁸ Musicians' expenses have not been included here. They vary roughly proportionally to fees, meaning this analysis would not be fundamentally changed if they were taken into account.

What is payroll cost for a traditional orchestra concert? As mentioned, these orchestras employ a permanent staff of musicians who are paid in exchange for a certain number of hours per month (or a certain number of 3-hour “services,” depending on the institution). To simplify, we can say that W_2 is wages paid to a musician for 3 hours’ work in a traditional orchestra, what we will call these orchestras’ “fee equivalent.”

This means that

$$P_2 = \alpha L_2 W_2 (1 + a_2) \quad (4)$$

where

$$\alpha = 1 - \beta,$$

β = subsidy level for a traditional orchestra,

P_2 = traditional orchestra concert price,

L_2 = number of orchestra musicians,

W_2 = amount paid for a service or “fee equivalent”,

$$a_2 = r_2/c_2,$$

r_2 = number of rehearsals, c_2 = number of concerts.

The hypothesis is that early music ensembles have to compete on two markets: the concert and labor markets. This hypothesis has two implications:

- On the labor market, wage level for early music musicians has to be equal to that for traditional musicians. In other words:

$$W_1 = W_2 = W \quad (5)$$

- On the concert market, early music concert prices have to be close to those for traditional ensembles. In other words:

$$P_1 = P_2 = P \quad (6)$$

These two hypotheses enable us to determine the deficit level for early music ensembles.

From Eq. (6) (condition for a balanced budget on the concert market), it follows that

$$L_1 W_1 (1 + a_1) - D_1 = \alpha L_2 W_2 (1 + a_2)$$

or

$$D_1 = L_1 W_1 (1 + a_1) - \alpha L_2 W_2 (1 + a_2)$$

Given Eq. (5) (condition for a balanced budget on the labor market), it follows that

$$D_1 = W [L_1 (1 + a_1) - \alpha L_2 (1 + a_2)] \quad (7)$$

These are the conditions under which an early music ensemble can balance its budgets. We can now examine the nature of competition on the two markets.

4.2.2. *Competition on the market for musicians*

Early music ensembles could eliminate their deficit if they paid nothing to the musicians they work with; this can readily be checked using Eq. (7). Indeed, this is what amateur status means: when ensembles first come into existence, concerts are irregular, musicians are not paid systematically, management is on a volunteer basis or handled by the musical director—as a violist playing in Paris cafés in the late 1970s explains:

We played in a really nice place called the *Vieille Grille*, a café in the fifth arrondissement. Every Monday evening they gave little concerts. People consumed and we played. The people who came were pretty much early music fanatics. In fact the boss had teamed up with an instrument-maker. We did not know anything about that. We were doing what we wanted to be doing and having a good time. It was not always great quality, of course (interview, June 1, 1999).

As the movement became more successful, the musicians became more demanding; they began devoting all their time to early music, and asking for higher pay. Professional musicians, attracted by the work possibilities that these ensembles represented for them, started playing early instruments and making wage demands that were no longer those of the movement pioneers.

In this respect, the newcomers' situation substantially changed as the movement became professionalized. An ensemble created in the early 1980s had few competitors; working conditions for musicians specialized in early music had not yet stabilized; and it was still possible to get musicians playing in the main baroque ensembles to collaborate occasionally for free with another one. In the late 1990s, however, a new ensemble could only hope to penetrate what had now become a highly competitive market if the productions it had to offer were of excellent musical quality. Consequently, musicians wishing to develop their ensemble's activity had to hire professional musicians, less ready to sacrifice their fee than in the days when everyone was an amateur. Fairly quickly the new ensembles had to offer musicians' wages comparable to those offered by better-known ensembles and traditional orchestras.

Clearly the mechanisms for transmitting cost disease identified here are different from those discussed by Baumol and Bowen. The mechanism is indeed one of indexation, but it does not come into play for archaic vs. progressive economic sectors but between two segments of a single labor market. What is decisive here is competition between a subsidized segment and a non-subsidized one. Still, if this were the only competition ground, the ensembles could compensate for the wage increase by increasing their intake, i.e. selling their concerts for more. The problem is that they also have to be competitive on the concert market.

4.2.3. *Competition on the concert market*

In what way does the imperative of competing on the concert market imply new constraints for early music ensembles? To specify those constraints, we need to distinguish between sedentary and touring traditional orchestras.

4.2.3.1. Traditional orchestra on tour. When a traditional orchestra is on tour, the number of same-program concerts is the same as for an early music ensemble: both types of musical ensembles rehearse 3 days, then start on a 12-concert tour. Rehearsal cost is thus spread out over the same number of concerts.

In other words

$$a_1 = a_2$$

We know that $D_1 = 0$ if

$$L_1(1 + a_1) = \alpha L_2(1 + a_2) \tag{8}$$

Therefore, $D_1 = 0$ if:

$$L_1 = \alpha L_2$$

In order for the early music ensemble to have 0 deficit when competing with a traditional orchestra on tour, it has to be able to sell a much smaller production than a traditional orchestra program. The subsidy level for traditional orchestras is around 80% in continental Europe and the United States, so $\alpha = 20\%$.⁹ In order for an early music ensemble to organize a concert without running a deficit, the number of its musicians can amount to no more than 20% of the number of traditional orchestra musicians. In other words, if the concert organizers agree to buy a 10-musician early music concert for the same price as a symphonic concert, then the early music concert can stay out of the red. This situation does occasionally occur; the reputation of some ensembles is such that they manage to sell very expensive productions at cost price.¹⁰ They may also be the only ones to offer a certain type of repertoire, and organizers may be willing to pay more given this monopoly.

Usually, however, organizers refuse to swap a symphonic concert for a chamber music concert, so ensembles have to be willing to increase their deficit to sell their productions. An administrator speaks in these terms of the difficulty he had selling Les Arts Florissants productions at cost in the United States. To further develop its activity, the ensemble had to be willing to lose money on tour:

When we decided to attack the United States, we decided we would do it every year, not *regardless* of price, but with a controlled deficit determined in advance. I was convinced we would have to subsidize our first American tours—and I do not think it went off so badly. I did not see how we could come out even. I knew the cost of the concerts, the necessary expenses, the travel expenses. I did not see how we could sell the concerts for that price, for utterly esoteric repertoires. You go see an American programmer—even if you do it through your agent, who is not exactly up on everything himself—you go see him with a program of music by Joseph Pignolet de Montclair—just imagine the looks you get. William Christie was unknown in the US at the time, and you could not say the singers were stars (Interview, July 6, 1999).

Moreover, the more successful ensembles become, the bigger the productions they program. Ensembles' careers in this respect follow that of their musical directors. When the ensemble is founded, the musicians are willing to specialize in a small repertoire that remains outside traditional repertoire turf. But later they are led to take up a more "traditional" repertoire; i.e. the

⁹ See François (1998).

¹⁰ This is particularly true of certain English baroque orchestras. Failing to obtain subsidies, they have been forced to sell their productions at cost price. Recording is often their first activity because their productions are too expensive to find buyers.

classic and Romantic symphonic repertoire, and above all opera. Now they can no longer play on size effect to balance their budget, and early music concerts will necessarily be unable to pay for themselves. When traditional orchestras and early music ensembles are the same size and both are on tour, the ensembles cannot come out even. To be competitive, they have to accept a deficit. Once again, everything is played out in the competition between subsidized orchestras and newcomers to the market. This also comes through when we detail the mechanisms at work for an traditional orchestra that stays put.

4.2.3.2. *Sedentary traditional orchestra.* France's traditional orchestras seldom go on tour. The Plan Landowski, which instituted and now provides the funding regulations for most French traditional orchestras, also specifies their mission: they are to ensure music diffusion for a particular locale, usually either a city or *région*.¹¹ They do go on tour once a year, but most of their productions are performed in the same place, often in the same concert hall. Between 1996 and 1998, two-thirds of Orchestre National de France concerts took place in Paris whereas from 1988 to 1997, Les Arts Florissants performed only 13% of their concerts in the capital and 13% in Basse-Normandie, though this *région* was their main sponsor.¹² Staying put has implications for recouping rehearsal costs. Obviously a traditional orchestra performing its concerts in a single venue has to change its programs more often than an early music ensemble performing the same program in different cities. In general, sedentary traditional orchestras give two performances of each program they prepare, whereas early music tours comprise between 6 and 12 concerts, depending on the ensemble.¹³ Clearly when the traditional orchestra stays put, the number of concerts it can give for one program is below that which an early music ensemble gives for the same number of rehearsals.

How can an early music ensemble come out even when it is competing with sedentary orchestras? Once again, there are two cases, depending on whether the two groups are the same or different sizes.

- Groups of the same size:

As shown, $D_1 = 0$ if

$$L_1(1 + a_1) = \alpha L_2(1 + a_2) \tag{9}$$

If the early music ensemble has to offer productions that are the same size as a traditional orchestra's at the same price level—in other words, if $L_1 = L_2$, then Eq. (8) becomes

$$1 + a_1 = \alpha(1 + a_2)$$

So it comes that

$$\alpha = (1 + a_1)/(1 + a_2)$$

¹¹ Traditional musical institutions are sedentarized across Europe and in North America, meaning that the competition which French ensembles are up against takes approximately the same form in France as abroad.

¹² On the Orchestre National de France see François (1999); on Les Arts Florissants, François (2004).

¹³ Between 1996 and 1998, Orchestre National programs were given an average of 1.5 times; Arts Florissants programs, an average of 5.5 times.

It follows that

$$\beta = 1 - [(1 + a_1)/(1 + a_2)]$$

In other words, the early music ensemble will be in the red as soon as

$$\alpha < (1 + a_1)/(1 + a_2)$$

i.e. if

$$\beta > 1 - [(1 + a_1)/(1 + a_2)]$$

or if

$$\beta > [r(c_1 - c_2)]/[c_1(c_2 + r)]$$

On this basis it can be shown that ensemble deficits necessarily deepen as ensembles go professional. Obviously they have no means of affecting the level of subsidies received by traditional orchestras (b) or those orchestras' diffusion strategy (a_2). The assumption here is also that they cannot affect orchestra size or their own size either. This means they can play on only two variables, both of which determine the value of a_1 : number of rehearsals and number of concerts.

In the beginning, while they are trying to switch from amateur to professional status, ensembles have simply no means of affecting these variables. Professionalization necessarily goes along with increased rehearsal time: the desired status change implies improvement of production quality and therefore more rehearsals, though the number of concerts they will be able to sell remains uncertain given how little known they are. An organizer expresses this imperative very clearly when he explains that he cannot program "telephone concerts":

Once I said to an ensemble that I won't name, "Look, I really want to support you, we are doing a project together this year and maybe we will be able to reinvoke you next year. But I really want you to work—it can not be a telephone concert you arrange just like that." The next year I say to them, "This year we can redo the concert in Geneva." So we do it in Geneva. But they are not at all the same people. The musicians have been completely reshuffled, not the same musicians at all because those ones were not available. So I went to see the person in charge and I told him "This is not what we said. What I am interested in is having a team of young French singers who work on the same repertoire together and deepen it. Doing a telephone concert where you call each other up and get together 5 days beforehand, you rehearse three times and then do the concert—I am not interested." So he says, "But they had started in on something else. You understand, they have got to make a living, and I could not hold them to it. I took musicians who were available at the same time." That's the big problem in baroque music, it has to involve sacrifices at the start, and people have to buckle down to regular, thorough work without being sure they are going to be able to sell three or four little concerts. "...That's the way the chamber music spirit works, there's ensemble stability, you really get the repertoires down and then you take them to the audience" (Interview, December 15, 1999).

Given this state of affairs, the move from amateur to professional status at first involves increasing a_1 , and therefore increasing the ensemble's deficit. Once they have gotten over this first hurdle, ensembles have two possible strategies for diminishing a_1 . The first may be called

a business strategy: they try to compete on price. In this case they lower the number of rehearsals, which immediately affects the value of a_1 . In the medium term, however, production quality tends to fall, the ensemble sells fewer and fewer concerts, and a_1 , which began by going down, starts upward again. The opposite of the business strategy is the reputation strategy, where the ensemble works to compete on the basis of quality. In this case it decides to rehearse a great deal so as to improve the quality of its concerts. At first, a_1 is likely to increase and the deficit to deepen, as explained by an ensemble manager:

We rehearse a lot. This explains why we are relatively expensive, namely compared with foreign ensembles, the English in particular, who do not rehearse much. For a concert program that does not involve staging, if it's a composite program we rehearse 4 or 5 days. If it's an opera, which can last from 2 to 4 hours, that's something else again. Usually you need to do a good week's worth of work with the soloists and the continuo and 5 or 6 days with the orchestra before leaving on tour. For some Italian opera projects, where there is a great deal of recitative, there can be 10-day rehearsal periods with soloists and continuo. We often have to work with singers who do not know the repertoire at all, and you need time to teach them how to sing this music. You need to work at a slower pace than in ensembles working on a repertoire the company knows (interview, June 17, 1999).

Later perhaps, once the ensemble has established a reputation for itself, it can increase the number of concerts for each program. Then a_1 decreases and the deficit can start downwards. So while an ensemble's deficit necessarily deepens as it turns professional, success over the long-term can reduce the deficit. An ensemble that is just starting out can not necessarily multiply outlets for its productions, whereas a successful ensemble is one that can set up long tours. The more renowned it is, the greater the number of organizers who will want to program it.

- Different-sized groups:

We know that $D_1 = 0$ if

$$L_1(1 + a_1) = \alpha L_2(1 + a_2) \tag{10}$$

We now suppose that an organizer is willing to pay the same price for productions of different sizes (size of course varies by production seller, either an early music ensemble or a traditional orchestra). What does the ratio of early music production size to traditional orchestra production size have to be for the ensemble to come out even? From Eq. (8) it follows that

$$L_1/L_2 = \alpha[(1 + a_2)/(1 + a_1)]$$

We know that the subsidy level for traditional orchestras is 80%. This means that an early music ensemble that manages to program long tours for itself will be able to balance its budget if it manages to sell productions using a number of musicians amounting to 53% of traditional orchestra size. For an ensemble that only manages to perform its production six times, that production can only employ 40% of the number of musicians in a traditional orchestra if it wants to come out in the black. In other words, early music ensembles will have to offer productions half or less than half the size of a traditional orchestra's at the same price.

5. Conclusion

The professionalization process that early music ensembles are caught up in implies that when they turn professional they have no way to impact on two variables that, as amateurs,

they used to be able to adjust: wages paid to musicians and price they can sell their concerts for. Both these variables depend on market balances that these ensembles can affect only marginally. An assumption of the model presented here is that in competing with subsidized institutions, the ensembles can play on only two other variables: size of productions offered for sale to concert organizers, and rehearsal/concert ratio. The fact is that turning professional leads ensembles to make choices with regard to these variables that do not help them cancel their deficit. Few organizers are willing to pay the same amount for a chamber music ensemble as they would pay for a symphonic orchestra. Moreover, musical directors' careers push them to develop their ensemble via symphonic and opera productions; the ensemble therefore cannot benefit from any size effect. The rehearsal/concert ratio, meanwhile, has to be reduced as much as possible, meaning that ensemble's maneuvering room decreases proportionally with professionalization: they cannot reduce number of rehearsals without the risk of hurting production quality, and they very seldom manage to get a high number of concerts out of a single program. The model presented here, based on the particular case of early music, seems generalizable, with appropriate modifications, to performing arts domains that present the same fundamental characteristics. Early music is not the only art sector where newcomers are likely to find themselves competing with subsidized institutions on two markets simultaneously.

Baumol's model does not in itself suffice to explain the deficit dynamic. What it presents as the mechanisms (indexing of archaic-sector wages on advancing-sector wages) and the driving force (productivity differential) are not those actually at work in the situation of new market players. The mechanisms that transmit imbalance are rather the ones identified here concerning competition on the labor and concert markets. And what upsets the balance is not a long-term productivity differential but a short-term dynamic characterized by different levels of subsidies for the two segments of a single market: firmly established institutions on the one hand, newcomers on the other. Clearly the professionalization model cited here supplements more than it takes the place of Baumol's model. Though it enables us to understand how the deficit tendency is *transmitted* to newcomers, it does not answer the question of where established institutions' deficits come from. It is likely that when newcomers manage to obtain stable yearly subsidies, they find themselves in the same position as the traditional institutions were in when *they* began to penetrate the market; they then pass "cost disease" on to the *new* newcomers. Still, we need to understand why firmly established institutions cannot balance their budgets in such a way as to prevent deficits from happening in the first place. It is on this point that Baumol and Bowen's arguments become fully relevant once again. Artists' human capital is not related to their productivity, which is marginal, but wage level is determined proportionally to the former rather than the latter. Art performance receipts are upwardly inelastic, as much because of what characterizes demand for these goods—pronounced price elasticity—as because of policy arguments in favor of maintaining the economic conditions-of-possibility for cultural democratization. In other words, economic balance for performing arts institutions is defined by a two-part mechanism: newcomers index prices and wages on those of firmly established institutions; in the long-term, these institutions' balance is affected by the upward pull of wages caused by ricochet by productivity increases in the advanced sector. These two balance-determining mechanisms (the archaic sector in relation to the advanced one, newcomers in relation to established institutions) correspond to two reasoning scales (macroeconomic and microeconomic) and two constraint transmission time-scales (long-term and short-term).

Lastly, the state regulation/market regulation opposition on which bureaucracy theory models are based is clearly not relevant here. Bureaucratic decision-making procedures and lack of

oversight are not the point. What causes newcomers to catch cost disease is the *combination* of public funding and market regulation. It is because traditional orchestras are subsidized that they can simultaneously offer high wages to their musicians and low prices to concert organizers. But competition mechanisms are what “ensure” that these constraints get transmitted to early music ensembles.

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