An Analysis of Certain Aspects of the OSU Proposal to Lease Parking Operations

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April 12, 2012

Introduction

The Ohio State University is considering a proposal to lease its parking operations to a private operator. The projected lease term is 50 years. The lease agreement would transfer to the private operator certain authority to operate campus parking facilities and also would impose certain restrictions on parking operations in exchange for a one-time upfront payment by the operator to the University.

In this report, we describe our analysis of certain aspects of the proposal to lease parking operations. Our analysis views the proposal from an economic perspective to determine whether the lease has the potential to create net value for the University. Our analysis does not address associated issues, such as the use of proceeds that would be received by the University or the effects on other University activities, such as Campus Area Bus Service, that we understand are funded currently through receipts from parking operations. In our opinion, we assert that these issues can and should be considered separately from the value-creation issue that we address.

Our analysis attempts to provide a framework for analyzing the potential to create value through leasing the parking operations. It does not provide a definitive answer as to whether to lease parking operations for several reasons. Most significantly, the proposal has many aspects that are still being considered. Indeed, in our opinion, the analysis in this report can provide an approach to make a judgment once the proposal is finalized and bids have been received. Our primary conclusion is that the leasing proposal has the potential to create value for the University. Only by obtaining bids would the University be able to determine the likely value created, and thus the potential for furthering the University’s mission.

We describe the scope of our analysis, sources of value creation by an external operator, an estimate of the value that might be available to the University, and some examples of possible uses of the value received.

Scope of Our Analysis

Our analysis considers the lease of the parking facilities including operation, maintenance and capital improvements. We understand that (only) these responsibilities would be imposed on the parking operator. We do not consider other University activities that we understand are paid currently, at least in part, by cash generated from the parking operations, such as the campus bus service. Further, we do not analyze how the amount that the operator would pay to the University would be invested or used, although we briefly describe some possible mechanisms that might be considered to demonstrate that this issue can be considered separately.
Sources of Value Available to External Operator

We measure the value that an external operator would obtain from managing the parking operations as the net present value of free cash flows derived from its operation of the parking facilities. This value is measured before considering the amount that the parking operator would pay to the University to obtain the right to operate the parking facilities during the lease term.

Free cash flow is the amount of revenue (cash receipts) that the parking operator would collect each period less the amount that it would pay for operating costs, capital improvement outlays, income tax payments, and any other amounts. For simplicity, we assume that any other amounts would be minimal; in our illustration (see below) we assume these amounts are zero.

The length of a period can be modeled in several ways, e.g., monthly, quarterly, or annually. Our analysis and illustration uses annual cash flow estimates. Using this approach with an annual period length, the value to the operator can be expressed as:

$$Free \ Cash \ Flow_t = Receipts_t - Operating \ Costs_t - Capital \ Improvement \ Outlays_t - Income \ Tax \ Payments_t$$

$$Value \ Available \ to \ External \ Operator = \sum_{t=1}^{n} Free \ Cash \ Flow_t (1 + r)^{-t}$$

where \(r\) is the discount rate per year, representing the relation between the amount that the operator would be willing to pay at the beginning of the year to obtain the right to receive the free cash flow at the end of the year, and \(n\) is the number of years that the operator will manage the parking operations. For example, if the parking operator would be willing to pay $1 at the beginning of the year to obtain the right to receive an expected free cash flow of $1.06 at the end of the year, the discount rate \((r)\) would be 6 percent.\(^1\)

The discount rate is an important parameter in determining the value available to the external operator. The external operator typically does not reveal its discount rate, but the University can gain insights about the operator’s discount rate once the operator submits a bid.

The operator’s value depends on cash inflows (revenues) and cash outflows (operating costs, capital improvement outlays, and income tax payments) that it incurs during the lease term. By increasing cash inflows or decreasing cash outflows, the operator can increase the value of the parking lease. We describe several approaches that an operator might employ to increase cash inflows or decrease cash outflows.

Increasing cash inflows
The operator can increase the value of the parking lease by increasing cash inflows in several ways. Among these are increasing parking rates and increasing the number of people who use the parking facilities. Generally, these two approaches oppose each other—as the operator raises parking rates, fewer people will use the parking facilities. Among other strategies, parking

\(^1\) In our model, we assume that cash flows occur at the end of each year. This formulation can be modified if cash flows are assumed to occur at the beginning of each year. Alternatively, the length of a period can be changed to a month, week, or even day to accommodate more-detailed estimates of the timing of cash flows.
operators can develop parking rate structures that cause users to choose to pay a higher parking rate to obtain greater convenience or set different parking rates for high frequency and low frequency users.

Our current parking rate structure employs both strategies: some users pay for an annual parking permit and may be able to choose among an array of parking options (A, B, C, A/W, etc.) depending on their relation to the University. Other users who do not use the parking facilities as intensively may choose to pay an hourly or daily rate, thereby reducing their total annual cost of parking. In a few settings, valet parking is offered (e.g., the Wexner Medical Center and the Blackwell).

While some users may prefer the current parking rate structure, there is no reason to believe that this structure is optimal. Indeed, some users park at more remote parking facilities and walk past parking garages that have large numbers of open parking spaces.

An external parking operator can study parking preferences of current and potential users of the University’s parking facilities and develop a parking rate structure that offers the potential to increase cash inflows and simultaneously to enhance the “menu” of parking options available to current and potential users. Of course, one option might be to raise the rate of an annual parking permit substantially; this option can be limited by the structure of the lease agreement,2 by users’ preferences,3 and by performance metrics that the parking operator must achieve to retain the right to manage the parking facilities. In our opinion, performance metrics may be especially effective in limiting actions by the operator that users would find to pose significant degradation of current user satisfaction.

Decreasing cash outflows
The operator can increase the value of the parking lease by decreasing cash outflows in several ways. A parking operator who operates parking facilities as its only (or primary) business activity may have substantial expertise in operating parking facilities at a lower cost than an organization (such as the University) that operates parking facilities as an ancillary operation. The operator may be able to reduce operating costs by better managerial insight, or because the operator has a larger scale of operations and thereby is able to obtain better pricing for materials used in operations. Similarly, the operator might be able to reduce the cost of capital improvements because of greater managerial insight or because of economies of scale. One concern is that the operator might reduce operating costs or capital improvement expenditures to an extent that user satisfaction decreases; in our opinion, this concern can be addressed through performance metrics that will constrain the operator’s options.

By taking actions that would increase cash inflows and decrease cash outflows relative to those that would obtain under the University’s management of the parking facilities, the parking operator has the potential to create value over and above the value created by the University. A

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2 We understand that the Board of Trustees’ action places an upper limit on increases in the price of an annual parking permit at 7.5 percent for the first 10 years and 4 percent (or greater depending on inflation) in subsequent years. We also understand that these maximum rate increases can be set at lower limits before bids are solicited.

3 At the extreme, everyone could take the bus and the parking operator would receive no cash inflows.
portion of this value can be transferred to the University through the bidding process. In the next section, we present an illustration of the value that may be obtained by the operator. We then describe how the University can obtain a portion of this value—indeed a meaningful portion of this value.

An Illustration of Value Available to the Operator

In this section, we present an illustration of the framework to estimate value available to a parking operator. The illustration uses estimates of first-year receipts, operating costs, capital improvement outlays, and changes in these amounts over a 50-year assumed lease term. We do not assert that these estimates are the proper amounts to use to determine the value available to the operator, but believe that they are reasonable based on our discussions with others.4

We assume that first year cash flows to be received or paid by the operator to be:

- Receipts = $28.8 million
- Operating costs = $8.6 million
- Capital improvement outlays = $2.9 million
- Income tax rate = 35 percent

In future years, these amounts are assumed to vary as follows:

- Receipts will increase by 7.5% annually in years 1 to 10 and 4% thereafter
- Operating costs will increase by 3.3% per year
- Capital improvement outlays will increase based on the Desman/MS estimates

Note that receipts to the operator may increase by 7.5% each year during the first 10 years through either of two mechanisms: the operator can raise parking rates by 7.5% and maintain the same number of users, or the parking operator can increase parking rates by less than 7.5% per year and increase the number of users. That is, overall revenues can be increased by 7.5% by increasing usage, even if the tag rates go up by, say, only 5.5% over the next 10 years. The operator also could offer certain parking options at higher rates than at present and could lower prices for other parking options.5

We understand that the projected cash flows from the parking operations would present a low risk to a parking operator; we estimate that an operator might use a discount rate of approximately 6 percent to determine the value available to the operator. (Given that 10-year Treasuries at the time of writing this narrative were offering only about 2%, the project would provide a 4% risk premium to the operator. This might explain why we might elicit interest from operators, though 6% may historically appear to be a low rate of return). Based on a 6 percent discount rate and the estimates described above, the value available to an external operator would be $548 million. In order to obtain this estimated value, the operator would be required to

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4 We especially thank Professor Bruce Weide for working diligently to create many of these estimates and for sharing them with us. Thus, we try to reduce differences arising out of the selection of input data.

5 The bidding process might be structured so that operators would be required to disclose a pricing strategy that the operator would follow.
pay the University for the right to operate the parking facilities. We turn to this issue in the next section.

Value to OSU

The University currently creates value from operating the parking facilities, which sets the lower benchmark for the acceptable upfront payment from leasing to the operator.6

To estimate the value created if the University continues to operate the facility, we consider some alternative scenarios. In all cases, we begin with the amount that is available to the University in year 1, if it continues to operate the parking facilities, as $17.3 million.7 If the University continues to operate the parking facilities as it does currently with annual increases in parking revenues that offset increases in operating costs and capital improvement outlays, a so-called no-growth case, the value to the University would be $273 million. The project is considered to be equally risky from the University or the operator’s perspectives, which is why we apply the same 6% discount rate here as well.8 Consider now an alternative scenario. If instead the University manages to increase annual free cash flows at the rate of inflation (which has been suggested to be 3.3%), the inflation-rate case, the value to the University would be $464 million. With a University operation, is that an aggressive stance? Opinions differ on this matter. Indeed, some may suggest more aggressive scenarios. For this illustration, we take the mid-point of the no-growth and the inflation-rate case, the value that the University would obtain if it continues to operate the parking facilities is $369 million.9 One defense of this estimate is that the University has itself set $375 million as its minimum acceptable bid, consistent with value it may be creating on its own.

The incremental value that the University would receive, if any, from leasing the parking operations is the difference between the amount paid by the external operator and the amount that the University would obtain by continuing to operate the parking facilities. We next consider the amount that might be paid to the University by an external operator.

Our illustration in the previous section estimates the value to the operator would be $548 million, but it is likely that different bidders would derive estimates that differ from this amount. One bidder might develop a pricing strategy that it estimates would create more revenue while another bidder might develop a cost control strategy that it estimates would reduce annual

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6 We understand that the net cash inflows from parking are used presently for other University activities, such as the campus bus service. As described in the “Scope” section, we do not consider how these net cash inflows from parking are used for non-parking operations; we discuss below why this issue can (and in our opinion should) be separated from the decision to lease the parking facilities to an external operator.
7 $28.8 – $8.6 – $2.9 (million) (Receipts – Operating Costs – Capital Improvement Outlays). Please note that taxes are excluded now.
8 All present value calculations in this section assume a 6 percent discount rate.
9 As long as we accept that the operator has a competitive advantage in this line of business, the value to the University from operating it itself should be lower. In that sense, the exercise is hard-wired to find a gap. Of course, in a reasonable setting (possibly our illustration!), how large is the gap and what fraction of it can be captured by the University are the main issues as whether it is worthwhile to lease our parking facilities. This is apart from any benefits from monetizing current cash inflows coming to the university over the next 50 years from parking operations.
expenditures. In our illustration, the operator would be willing to pay a maximum of $548 million to the University to obtain the right to operate the parking facilities.\textsuperscript{10}

For illustration, assume that the operator would recognize that a bid below $369 million would be rejected because it would provide no incremental value to the University. The operator would be willing to pay up to $548 million. If the operator decided to “split” the incremental value that the operator would create (i.e., $548 million less $369 million) equally with the University, the operator would be willing to pay $459 million to the University.\textsuperscript{11}

This estimate is illustrative only. Bidders may use different strategies to determine the amount of the value that would be created by the operator and to determine the amount of incremental value to pay to obtain the operations. The strategy might depend on one bidder’s estimate of the value that other bidders would calculate or might be determined solely on that bidder’s estimate of value. Rather than speculate on the bidding strategies, the University has the ability to observe the outcome if it accepts bids from multiple bidders. (Apparently, the University also has the opportunity to negotiate after the bids are in, thus potentially increasing its share of the value created by the operator.)

Based on the estimates above, the University would obtain value at the time of the lease from two sources:

- $369 million, representing the present value of the amount that it would receive if it continued to operate the parking facilities for 50 years, and
- $90 million, representing half of the incremental value that the operator created
  \[= (548 - 369)/2\]

Please note that the process not only has the potential to create new value, but it also monetizes (make upfront payment) the cash flows that would otherwise come in to the University over the next 50 years.

**Possible Uses of Value Obtained by University via Lease**

In this section, we examine possible uses for an assumed one-time payment of $459 million by the operator. This section is intended to demonstrate that the decision to lease the parking operations can be considered separately from two other issues that often are discussed simultaneously with the lease issue.

For example, if the parking facilities were leased to an external operator, the parking operations would no longer generate free cash flows to pay for other University activities. By investing $369 million of the $459 million received from the operator to yield 6 percent, the University would be able to continue to pay for activities as it would if the University operated the parking

\textsuperscript{10} Although a payment by the operator of $548 million might appear to transfer all of the value to the University, the operator would earn a 6 percent rate of return on that investment.

\textsuperscript{11} How much of the value created is captured by the operator would also depend on the incremental value he can uniquely create relative to the other competing bidders.
facilities. In addition, the University would have an additional $90 million available for other purposes.

Alternatively, the University could increase the endowment by $459 million. Of the increase, a portion ($369 million) is simply “monetizing” the value that the University would otherwise obtain over 50 years.

If the University invested the proceeds, it also might seek to achieve a higher expected rate of return than the 6 percent assumed above. For example, if the University invested with an objective of achieving an expected rate of return of 9 percent, by taking on higher risk investments comparable to the University’s current investment approach, an additional $151 million would be generated.12 This is a controversial claim. After all, a low-risk investment at 6% should not be any different in value compared with a commensurately higher-risk investment expected to yield 9%. But, if the University is exhibiting an appetite for greater risk in its endowment investments, then having the monetized amount upfront creates the opportunity to explore additional investment options.

Conclusion

The decision to lease the parking facilities to an external operator is complex because there are many factors to consider. Our analysis is intended to show those factors that are fundamental to the decision and those that are not. Specifically, the issues of how free cash flows are used currently and how the proceeds from the lease would be used can be considered separately. In our opinion, separating these discussions would help to simplify an already complex decision.

In our opinion, the leasing decision, in isolation, requires an analysis that can best be performed after bid details are available. An important element of the bid details is the set of performance metrics that would constrain the operator’s actions and assure that operating performance meets objectives for user satisfaction.

12 This amount is the present value of a 3 percent higher expected rate of return on $459 million.